IIM Indore

Digital Convention – Details of Digital Initiatives by IIM Indore

A. Education

1. IIM Indore was one of the pioneers in using technology for Distance Executive Education Programmes. We had earlier partnered with NIIT Imperia, Reliance Web Store, Aegis Global Academy , Manipal Global Education Services Private Limited and Edulive to offer such programmes. Currently we have a tie up with ICICI Direct Centre for Financial Learning (ICFL) and are offering the following programmes through Broad Band Education.

i. Certificate Programme in Financial Markets (CPFM)
ii. Post Graduate Certificate Programme in Finance (PGCPF)

For the above programmes, ICFL has set up a studio on campus and the courses are broadcast to ICFL centres across the country.

2. IIM Indore is using digital learning in the preparatory courses for PGP, EPGP and PGPMX Programmes. For PGP, we are using Massive Open Online Courses (MOOCs) based Financial Accounting Course developed by IIM Bangalore and online Communication course developed by M/s. Pearson. For EPGP and PGPMX we are using Harvard online modules for preparatory programme.

3. IIM Indore is using simulation in multiple courses across the curriculum. These simulations are being sourced from multiple vendors. The Institute has a policy of complementing case based learning by simulation in order to enhance effectiveness of learning.

4. The Institute has plans to expand the Broadband Programmes to other sectors. The Institute also plans to create courses to be offered through MOOCs platform. These initiatives are part of the future development plan of the Institute.

B. Other Digital Initiatives

1. To support the Digital India Initiative of Government of India, the Student Activity Council (SAC) of IIM Indore took the initiative to make all transactions on campus cashless. This initiative was launched on December 9, 2016.

2. The Institute is now requiring all service providers to campus to provide digital payment alternatives as a requirement of the tender process.

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Digital Transactions: Initiatives By IIM INDORE

Features of the Innovations made by IIM INDORE

- In the month of December 2016, IIM Indore took the initiative by embracing digital transactions in the retail ventures and outlets making it a Cashless Campus.
- The transactions are made using a card which is issued to the participants and staff.

- Instead of paying liquid cash, the e-wallet which is pre-loaded with money can be swiped across different outlets across the campus
- The Student Activity council of IIM Indore took up the initiative of implementing a system across the campus (Eateries, department stores, fruit & vegetable store and mess).

- OnUs payment solutions is the vendor which set up the infrastructure and helped in implementing the system in the campus.

The solution consists of three basic elements

- The personalized card with the student/staff
- The Point of Sale (POS) machines with the merchants
- The Back-end from OnUs

Benefits accrued to students/faculty due to its implementation

-Apart from the OnUs card people can use their Debit Card/Credit Card as well.

-It takes care of cash crisis in proper denominations

-Customer receives the accurate summary of sale proceeds

-Customer can keep a record of the transactions made and the available balance

- The Institute has invited tenders for catering services to be operational with effect from 01-01-2018
- As per tender clause, it is mandatory for the qualified bidders to install POS machine or any other cashless system accepted to the student community and others.

Adoptions of this Initiative by Other Institutions

- The dynamics and the infrastructure of each Institution is unique. Other Institutions can replicate/modify the process adopted by IIM, Indore according to their peculiar requirements.

-Since use of cards like OnUs are not limited to a single player in the market, there are multiple options available and digital transactions through other modes like debit card/ credit card/ UPI/USSD/Aadhaar Pay and IMPS may also be explored

Future Road Map

- We are in the process of making all the transactions as within the campus.
- Based on the progress and feed back received, further initiatives shall be planned for its effective implementation and further fine tuning.

Thank You

IIM Kozhikode

Digital Education Initiatives at lIM Kozhikode

One of the challenges faced by lIM Kozhikode (lIMK) during inception was that the Institute was far from major industrial or commercial centres. To overcome this challenge, and to connect with the industry, **lIMK pioneered the Interactive Distance Learning (IDL) Program for working executives, first of its kind of teaching mode in the entire Asia Pacific region way back in 2001**. This unique teaching mode started with one year Executive Management Education Programmee with 300 class contact hours.

The two year Executive Post Graduate Programme in Management is today among the most rigorous and the most sought after executive programmes in management in the country. This programme has 738 class contact hours. The courses are conducted over weekdays (6.45 to 9.45 pm) and weekends. Participants attend sessions from the classroom centre of the current infrastructure provider (Times Centre for Learning Limited, part of The Times of India Group) apart from attending three In-campus modules at lIMK campus.

lIMK also conducts one year certificate programmes in various functional specializations like Operations Management, Strategic Management, Marketing Management, Human Resources Management, Finance Management, and IT Management. These programmes have one week In-campus module. **e-learning Management Development Programmes (eMDPs)** are also part of the offering from lIMK on the interactive platform.

The EPGP programme has evolved in terms of session delivery, making best advantage of the IT infrastructural development in education that has happened over the last 15 years and thus helping working professionals to learn management education along with work without having to quit their jobs to pursue career aspirations.

The programs are designed by lIMK and the classes are typically offered by lIMK faculty members and adjunct faculty members as identified by lIMK from two studios in lIMK Campus to 52 plus classroom centers across country through technology based interactive synchronous mode.

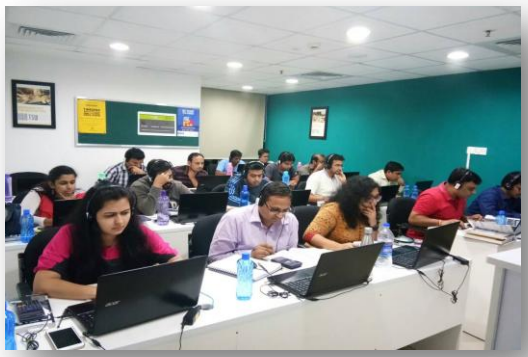
Salient Features Digital Education Initiatives at IIM Kozhikode

- The two year EPGP at lIM Kozhikode was the first interactive learning programme to be accredited by Association of MBAs (AMBA).
- Unlike a typical MOOC based programme, the IDL program format of lIMK allows for live faculty-student interactions even on the technology platform. Students can reap the benefit of clarifying doubts during the session, while the faculty has considerale freedom with pedagogy, including methods that require classroom participation.
- It is also remarkable that the programme has been very well received in by participants from smaller cities and towns.
- Having over 3000 plus Alumni in this teaching mode and growing year on year, it is a testimony to the fact that executive education programmes of lIMK are widely accepted in the industry and working professionals gain value from these programmes.

Studio at IIMK

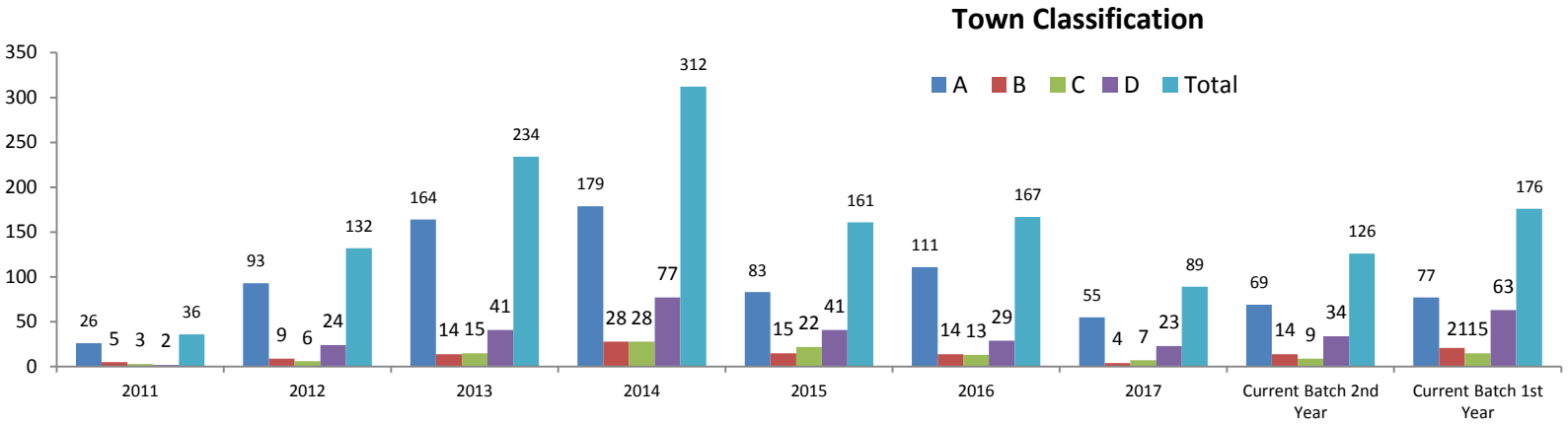


Learning Center

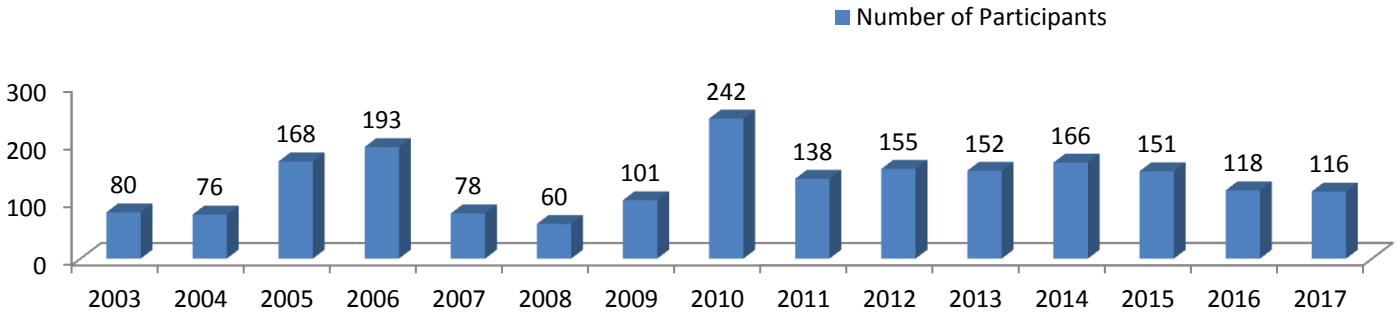


Year-wise Number of Graduated Participants

Two Year Executive Post Graduate Programme



One Year Certificate Programmes



IIM Kashipur

Digital Initiatives by IIM Kashipur

IIM Kashipur has adopted many digital interventions in the last one year which have been presented below:

1) Started Online Research Seminar Series via "GotoMeeting" Platform:

IIM Kashipur offers an Executive Fellow Programme in Management (EFPM), since 2014. EFPM Program was started to promote more close interaction between industry and academia and to leverage on the rich industry experience of the participants for industry relevant research. One of our objectives to run EFPM course was to expand the research culture at the institute and strengthen the scholar community and interactions. Since Executive Fellow Students visit institute only for a short period, it was becoming difficult to increase the research interactions among scholars. As a solution, last year we started the **Research Seminar Series** by regular FPM and EFPM scholars from various years where scholars shared their research activities with others.

To ensure participation and even presentations by EFPM scholars, residing in different parts of India and some even abroad, we used an online meeting platform called "go-to-meeting", which allowed scholars to make presentations, as well as join the presentations, sitting at their respective places. Scholars found it very helpful in learning from the work of other scholars.This isan example of digital investment by the institute that enhanced the education quality of the institute.

"Go to Meeting" is an online meeting solution, similar to CISCO's WebEx system, which allows organizations to connect to all kind of stakeholders via internet. Besides its regular PGP and Fellow students, IIM Kashipur has number of other stakeholders with whom we need to interact, collaborate and work regularly. These include:

- Executive Fellow Students
- Short term online program students
- Industry Experts and resource persons
- Practicing visiting faculties
- Students from other IIMs
- Project Collaborators and many more

Being placed at a place, not easily accessible by such stakeholders, we have always faced challenges to enhance our academic base as well as industry-academic collaborations for projects, class inputs and placements. We bought "GotoMeeting" license for USD 588 for a year that enabled a participation of up to 100 attendees.

Besides EFPM seminar series, our faculty is using this platform for interaction with their doctoral students, e-meetings with industry experts, presentations in PGP classes by industry practitioners and for research and consultancy project coordination.

We intend to explore the applicability of this online platform in future to organize Inter IIM webinar series, industry and government trainings and international collaborations for research and teaching. We think other institutes can also take a benefit of similar online platforms for improvising their academics, consulting and research activities.

2) Online Certification Courses :

IIM Kashipur is running online executive programmes (Certificate Courses) on the platform provided by an organization name Talentedge. Courses are offered on revenue sharing basis with Talentedge. Four such programmes are currently running, and a few are expected to start soon.

The objective of running online certification courses is to cater to the need of multiple people who can't leave their job and are not able to attend the executive programme run by IIM Kashipur on Weekends at Dehradun, being placed at different locations within and outside India. These certifications shall help the participants to enhance their capabilities to work in their organizations and prepare them for opportunities in the domain of their interest. The platform provided by Talentedge is very effective in ensuring a regular class type environment.

We have participation of executives, not only from various states of India but also some from international locations, including Singapore, Dubai, etc. It is also allowing faculty to explore further interaction with industry on projects and consultancy.

3) E-Books in PGP courses

As a green initiative, the institute is promoting the use of online/electronic textbooks for PGP and other programmes.

4) Online Placement Interviews

IIM Kashipur being far from Delhi airport, we face logistics problem to get industry people to Kashipur. This problem is solved by digital means.Last year 30% of the final placement and 50% of the summer placements happened though video conferencing/skype.

5) Online Library Resources

The institutes has procured most of its library resources (journals, reference books, database etc.) in digital format. The members of the library can access the resources from anywhere using Athens platform.

6) Other Digital Initiatives:

Other initiatives include online payment system, online IT Help Desk and Leave Management System.

Future Initiatives:

The Institute in its new campus is going to establish a smart classroom. This classroom will be used to share the courses delivered on real time with partner institutions and to receive similar contents from them. In future, IIM Kashipur will be able to offer its elective courses to the students of partner institutions and the students of IIM Kashipur will be able to study courses run by expert faculty members in other Institutions.

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Digital Learning Initiatives at IIM Bangalore

Digital Learning at IIM Bangalore

The Indian Institute of Management Bangalore has over the years developed several strong models for increasing the scope and scale of management education using digital technologies. These include launching distributed classrooms for delivering courses in the Post-Graduate Programme in Software Enterprises Management (Chennai and Bangalore); digitally linked classrooms between IIM Bangalore and IIM Vizakapataman. IIMB also has multiple service providers to facilitate distance learning in its Executive Education Programmes.

In the recent years, IIMB has started a number of new initiatives including:

- Massive Open Online Courses (MOOCs) in management through SWAYAM, edX and IIMB's own portal IIMBx
- Video knowledge base – through the KITES initiative
- Offering doctoral courses across partner IIMs using a distributed classroom approach
- Setting up a virtual classroom for facilitating distributed classroom based learning and blended learning (not commissioned as yet)

The following sections give a brief description of some of these programmes.

IIMBx MOOC Programme

Key Highlights of 2016-17

IIMB established the IIMBx Programme in August 2014. To-date IIMBx has created nearly 30 unique Massive Open Online Courses (MOOCs) which are being offered on multiple platforms including IIMB's platform based on Open edX. IIMBx currently has nearly ten courses announce on the on national SWAYAM platform, and this number would be increased steadily. Nearly 30 courses are also available to students on the edX platform. IIMB is also playing a key role in SWAYAM, as a National Coordinator for management education.

During 2016-17 IIMB has delivered MOOCs in the following formats

- Open MOOCs (on SWAYAM and edX platforms)
- Women Startup Programme (NSRCEL – Incubation Centre at IIM Bangalore)
- Blended MOOCs (as part of EEP)
- MOOCs for Academic Partnership Programme
- Faculty Development Programme (for adopting MOOCs into b-school curriculum)

On the IIMBx portal (www.iimbx.edu.in) IIMB offers MOOCs targeted at students in other institutions under and Academic Partnership Programme, focused on enhancing management education in India using Blended MOOCs.

Open MOOCs

Since July 2015, the IIMBx MOOCs Programme has offered 47 MOOCs, including 26 unique MOOCs and 21 re-runs. In 2016-17, IIMBx ran nine unique MOOCs and 13 rerun MOOCs on the EdX platform (details in Table 2.) IIMBx also offered a 6-course package title XSeries on 'Fundamentals in Business Management' that saw 1,04,000 enrolments across 6 MOOCs. In 2017-17, 2236 MOOC participants paid for the Verified Certificate. Over 500,000 students from 191 countries have registered for IIMB courses. Registration details, as well as profile of learners, are as given in Table 1.

Table 1: High-level IIMBx MOOC Enrolment Data (As on May 2017)

MOOC Stats	**Completed MOOCs**	**Current and Upcoming Courses (new & re-run)**	**Total**
Total enrollments	4,07,079	80,956	4,88,035
Current enrollments	3,42,524	74,890	4,17,414
Total Verified enrollments	5,890	461	6,351

IIMBx MOOCs attract learners from almost every country in the world, with Indians comprising 30%, followed by the U.S. with 17%, U.K. with 3% and other countries like Egypt, Canada, Brazil, Kenya, Nigeria, Mexico, Germany and France.

Table 2: MOOC Participant Details (As on May 2017)

Metrics		**Total**
Enrollment Metrics	Total Enrollments	**4,88,035**
	Current Enrollments	**4,17,414**
	Verified enrollments	**6,351**
Age Metrics	Median Student age	29
	% of Students of age 25 and under	32.4%
	% of Students 26 to 40	52.6%
	% of Students 41 and over	15.5%
Education	High school diploma or less	17.9%
	College degree	46.1%
	Advanced degree	34.1%
	No. of Doctorates	**9,188**
Gender	Female	27.4%
	Male	72.6%
Geography Metrics	Total countries represented	191

MOOCS on SWAYAM

IIMBx has offered 6 MOOCs on SWAYAM – India's MOOC Platform initiated by MHRD, GoI. IIMB is also the National coordinator for management education on the SWAYAM platform, influencing MOOC guidelines and policy for SWAYAM.

Table 3: IIMB Courses on SWAYAM (Completed or Scheduled to start before December 2017)

No	Course Title	Faculty
1	Introduction to Operations Management – 1	B Mahadevan
2	Introduction to Accounting - 1	R Narayanaswamy
3	Strategy and the Sustainable Enterprise	PD Jose
4	Innovation and IT Management	Rahul De
5	Statistics for Business – 1	Shankar Venkatagiri
6	Managerial Economics	Subhashish Gupta
1	Introduction to Investments	SG Badrinath
2	Management Accounting for Decision-making	MS Narasimhan
3	Introduction to Marketing Essentials	Ashis Mishra
4	Customer Relationship Management	Shainesh
5	Introduction to Corporate Finance	Ashok Thampy
6	Predictive Analytics	Dinesh Kumar
7	Introduction to Strategic Management	PD Jose, Rejie George and Sai
8	Strategy and Sustainability	PD Jose
9	Organization Design for Competitive Advantage	Sourav M
10	Managerial Economics	Subhashish Gupta

MOOCs for Social Impact

MOOCs by their primary objective of improving access to high-quality education contribute to high levels of social impact. IIMBx MOOCs, in particular, have not only provided more than 60,000 Indians with free access to management education, but they are also set to engender positive impact on the Indian society.

Regional Language Transcripts

Every IIMBx MOOC provides Hindi sub-titles for the videos. So far, more than 200 hours of videos have been translated into Hindi. IIMBx has also translated two courses into Kannada and is working on translating one course into Japanese – this has been done as part of CSR funding from Mitsubishi Corporation India.

Blended Learning

Large-scale adoption of MOOCs lies in its effective blend with in-class teaching, popularly known as 'Blended MOOCs.' The IIMBx MOOC Programme has put in place programmes to effectively promote and implement blended learning – both at IIMB as well as other management educational institutions in India.

To offer blended programmes, IIMBx has entered into an R&D collaboration with IITBombayX with the aim of focusing on research on pedagogy in digital learning through collaborative research programmes. As part of this partnership, IIMBx has launched its learning portal – https://iimbx.edu.in – based on the Open EdX platform.

Blended MOOCs have been offered by IIMBx in both executive education as well long duration programmes of the Institute. However the most impressive have been the use of the entrepreneurship course in a startup programme for Women entrepreneurs offered by the NSR Centre for Entrepreneurial Learning (NSRCEL). The 1700 women who took the MOOC, 100 were invited to the campus, and 15 eventually were given an opportunity to be a part of the incubation centre at NSRCEL.

Academic Partnership Programmes

In 2016, IIMBx launched its Academic Partnership Programme for academic institutes to enhance their campus offerings through the adoption of IIMBx MOOCs. On successful completion of such programmes, students receive IIMBx certificates. These programmes are aimed at capacity building for faculty in Indian management institutions by offering them guidance from IIMB faculty on blending MOOCs in the classroom.

Academic Partnership programmes from IIMBx are offered in two formats.

- Online certificate programme in Fundamentals of Business Management (UG students)
- Specialised Management Courses in a wide range of disciplines (II Year MBA students)

Faculty Development Programmes

The Blended MOOCs Faculty Development Programme was conducted for faculty to share insights on the potential of using MOOCs in a blended format in Indian management institutions. IIMB has so far conducted three workshops at Bangalore and Delhi and reached out to over 500 faculty members from other business schools and universities.

MOOCs: Summary

In 2016-17, the IIMBx MOOC Programme strengthened its presence in the MOOC space in an international arena by creating high-quality MOOCs. These MOOCs have received excellent feedback from learners (https://www.coursetalk.com/search?q=Indian+institute+of+Management+Bangalore) and edX and are on par with the top MOOC-producing universities.

With Academic Partnership Programmes and SWAYAM, IIMBx MOOC Programme is also paving the way for adoption of MOOCs in Indian management education. Corporate Programmes also show strong potential for revenues and will be explored in 2017-18.

In 2017-18, the programme aims to work towards:

- Enhance MOOC portfolio on an ongoing basis
- Offer Blended SPOCs to academic and corporate partners on the IIMBx platform
- Launch MOOC-based Technology and Management Programme with IIT Madras CCE
- Onboard ten academic partners for School Partnership Programme
- Partner with 20 schools in collaboration with NSRCEL to launch MOOC-enabled Entrepreneurship Programme
- Increase adoption of MOOCs in Indian management institutions

IIMB KITE (Kedia Initiate for teaching Exponentially)

The IIMB-KITE platform was set up to make quality business education accessible to everyone across the globe by taking education from our campus to students anywhere in the world using the power of technology. This vision caters to the needs of the society today - the need for management education to prepare capable business leaders across the world. Lectures are available on this platform across several areas of management including entrepreneurship and management including leadership, corporate governance, ethics, marketing and self-management.



Anytime Anywhere Learning

About IIMBx

IIMBx is founded on the philosophy that management education has strong potential to transform our educational systems and that high quality education must be available to all unconstrained by limitations imposed by location, finances or prior educational background.

The vision of the IIMBx programme is to use digital learning to enable widespread access to management education. Led by the faculty at IIM Bangalore, IIMBx offers online courses and programmes covering core and advanced business and management subjects.

Online programmes by IIMBx use technology to enable anytime, anywhere learning in a global classroom.



1 Best-in-class Business and Management Faculty

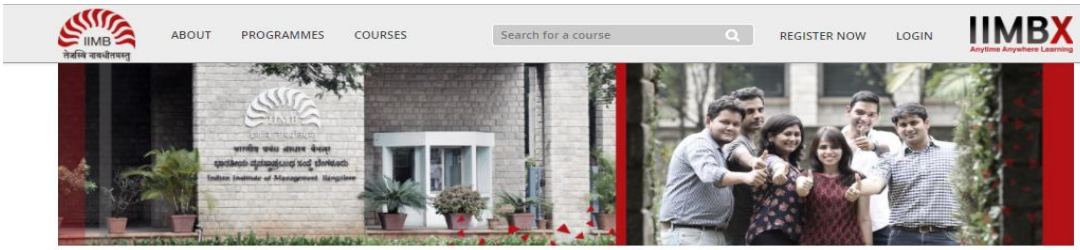
IIMBx is a fusion of knowledge from best-in-class business and management faculty and state-of-the-art educational technology at IIM Bangalore.

2 Wide Range of Management Courses

Digital courseware from IIMBx offers learners a collection of courses in subjects ranging from Predictive Analytics to Customer Relationship Management and from Foreign Exchange Markets to Entrepreneurship.

3 Opportunity to Upskill with IIMB

Online courses at IIMBx are designed to give students, working professionals and lifelong learners the opportunity to learn online from IIM Bangalore and upskill themselves for academic and professional careers.



Course Catalog



IIMBx
IIMBDemox
IIMBx Demo Course

Starts: Anytime, Self-Paced



IIMBx
OB102x
Organizational Design: Creating Competitive Advantage

Starts: Feb 2018



IIMBx
ST101x
Introduction to Strategic Management

Starts: Apr 2017



IIMBx
EP101x
DO Your Venture: Entrepreneurship for Everyone

Starts: Apr 2017



IIMBx
AC101x
Introduction to Accounting - 1

Starts: May 09, 2017



IIMBx
AC101x_R1
Introduction to Accounting - 1

Starts: May 09, 2017



IIMBx
FC101x
Introduction to Corporate Finance

Starts: Nov 2017



IIMBx
ES101x
Introduction to Managerial Economics

Starts: May 09, 2017

IIMB KITE (Kedia Initiative for Teaching Exponentially)

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Building a World Class Retail Ba...



Emerging Trends in Finance



FDI FII and WTO



Nexus 2016 : Keynote Address

IIM Kozhikode

Digital Education Initiatives at llM Kozhikode

Motivation and the Context:

The need for high quality education catering to a large number of students is increasing in India. In order to exploit the opportunities provided by the new economy, the average time an individual needs to spend in getting formal education from colleges is drastically reducing, there by prompting institutions of higher learning like IIMs to provide expertise to the learners in both the formal and informal sectors.

The concept of 'Learning while earning' an alien concept in the developing economies a few years ago is gaining ground now a days.
The rapid growth of the economy has brought in fresh challenges to the managers and technologists of the Indian corporate world. To remain effective in the wake of international competition and changing times it has become mandatory for Indian companies to deploy the latest management and technology tools in their organisations. The need for large number of professionals, especially in sun rise sectors like fin-tech, data analytics has resulted in the reduction of the average age of entrants, making it difficult for them to acquire a good knowledge of these tools in their formal academic period itself. The distance learning centres of Universities, which uses conventional modes, are not very effective to impart state-of-the-art learning to the incumbents. More than a decade old Interactive distance learning (IDL), a pioneering effort by IIM Kozhikode (IIMK), bridged this gap by providing cutting edge management education through state-of-the-art technology.

Infrastructure, Implementation and Working:

The infrastructure facility includes hardware, communication infrastructure, software and humanware. The IDL programmes are offered from the studios at IIMK. They are beamed to a Centralized facility and later beamed back to classrooms at various locations in India. The schematic representation of the working of the model is shown in the figure given below.

The prerequisites for operationalizing this model are hardware, software, communication network, and Classroom infrastructure. IIMK outsourced the entire infrastructure required by entering in to a partnership with HECL in the year 2001. At that juncture the partnership model was found to be appropriate for the following reasons:

- Proprietary nature of technology
- High obsolescence rate -fast changing
- Expertise to innovate on technology especially on broad band
- Experience in technology deployment
- Cost and reach

Infrastructure

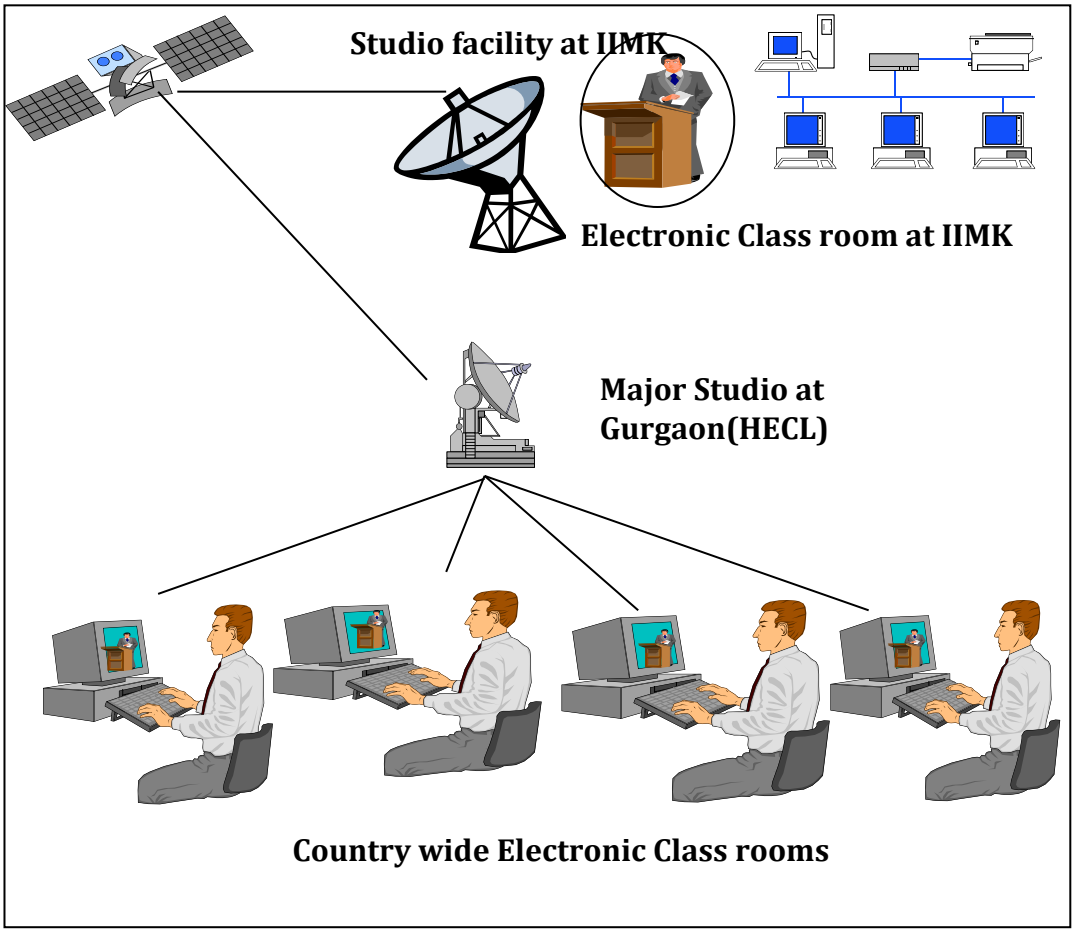

Figure 1: Schematic representation of Interactive Distance Learning Model

Working

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Benefits:

Learners and teachers experience synchronous e-learning as more social and avoid frustration by asking and answering questions in real time. Synchronous sessions help learners feel like participants rather than isolates.

This model overcomes the important limitation of MOOCs- facilitating meaningful conversation in a classroom with thousands of students. Although electronic means like message boards, forums, chat rooms, etc., are supposed to reduce this shortcoming but the intimacy of face-to-face communication is lost, emotions often misunderstood.

Adoption by other Institutes

Step 1:	Development of the Programme content consistent with the objectives of the IDL Centre. Establishing the back office and front office's in the Institute.
Step 2:	Deciding on the quantum of outsourcing viz., technology, classroom infrastructure
Step 3:	Identification of Technology and Platform consistent with the Programme objectives
Step 4:	Feasibility and Evaluation of alternative technologies/vendors available
Step 5:	Customization of technology or platform, if required
Step 6:	Demonstrations and Trial runs
Step 7:	Executing the contracts and agreements
Step 8:	Admissions Process
Step 9:	Orientation and Commencement of classes.
Step 10:	Review and Auditing of the progress.

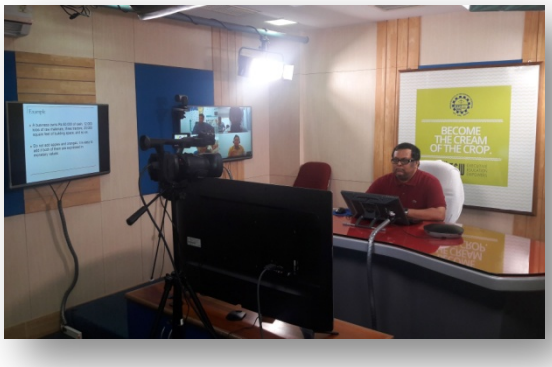
Salient Features Digital Education Initiatives at IIM Kozhikode

- The two year EPGP at llM Kozhikode was the first interactive learning programme to be accredited by Association of MBAs (AMBA).
- Unlike a typical MOOC based programme, the IDL program format of llMK allows for live faculty-student interactions even on the technology platform. Students can reap the benefit of clarifying doubts during the session, while the faculty has

considerale freedom with pedagogy, including methods that require classroom participation.

- It is also remarkable that the programme has been very well received in by participants from smaller cities and towns.
- Having over 3000 plus Alumni in this teaching mode and growing year on year, it is a testimony to the fact that executive education programmes of llMK are widely accepted in the industry and working professionals gain value from these programmes.

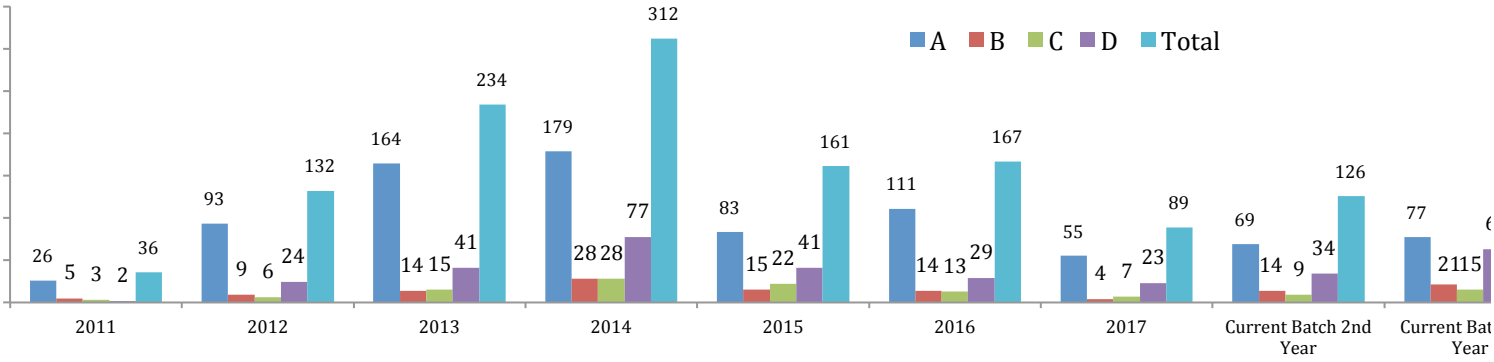
Studio at IIMK **Learning Center**



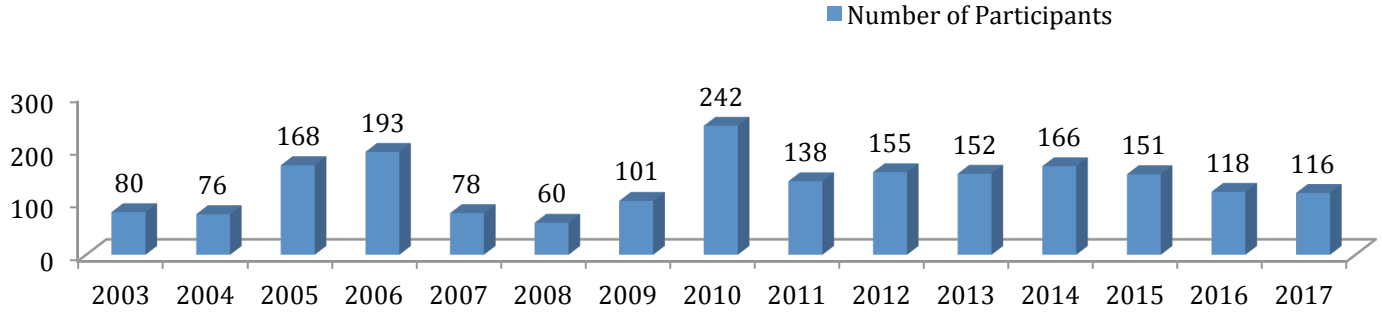


Two Year Executive Post Graduate Programme

Town Classification



One Year Certificate Programmes



IIM Rohtak

IIM Rohtak - Brief write-up on work done in creating digital content

IIM Rohtak has taken initiative to be digital in order to reduce the carbon footprint and in line with the Digital India initiative of the Government of India. The institute has remodeled the whole curriculum on the digital platform. This helps in facilitating:

Academics:

- E-books are provided in place of hard copies
- Case studies are deployed as soft copies
- Submissions of assignments
- Access to several reputed e-journals
- Elixir-The online portal of IIM Rohtak. It facilitates automated time-based submissions and one-stop access to all instructions provided by the professors
- Simulation of real life business scenarios

Students:

- The whole admission process has gone online- from offer acceptance to the payment of fees
- Leave application filing and checking the status
- Selection of electives
- Declaration of results
- Provisional registration
- Schedules for examinations and classes
- Application for student insurance

Faculty:

- Faculty feedback form is now being filled on the online form
- Online quizzes
- Class schedules and seating arrangement of students
- Leave application for faculty members

IIM Udaipur

Digital Initiatives at IIM Udaipur

IIMU
भारतीय प्रबंधन संस्थान उदयपुर
Indian Institute of Management Udaipur

IIM Udaipur

Gist of Digital Initiatives at IIM Udaipur

- Digital Library
- Implementation of Moodle LMS
- Implementation of ERP
- National Academic Depository

About Moodle

Moodle is an integrated and personalized learning platform which provides digital ecosystem for academic activities

Benefits of Moodle:

- Open Source
- Fully Customizable
- Scalable
- Robust, Secure and Private
- Option of server based as well as web based

Moodle is currently being used by 90 million users worldwide

Source: https://mood

mplementing Moodle

Moodle is an open source, completely free software provided through Moodle Project

Moodle is fully customizable and modifiable. User organizations can add tools and plugins to the software as per requirements

Organizations can also take assistance from various Moodle Partner service companies which specialize in customizing the software as per need of the user organizations

Moodle consistently evolves through support of a strong community and plugins shared by users therein

Source: https://mood

Features of Moodle

Communication platform

Course wise repository creation

Disseminating resources to students

Discussion Forums

Quizzing

Assignment submission and integrated plagiarism detection software

Online surveys and in-class polls

Evaluation record maintenance

Benefits of using Moodle

- Structured repository of resource material
- Real time and objective evaluation of quizzes
- Customized report generation to monitor progress
- Convenient access to instructors and students
- Structured trail of communication with students
- Effective plagiarism control
- Systematic maintenance of evaluation records
- Saving of paper

Adoption Assistance to Other Institutions

- Sensitizing about utility of Moodle as course management platform
- Assistance in connecting with a reliable Moodle Partner Service Companies
- Live demonstration of Moodle in use for modules like quizzing, assignment submission, etc.

Future Roadmap

Not all the functionalities available in Moodle are currently being used. Following features may be brought into implementation in near future:

- Online Surveys
- In-class polls
- Wiki (using online collaborative platform for group activities)

www.iimu.ac.in

THANK YOU

IIMU
IIM Udaipur

IIM Udaipur

Submission to National Convention on Digital Initiatives

June 30, 2017

As one of the new IIMs, IIM Udaipur has recently moved to its new permanent campus. While all classes and key support functions are fully operational, the infrastructure and facilities on the campus are not yet complete. Therefore, IIM Udaipur has not begun to create original digital content.

However, the Institute makes active use of many digital resources to optimize communications and increase management efficiency:

- Digital Library
    - IIMU has access to a comprehensive range of world class global databases, electronic books and electronic journals
    - The Library is fully automated with open source cloud-based software for all library transactions
    - The institute is in the process of using open source software to create a repository of research articles, presentations and other learning resources produced by IIMU faculty
- Improving Communications, Learning and Evaluation through LMS (Learning Management System)
    - IIMU uses Moodle as a learning platform to create a virtual connection between our students and faculty, inside and outside the classroom
    - Simple tasks like resource dissemination to complex activities like quizzing are handled through Moodle

      A detailed note on Moodle LMS is provided in annexure I
- An administrative and managerial tool
    - There is Wi-Fi access throughout the campus with internet bandwidth of 2.1 GBPS to provide students, faculty and staff with uninterrupted access to digital resources
    - The institute has implemented a comprehensive ERP system for activities like admissions, exams, documents and records, and a range of financial activities and transactions
- National Academic Depository
    - The institute intends to enter into an agreement with the National Academic Depository to ensure that all diplomas and eventually degrees issued by IIMU are duly registered

ANNEXURE I

MOODLE @ IIM Udaipur

MOODLE - LMS:

LMS is an abbreviated form which stands for Learning Management System. It is a commonly used jargon term for "Moodle" which is a free source and e-learning software platform, also known as a Course Management System, Learning Management System, or Virtual Learning Environment (VLE). It is very popular among educators around the world as a tool for creating online dynamic web sites for their students.

Moodle was originally developed by Martin Dougiamas to help educators create online courses with a focus on interaction and collaborative construction of content, and is in continual evolution.

Moodle can be used in many types of environments such as in education, training and development, and business settings.

IMPLEMENTATION AT IIM UDAIPUR:

As part of Indian Institute of Management Udaipur's effort to automate and increase the institution's digital foot-print and extend its pedagogy with technology-enabled learning initiatives, it engages with an ICT Consulting firm as its technology-enabled learning partner. IIMU is closely working with the Service Provider (SP) for implementing the MOODLE platform with a 3/5 year contract. Some of the major services administered by SP include providing value added services with respect to MOODLE LMS, including but not limited to software maintenance, integration with other IT solutions and customization of functionalities. The scope involves the deployment, capacity building, maintenance and custom development of Virtual Learning Environment (VLE), implemented as a web application, for enabling blended learning initiatives and improving administrative efficiencies.

Functional support –

1. Support in administrating Moodle, resolving technical issues, changes in configuration
2. Fault finding in transaction
3. Detailing procedures and paths
4. Whenever any major changes/new module developments are done, following documents are to be provided
    - Functional specifications of the changed module/new module
    - Technical specifications of the changed module/new module
    - Updated configuration document
5. Change management: changes to the configuration should be handled as per the business

From time to time, the SP organizes in house training workshops for IIMU faculty members to better equip them with the latest changes in the Moodle LMS. The SP follows a ticket management system to

resolve any issues. Most of the issues are resolved within a day. The SP also shares quarterly work report with IIMU regarding major changes/update with LMS.

Currently, Moodle is provided as a web based application. However, IIMU is working closely with the SP to host Moodle on a local server.

IIM Udaipur started using Moodle in year 2012.

HOW MOODLE WORKS:

Once the platform is hosted with the help of a Moodle Partner, the administrator creates courses on the platform and allocates these to respective instructors/ faculty members with editing rights. The administrator also registers the participants/ students for each course and provides them with view/ submission rights. Both the instructors as well as the participants have individual login ids and passwords which makes the system secure. Once this process is complete, a virtual link is created between the instructors and the participants.

The platform is capable of handling extensive components of teaching-learning process and at IIM Udaipur we are already conducting the following activities on Moodle:

1. Communication with students through group as well as individual messaging.
2. Resource dissemination prior to and after the session. It includes circulation of articles, documents, session slides, etc.
3. Online interaction on course relevant issues through active discussion forums
4. Submission of assignments and project reports duly vetted through plagiarism reporting software, Turnitin, which has been integrated into the Moodle platform
5. Conducting quizzes with variety of question types
6. Providing online practice assignments to students
7. Maintaining evaluation records of students
8. Report generation at different levels: student level, course level and class level.

With Moodle, we are able to reap many benefits which technology has to offer. Some of these are:

1. Structured repository of resource material
2. Real time evaluation of quizzes
3. Objectivity in evaluation
4. Convenient access to instructors and students
5. Structured trail of communication with students
6. Effective plagiarism control
7. Systematic maintenance of evaluation records
8. Saving of paper

HOW MOODLE CAN BE ADOPTED BY OTHERS:

As Moodle is an open source software, the direct cost of implementation is virtually nil for institutions having sufficient technical expertise. There is plethora of resources available from the Moodle community which may help in installation of LMS in the organization. As Moodle is a flexible and customizable software, users can develop and install their own plugins for specific requirements. In order to get it customized and/or for standardized implementation, institutions can also take the services of trusted Moodle Partners who will provide continuous support and training for the same. More information in this regard can be found at: https://moodle.org/

Source: https://moodle.org/

IIM Calcutta

Indian Institute of Management Calcutta

Long Duration Programmes (LDP)

The Long Duration Programmes offered by IIM Calcutta are aimed to impartin-depth learning of management concepts and practices to working professionals through programmes spread over six to twelve calendar months. IIM Calcutta has been offering such programmes from 1999. Initially such programmes were offered in modular fashion wherein participants were required to visit IIM Calcutta campus multiple times for class room learning. Such model, however, inherently suffered from scalability problem. While on one hand, participants found it difficult to get away from their offices in multiple stretches of days, the Institute on the other hand found it difficult to host large batches of participants in the campus. Thus, it was not possible in this format to reach out to a larger pool of working executives.

However, through these programmes, the Institute realized that there exists a substantial market of working executives who yearn to learn about different facets of management, but cannot afford to leave their place of work for a long period. As a consequence, the Institute had long been on the lookout for a mechanism to reach out to these executives in a mode that is scalable, and at the same time, convenient to the participants. In 2003, in a pioneering move in the country, IIM Calcutta introduced a novel method of imparting quality education to working executives while ensuring the desired priorities on quality of education and convenience of participants. The solution entailed synchronous classroom teaching making use of Information and Communication Technology (ICT). Participants attend these sessions from the classrooms located in their respective cities/towns while IIM Calcutta Faculty members deliver the sessions from the studios in Kolkata.However, the hurdle that needed to be crossed was how to provide and maintain the online service platform. The Institute decided to stick to its core competency which is teaching, and outsourced the platform provision and management to specialist organizations in that area. These organizations provide the online platform, the studio, classrooms across various locations, and also the Learning Management System(LMS). The online synchronous platform provided by service providers allows two way communications between the Instructor and the participants. Both one-to-one and one-to-many communication channels are available and the Instructor can decide which one to use. The platform allows participants to raise hands in case they have queries, allows the instructor to conduct a quick poll or a quiz, or to request a student to elaborate, and to conduct the class using different computer applications, all in a real-time basis. The platform also allows foreign Faculty to take classes from their respective places

without the need to travel to India. In other words, the online platform and the associated infrastructure emulate the classroom environment, and bridge the gap created on account of distance. Attendance can also be adequately monitored. This mode of delivery gave IIM Calcutta an edge in executive education by reaching out to large pool of participants in any programme.

The offerings over this online platform have gradually grown over the years.So far 41 distinct programmes have been launched in the online mode, and the overall LDP alumni base has crossed 17000. Quite a few LDPs are continuing year after year, the oldest among them being in its 22nd batch now. Batch sizes in LDPs range from 50 to 350 participants, and on an average around 2000 participants attend LDPs every year. The longer duration of the programmes, combined with assignments and evaluation, enable participants to maximize their competiveness by further consolidating their learning in their chosen areas. LDPs are offered on general management as well as on specific functional and niche areas of management. The general management programmes cater to different target groups ranging from professionals with work experience of one year to more than fifteen years. The coverage of topics in these general management programmes differ in both depth and breadth depending on the profile of the batch. For example, for senior professionals the focus shifts to strategical and leadership skills. Functional programmes are offered in the areas of finance, human resource, leadership, supply chain, sales and marketing, strategy, business analytics, data sciences, and business and corporate laws, among others.

Sessions are held in the evenings or over the weekends at scheduled time slots. The satellite platform not only allows the convenience of time and location but also enables participants to engage in collaborative studies across various cities. The pedagogy is highly interactive, and consists of a judicious mix of lectures, case studies, quizzes, and assignments.

These online platforms have helped the Institute to reach out to organizations as well. To enable organizations achieve specific futuristic objectives, IIMCalcutta also offers customized long duration programmes for nominated participants of the organizations. The content and duration of the programme are decided after detailed deliberations with the client organization. Organizations are keen on these programmes either as a part of their retention policy, as a way to award top performers or simply to hone ups the skills of the employees.

Recently, IIM Calcutta has gone a step further based on feelers from the market, and launched programmes in the Direct-to-Device(D2D) mode wherein participants are not required to travel even to the centres of the service providers. Participants can attend the sessions from the convenience of their homes or offices using their laptops, tablets or even

smartphones. This has enabled IIM Calcutta to reach out even to locations where study centres of service providers are not available. Participants can log in from remote locations in India and also from abroad.

Participants are admitted based on selection criteria befitting the requirements of the professional needs and the rigour of the curriculum of the specific LDP. Certification is done following due examination and evaluation process. Both online and pen-paper examinations are held. Academic contents are designed and delivered following state-of-the-art pedagogy by faculty members of IIM Calcutta with occasional inputs from outside experts. Logistics, technology, and delivery infrastructure related issues are taken care of through contractual agreements with service providers who are competent to do the task. During the course of an LDP, participants get multiple opportunities to visit IIM Calcutta campus for attending selected sessions in classroom and for networking with peers and Professors.

IIM Calcutta takes pride in succeedingtoimpact the lives of so many working professionals by giving them the much needed cutting edge knowledge in this era of continuously evolving corporate world. Participants have been able to fulfill their dreams without having to give up their jobs or compromise family commitments as they complete the LDPs of their choice. It’s a great pleasure to see our LDP alumni making use of their acquired education in furthering their professional aspirations! Needless to mention, LDPs have also played a major role in boosting the revenue of the Institute, and helping the Faculty members become conversant with the issues and challenges facing the various industries and organizations.

Digital Initiatives
by
IIM Kashipur

Presentation at MHRD

July 9, 2017

Digital interventions

Online Research Seminar Series via “Go-to-Meeting” platform

Online Certification Courses

E-Books in PGP courses

Online Placement Interviews

Online Library Resources

Digital payment system, online IT Help Desk and Leave Management System

Online Research Seminar Series via "GotoMeeting" platform

For Executive Fellow Program Participants.

Presentation and Participation from Remote Locations

Upto 100 participants can attend

Cost: USD 588 per year

Proceedings can be recorded on the platform and easily accessible for circulation.

Online Research Seminar Series via "GotoMeeting" platform: Features

- Students can login via a 9 digit access code
- From any of the devices including Laptop, Desktop or even a Smart Phone
- All participants can chat, speak and even present their screen for discussion

Online Research Seminar Series via "GotoMeeting" platform: Benefits to the Students

- Students share their progress report from home
- Executive Fellow Programme Students have benefitted from the presentations by other students, particularly their seniors
- Helped in Collaborative research among students
- Participation by faculty from other IIMs and Industry Experts, has provided them valuable inputs
- Interaction of students with their faculty has helped them to clear many of their doubts

Online Certificate Courses

- IIM Kashipur is offering online long-term MDP /Certificate Courses in the platform provided by Telentedge on revenue sharing basis.
- Each program involves 60 hours of interaction.
- Delivered from IIM Kashipur campus.
- Participants can interact with each other and with the faculty
- Currently four such programs are running and two more are going to start soon.
- Attended by industry executives interested to add to knowledge and skills.
- Programs help IIM Kashipur to strengthen its industry linkages

Other Initiatives

- Placement Interviews with Video Conferencing
- Online Text Books
- Online Library Resources (Can be accessed remotely)
- Online Leave Management
- Online Payment System

Future Roadmap

- More intensive use of “GotoMeeting” for:
  - Industry Interactions
  - Online Training Programs
- Collaboration with other IIMs for Joint online elective courses

Adoption by other Institutes

IIM Kashipur can share its experience and learnings

We can also help in training for adoption of these tool

Collaborate on use of upgraded versions, so that multiple institutes can use together.

University of Delhi



UNIVERSITY OF DELHI

Digital Initiatives

University of Delhi- Profile

Category	Total Number
Faculties	16
Departments	82
Colleges	84
Centres	20
Programmes Offered	> 500
H-Index (2015-2016)	152
H-Index (2016-2017)	153
Publications (last four years)	7443
Student enrolment (2016-17)	666295 Regular- 229521, SOL- 413339, Non-Collegiate- 23435

Contents



- Digital Administrative Processes
- Digital Research Initiatives
- Digital Teaching Initiatives
- Digital Initiatives of the Delhi University Library System
- Digital Initiatives at the College and Department Level

Digital Administrative Processes

- Online Admission
- Online Fee Collection
- ~~Online Advanced Degrees/Duplicate~~ Degree/Attestation of Degree/Special Certificate
- Online Student Grievance Redressal System
- E- Procurement

Digital Research Initiatives

- DU e-Journals
- University Research Grants
- Research Profiles of Faculty Members
- Ph.D. Evaluation & Viva Voce

Digital Teaching Initiatives

- Use of virtual classroom software, web-casting and video-conferencing
- Online teaching and learning resources through MOOCs
  - 1810 e-lessons, 56 video lectures developed (ILLL initiative).
  - 363 lessons under the aegis of MHRD project NME-ICT as on 1.07.2015.
  - 52 Video Lectures, E-material for UG/PG programmes (SOL initiative).
- Subscription to e-journals and resources

Digital Initiatives of the DU Library System

- e-ShodhSindhu
- J-Gate@e-Shodh Sindhu
- Accessible resources for Visually Impaired
- Internet Access Facility
- Digital Collection of Ph.D. theses
- Electronic Databases
- Open Access e-resources
- Subject Portal
- Federated Search Tools

Digital Initiatives at the College and Department Level

Library

- Automated Libraries, SUGAMYA

Digital Services

- Online File Tracking, Information Internet Kiosks, Application Form

Record Keeping

- Digitization of Academic Records, Staff Records, Employee Dashboard

Teaching and Learning

- Technology Enabled Classrooms, Online Learning Platforms (Pan African Countries)

Social Media and Connectivity

- Wi-Fi- Enabled, Facebook Pages, Mobile App

Cashless Transactions

- Cashless campuses, Cashless Financial Transactions

Digital Initiatives in Last One Year

- Online Student's Grievance Redressal System
- Online System for House Allotment
- Online System for Hostel Accommodation
- Online System for Medical Bill Reimbursement
- Online Proforma for Faculty Appointments & Screening
- Online Confirmation of Services of Faculty
- Online Proforma for Teacher's Representation on College GBs



Thank You

University of Hyderabad

हैदराबाद विश्वविद्यालय University of Hyderabad









Presentation on

Digital Initiatives @Univ of Hyd

Prof. Appa Rao Podile, Vice Chancellor







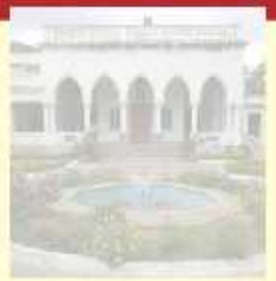




www.uohyd.ac.in

E-Governance

- Launched on 27th June 2017 the Student Life Cycle Management Module
- Followed by Employee Life Cycle Management, Assets Management, Finance Management etc.






Financial

After Demonetization:

- Financial transactions are done through RTGS
- Swiping Machine installed - no physical cash

Before Demonetization:

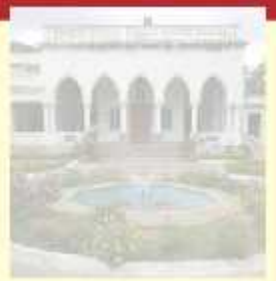
- Through Banks
- Online transactions
- Swipe machines






Academic - I

- Online Application
- Entrance Examinations
- Entrance Results Processing
- Admissions
- Semester Registration






Academic - II

- Student Information
- Semester Examinations
- Semester Results Reports
- Convocation
- Smart Degree
- Finger Print Capture






Ticketing System for Hostels

- Hostel boarders submit a ticket online
- Automatically forwarded to the concerned service department.
- The department concerned will address it at the earliest possible.
- Both boarders and representatives of the department concerned will be able to reply and update the status of the ticket.






Research Projects Grants

- First to implement e-governance in the accounting and management of research projects, during the year 2012-13.
- Procured and implemented custom-designed software solution known as SFACTS
- Using it for efficient management of research projects for more than five years






Other Initiatives

Online Recruitment process

University e-newsletter (UoH Herald - uohherald.commuoh.in)

Project Management system (PMS)

- The UGC Networking Resource Centre
- The academic management software was designed and implemented between 2015-16 at School of Chemistry.






Facebook	https://www.facebook.com/uohyd
Twitter	https://twitter.com/HydUniv
UoH Herald (newsletter)	https://uohherald.commuoh.in









Thank you









Developing Research Excellence & Fruitful Partnership with Industry for Mutual Benefit : A Case Study of Institute of Chemical Technology, Mumbai

Ganapati D. Yadav

Ph.D. (Tech.), D.Sc. (Hon. Causa), *FTWAS*, *FNA, FRSC, FIChemE (UK), F*

Vice Chancellor and R.T. Mody Distinguished Professor

J.C. Bose National Fellow (DST- Govt of India)

INSTITUTE OF CHEMICAL TECHNOLOGY

MUMBAI, INDIA

vc@ictmumbai.edu.in; gd.yadav@ictmumbai.edu.in

- *Also Adjunct Professor, RMIT U, Melbourne, Australia*
- *Also Adjunct Professor, U of Saskatchewan, Canada*



The Clarivate Analytics India Innovation Conference

ITC Windsor, Bangaluru, June 7, 2017

University's Role & Impact

- Universities of harbingers of creation of new knowledge
- Cutting edge knowledge – Incremental/Disruptive
- Dissemination of new knowledge to all stake holders; Unbelieving student particularly
- Innovation should guide University education
- Societal development at the core



Role of Universities/Institutes of Higher Learning



- Universities are supposedly set up to incentivize, that is, to reward creativity, good teaching, daring—intellectual daring running counter to convention.
- Corporations are basically set up to, legally, to return stockholders' put-in money, and the corporation is supposed to give back more money

http://www.technologyreview.com/news/428793/three-questions-for-george-whitesides/

University + Industry

University

- More new knowledge
- More returns on new knowledge
- Treasure house of ideas, crazy at times, but workable on a future date
- Contribution to national exchequer
- NEW IMAGE

WIN 2

Industry

- More returns on investment
- New businesses not imagined before
- Increase in profits and shareholders income
- Both national and international BUSINESS LEVERAGE
- NEW IMAGE

Susan Hockfield, Former President, MIT



- Universities are the engines economic growth.
  - Most successful period of fundraiser for MIT history; $3 billion.
  - Crossed disciplines, departments, and schools within MIT and fostered collaborations among the Boston region's academic medical centres and educational institutions.

IPR is Wealth: Innovators from the US Universities

Prof Robert Langer,

David H. Koch Institute Professor , MIT

- 24 companies
- More than 800+ patents
- 500 students
- 220 major awards
- 220+ major awards



Prof George Whitesides

Harvard University

- 150+ patents
- Highest h index
- More than 200 post-docs worked with him.

Genzyme, GelTex, Theravance, Surface Logix, Nano-Terra, and WMR Biomedical



How can industry benefit from academic collaborations?

- No restriction for creating new knowledge
- 24x7 thought process and talent pool
- Different perspective of the same problem
- Substantial return on investment
- Sharing of IPR and scale-up procedures
- Win-win situation
- New business opportunities
- Academics and students eager to impress

“Behind every innovation hub…

…lies a great university”



A University is just not a collection of buildings and affluence of facilities but of teachers, students, alumni and support staff who are active and vibrant participants in

creation and promotion of NEW KNOWLEDGE and INNOVATION.



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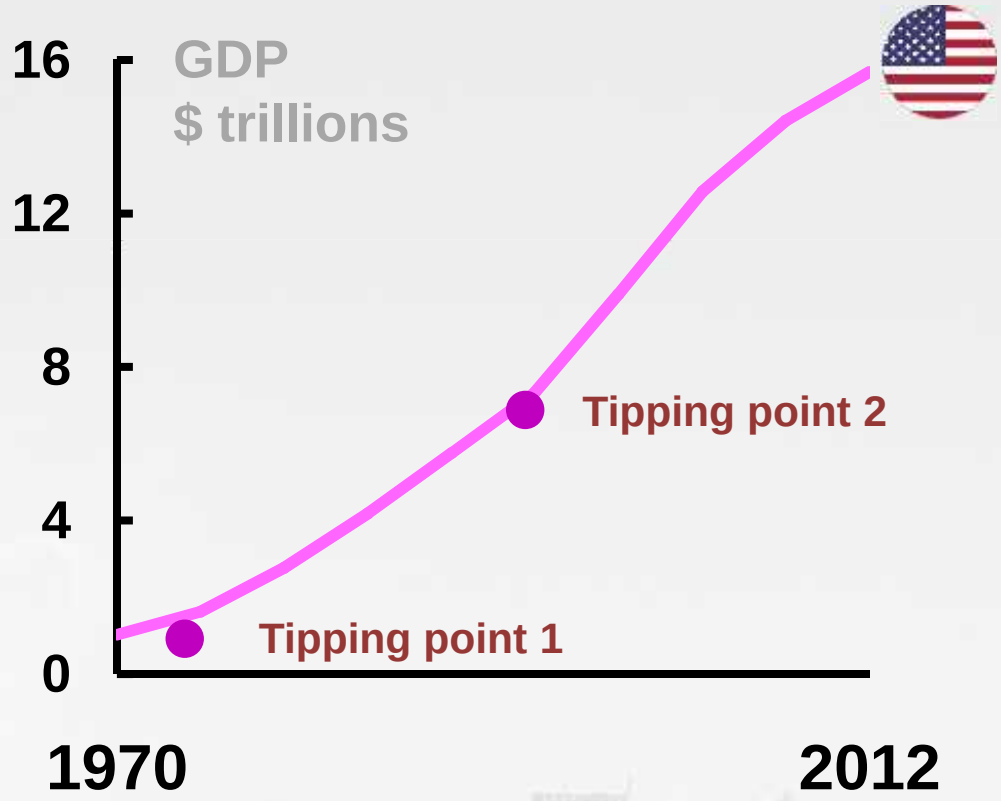
GDP of the United States

$15.68 trillion





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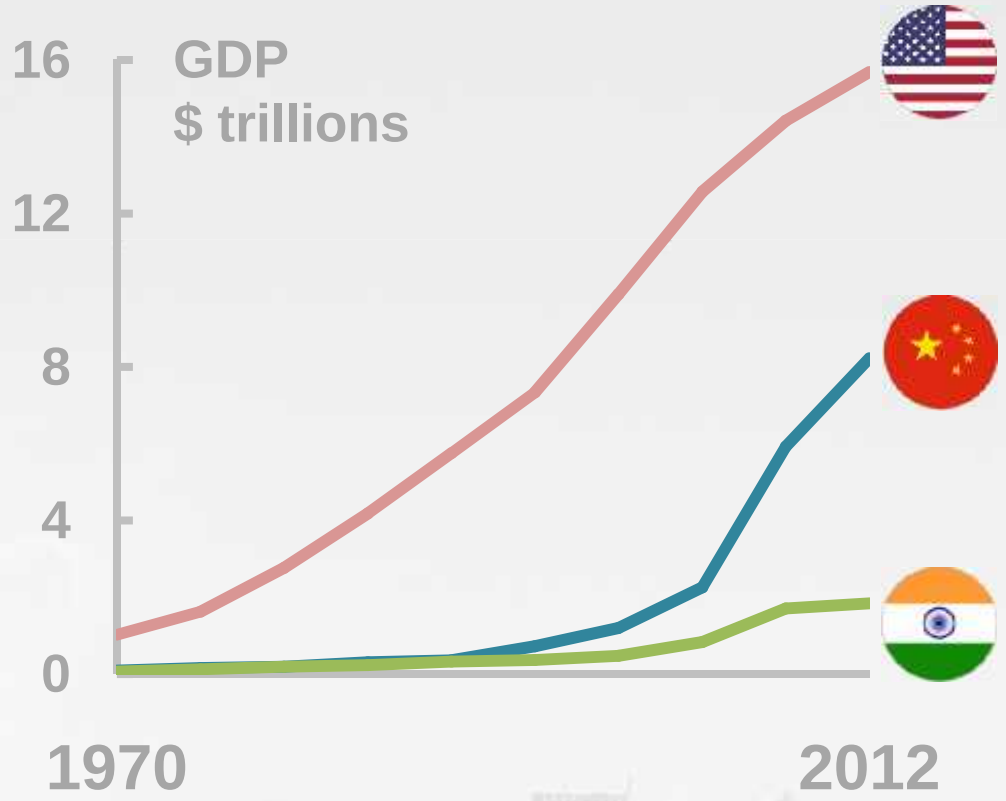
GDP of the United States

$15.68 trillion





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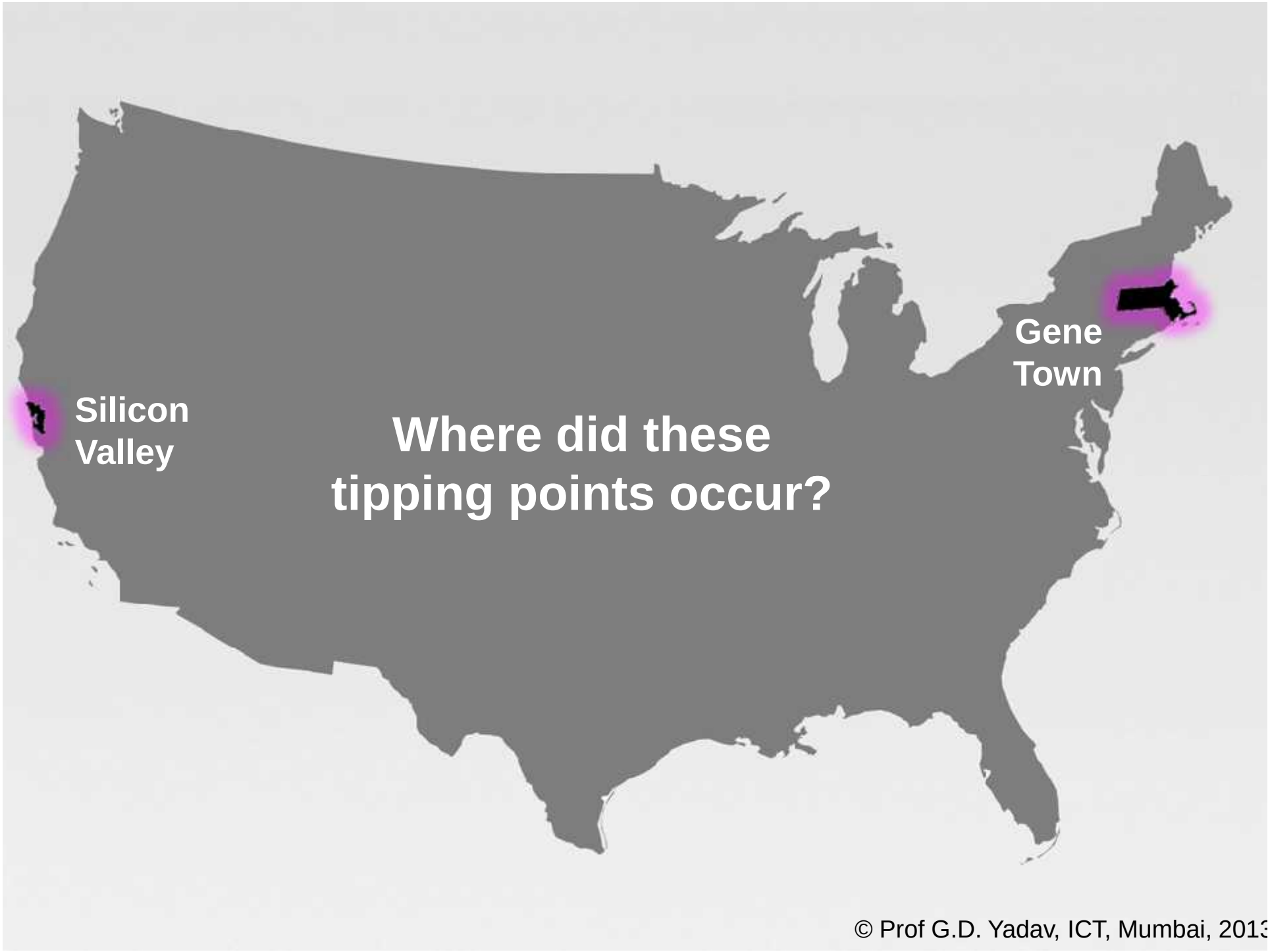

© Prof G.D. Yadav, ICT, Mumbai, 2013

2.7

2

10.98

GDP ($ trillion)

Stanford

MIT

Rest of US

33.1

Area (km^2)

0.68

Area is as large as the decimal point !

9.8×10^6



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National Institutional Ranking Framework for Universities in India, MHRD, 4th Apr 2016

- 1. Indian Institute of Science, Bangalore
- 2. Institute of Chemical Technology, Mumbai
- 3. JNU, Delhi
- 4. U of Hyderabad
- 5. BHU, Varanasi

ICT Mumbai is the only State Owned and Funded University to appear in National Ranking competing against the branded



Maximizing Research Impact

ICT Mumbai

Based on the category of 'Normalized Citation Impact', the Institute of ChemicalTechnology, Mumbai is number 1 among all academic institutes including IITs, Central Universities and IISc. These data are only for the period of last 8 years for ICT whereas for others they are for 30 years. The publications coming out of ICT for 30 years are far more and will further improve its statistics. However, still it is No. 1.

THOMSON REUTERS



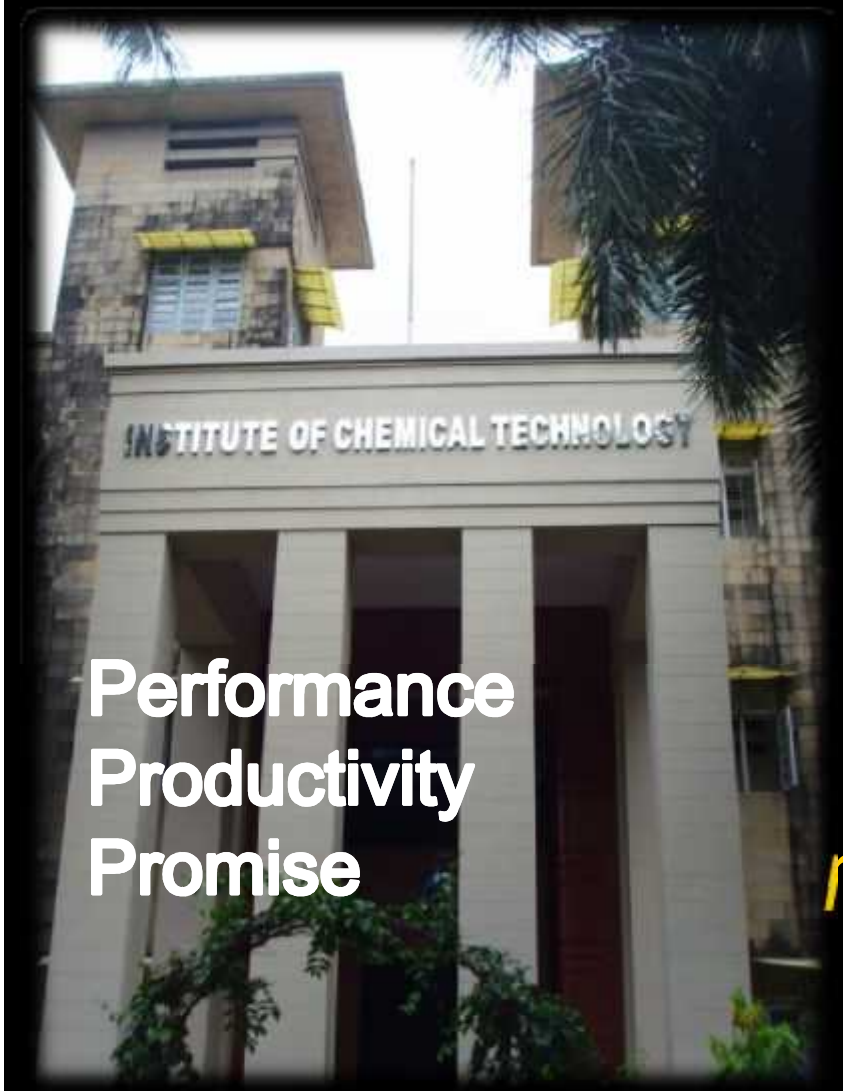
Comparison with other leading institutions
ICT at 1st Position

Name	Rank	▼ Category Normalized Citation Impact	International Collaborations	Impact Relative to World	Times Cited
Institute of Chemical Technology, Mumbai	1	0.98	426	0.961	38,983
Indian Institute of Science (IISC) - Banglore	2	0.89	7,434	1.081	517,009
Indian Institute of Technology (IIT) - Bombay	3	0.87	4,305	0.804	200,485
University of Hyderabad	4	0.85	1,906	1.111	130,361
Indian Institute of Technology (IIT) - Delhi	5	0.82	3,495	0.809	207,891
Banaras Hindu University	6	0.68	3,217	0.796	215,270
Jawaharlal Nehru University	7	0.68	1,317	0.722	68,686

THOMSON REUTERS

Basis: No. of documents on Web of Science





How Institute of Chemical Technology has performed as a role model for others in India?

Take a 360 degree virtual tour

www.ictmumbai.edu.in

Innovation leaders at top

A University Department becoming a separate university is unparalleled in Annals of India





आ नो भद्राः क्रतवो यन्तु विश्वतः

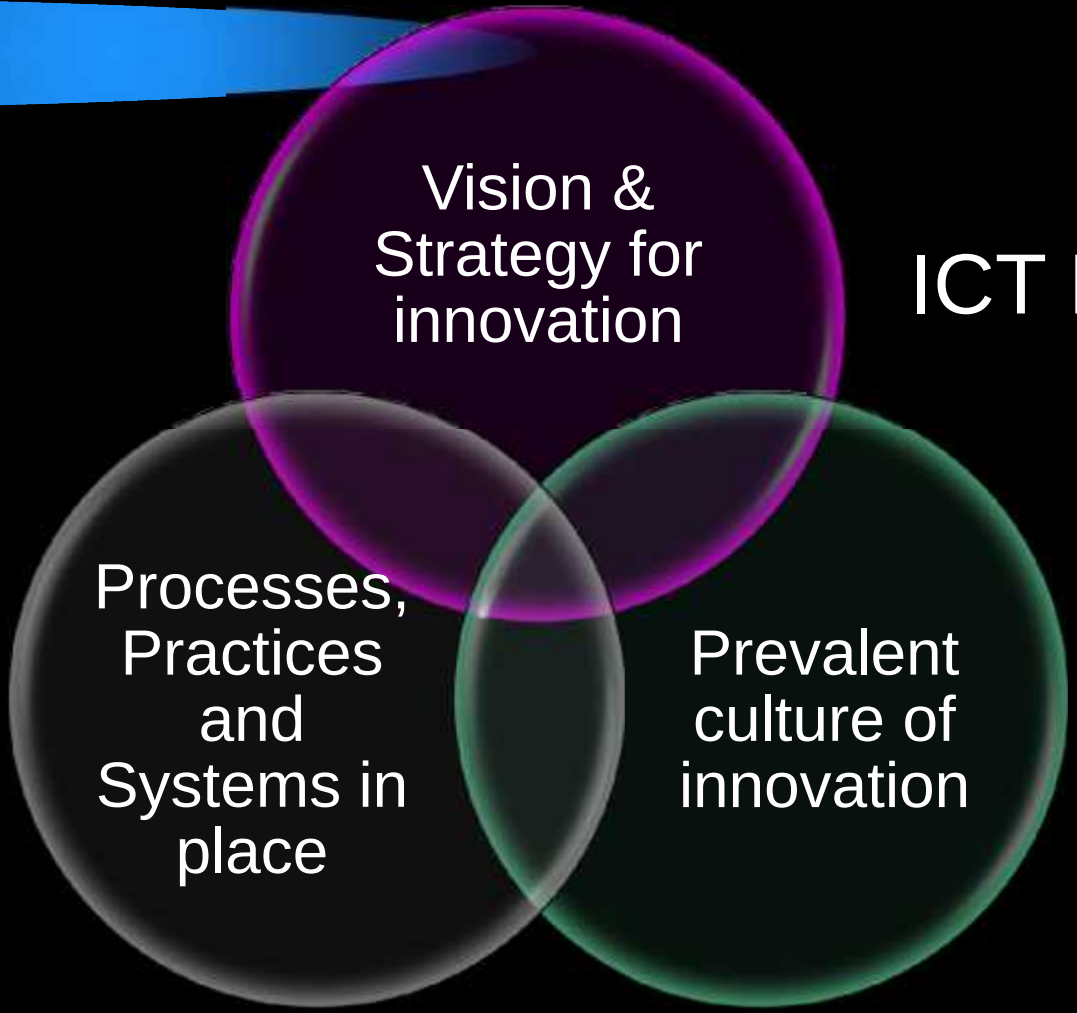
et noble thoughts (new knowledge) come to us from all directions

दशदिशातून आम्हास (नव्या ज्ञानाचे) सुविचार प्राप्त होवोत.

Cross- & Multi-functional teams mapping innovation road

Empowered employees & colleagues driving innovation

Ideas thrive on freedom to practise



ICT Model

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How was excellence achieved by ICT?

- Vision of founders: Desire of industry
- Creation of endowments since 1933
- Research as integral part since beginning
- National character : faculty, students
- Dedicated selfless service by faculty
- Industry participation and genesis of new industries after WWII by ICT alumni
- Philanthropic donations by all stake holders
- Spirit of entrepreneurship
- Student entrepreneurship
- Compassion for support staff and their families

Institute of Chemical Technology
Mumbai, India

Unparalleled track record and history of 84 years since October 1, 1933

3 Padma Vibhushans, 8 Padma Bhushans, 8 Padma Shris, 2 FRS engineers

500 plus entrepreneurs, contributions to national wealth in billions of dollars

www.ictmumbai.edu.in

Fantastic Journey from University Department to Elite Status

- Estd. : October 1, 1933 by Bombay University as UDCT (University Dept of Chem Tech)
- Partial autonomy 1985
- Autonomy 1995 –UGC
- Full autonomy under TEQIP in 2004
- Deemed University: September 12, 2012
- Elite Status and Centre of Excellence- April 20, 2012 (State Assembly)

Special Recognition like IITs, IISc, IISERs

- Elite Status and Centre of Excellence on Par with IITs, IISc, IISERs by Govt. of Maharashtra
- Assembly Decision on 20th April 2012; Statutes
- Again Unparalleled

TEQIP – World Bank Programme

- Declared as Number 1 institute in India under the word bank supported Phase I – TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAM
- Phase II – 2012 : Lead institute
- Centre of Excellence in Process Intensification for Chemical Industries
- Phase III- Mentor of BIT, Mensa

NOT JUST CHEMICAL TECHNOLOGY

- Chemical Sciences, Engineering and Technology
- Biological Sciences and Engineering
- Materials Sciences and Engineering
- Energy Science and Engineering

Green, Nano, Bio



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ICT : Culture, Creativity and Connectivity

- No. 1 in India, 4 globally in publications in Ch E
- 9 UG, 16 PG, 29 Ph D programs, 1 PGDCTM, 1CCCSRM
- 650 Ph D Students
- 450 0Masters
- 1100 UG students
- 350 UG Scholarship
- 100+ UG Summer Researcher Fellows
- Rs 10K, 100K per student
- 10.27 Ph D per faculty
- Highest citation per faculty
- Annual citations per year more than 10,000
- 4 Fellows of INSA, 3 Fellows of TWAS, 4 JC Bose Fellows
- 22 Endowment Chairs; 15 UGCFR, 8 INSPIRE, 2 Ramanujam, 2 Ramalingaswami fellows
- 49 Endowment Visiting Fellowships
- 11 endowments for library
- India's five Ph Ds in E & T from ICT in 1941-42
- 468 papers: 2016
- 348 Patents in last 10 years
- 104 Industrial projects in 2015-16
- Publications/faculty highest
- > 500 first generation entrepreneurs
- 2 Ch E alumni FRS, London
- 2 companies under section 25 of Companies Act
- CSR, 80G, 35(I) (II) 3 C, 3E



Govt of Maharashtra's New Initiative

- 203 Acres land near Jalna for Marathwada Campus
- 100 Acres near New Mumbai Airport
- New innovative programmes with co-op degree of 5 years; skill development
- Odisha Govt initiative in formative stage



Generation of IPR in ICT

- Research as integral part of education since 1934
- Cross and multi-disciplinary research in all departments
  - Immense freedom to practise what they preach
  - Number of Research projects; Sharing of IPR with industry
  - Technology Transfer
  - Establishment of non-profit companies under Section 8 of Companies Act
- Intertwining of Chemical Engineering, Chemistry, Biology, Materials, Energy
- Faculty as consultants to industry : 1/3 share to institute without any use of facilities
- 80% of revenue to patent holders
- Patent, Publish and Prosper



Students as Entrepreneurs

- Group of 6 UG students to study proven research findings from ICT
- Finishing School
- Practice School
- Market surveys
- Startup India Missions
- Standup India Mission



Sharing Intellectual Property Rights

- Who should own it and transfer to industry?
- IPR and Technology Cells
- A delicate issue in collaboration
- Academic collaboration much easier
- Industries - much difficult
- Multinationals - most difficult
- Areas of mutual interest
- Models for sharing revenue

Departments

- 1. Chemical Engineering (1933)
- 2. Dyestuff Technology (1944)
- 3. Fibres and Textiles Processing Technology (1933)
- 4. Food Engineering and Technology (1943)
- 5. Oils, Oleochemicals and Surfactants Technology (1943)
- 6. Pharmaceutical Sciences & Technology (1943)
- 7. Polymer and Surface Engineering (1946)
- 8. Chemistry (1952)
- 9. Physics (1966)
- 10. Mathematics (1966)
- 11. General Engineering (1952)

8 supported under SAP of UGC and FIST of DST



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Centres of Excellence and Heads)

- UGC CAS Chemical Engineering
- UGC Network Resources Centre in Chemical Eng
- DAE-ICT Centre in Chemical Eng Edu & Res
- DBT-ICT Centre for Energy Biosciences
- CAS Textiles, Fibres, Dyes and Polymers
- CAS in Pharmaceutical S and T
- CAS in Food Engineering and Technology
- Green Technology (with U of Mumbai)





Expansion Plans with Help of Industry, Alumni and Central Govt.: 26 Centres of Excellence

- Entrepreneurship resource centre
- Interactive student services portal
- Centre for Undergraduate Research In Engineering (CURIE)
- Centre for Process Intensification and Innovation
- Centre for Product Engineering
- Centre for Drug Discovery Engineering
- Centre for Infectious Disease Control and Prevention
- Technology Incubation Centre
- Technology Transfer Cell

We have been thinking globally and acting locally:

Courses, Research & Innovation and Technology Development



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Nurturing Excellence – The Four Pillars Working in Tandem

Faculty

Students

Support Staff

Alumni

Creation of world class facilities for innovation and bringing like minded leaders together



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ICT's Research Goals

- Developing greener chemical processing platforms producing a much wider range of products; green technology; product engineering.
- Developing technologies for generating, storing and transporting unlimited and inexpensive energy sources; energy engineering
- Developing therapy strategies for incurable diseases; pharmaceutical and healthcare.
- Designing better materials whose properties can be predicted, tailored and tuned; materials engineering; nanotechnology

Cultivations of Areas of Excellence

1. Multiphase reactions and design of reactors, CFD
2. Novel separation processes: Membrane Processes
3. Process Intensification
4. Development of novel catalytic materials
5. Green Chemistry and Technology
6. Biotechnology, Biofuels, Bioenergy
7. Food Technology & Engineering
8. Pharmaceuticals and Drugs, APIs, Drug Delivery
9. Polymers, Plastic Processing
10. Dyestuffs and Intermediates
11. Herbal Technology
12. Green Textile Processing

Over 50 Implemented New/ Improved Technologies during last 3 decades

ICT Groups working on Biomass Conversion and Biorefinery

- Prof Arvind Lali – Biotechnology- Bioethanol, Biobutanol, Biohydrogen
- Prof G.D. Yadav – Chemical Catalysis

PM Hon'ble Shri Narendra Modi and Mr Tony Abbot, PM, Australia at Queensland University Australia before the G20 Summit



This facility was dedicated to the nation on 22nd April 2016 at India Glycols Plant in Kashipur

Prof. Arvind Lali, Head, DBT-ICT Centre and Prof of Chemical Engineering Making presentation on ICT Bioethanol Technology; 14th November, 2014



- World's first technology; 24 h time for ethanol production
- Four 400 TPD plant with BPCL, HPCL and IOCL
- 700 Cr each; L &T HE as partner
- 10, 000 TPD in future

India's first 2 G bioethanol production demo facility: 10 TPD

India Glycols Ltd Kashipur

22nd April 2016

DBT-ICT 2G-Ethanol Technology-

- BPCL and HPCL for technology transfer and building commercial scale biomass to ethanol plants
- The plants will be operational before end of 2018.
- Larsen & Toubro Hydrocarbon Engineering Ltd. has signed on as the Engineering Partner for commercialization of the project with a signing fee of about INR 500 Lakhs.
- **Revenue generated:** INR 500 Lakhs.

Enzymatic saccharification process for Cellulose

- This technology with much wider application to a number of biochemicals and chemicals is currently operational at the India Glycols Ltd. 10 ton/day lignocellulosic ethanol demonstration plant at Kashipur.

Biorefinery of Agricultural wastes-

- converting agro-wastes into sugars that can be further fermented to higher value products. This is being translated into pilot plant with an output of 100kg/day under the umbrella of Privi Biotech Ltd. with the help of DBT-BIPP grant. The products in the pipeline include ferulic acid, vanillin, xylitol, gluconic acid, butanol, etc.

Bio-CNG Technology-

- The Centre has developed a novel technology for conversion of MSW and wet algae into a high Cell-density bio-oil that can be upgraded to fuel or converted into biogas in high yields.

Algal Technology for Sewage water treatment

- Algae based sewage treatment technology that is both efficient and rapid and results in near drinking quality water. This technology along with liquefaction and biogas technology mentioned in (4) above are being scaled up in collaboration with Bharat Petroleum Corp. Ltd.

Green Fat splitting Technology-

- Enzymatic fat splitting technology that is a green & zero-discharge process. This is being translated into pilot plant with an output of 1.0 ton/day with Privi Biotech Ltd. with the help of DST-TSD grant. The products in the pipeline include fatty acids, MAGs, DAGs, designer lipids, interesterified oils and fatty acid esters.

Glycerol purification and refining

- Technology for purification and refining of glycerol from biodiesel production fat/oil splitting etc. The technology has been licensed to InNow LLC at 350,000USD, USA and a 50 kg/day pilot plant has been set up at Turbhe for further deployment and demonstration.
- **Revenue generated:** 350,000USD

Soya Biorefinery

- A novel competitive continuous multi-stage fractionation technology for production of protein isolate from non toasted defatted soybean flakes.
- Near complete recovery and superior quality of highly bioactive proteins and non-protein components (cellulose and isoflavones) are the salient features of the process. This is currently being commissioned and technology has been proven on a 100kg/day pilot plant facility at Kanoria chemicals, Vishakhaptanam. Discussions are in progress to commercialize the technology and build up plants for 1000 tons/day soybean processing.
- Revenue generated: INR 50 Lakhs

Detoxification of oil-seeds

- The Centre has developed a technology for detoxification and improvement of oil-seed meals/cakes for feed applications has been licensed to Godrej Agrovet Ltd., Mumbai for INR 100 Lakhs.
- **Revenue generated:** INR 100 lakhs + royalty for 10 years.

Dr Harsh Vardhan, Views and Tweet 23rd June 2015



- I have visited IIT-Kharagpur and seen the campus of 2100 acres.

- **Dr. Harsh Vardhan** @drharshvardhan Jun 23
- Told scientists in Mumbai's prestigious ICT "Lets spread knowledge of waste to biofuels proactively.Sure&Cheapest option for Swacch Bharat!"

- The 16 acres land of ICT has better performance and remarkable achievements.

Dr B.P. Godrej Distinguished Professor of Green Chemistry and Sustainability Engineering



Signed a MOU with Godrej Group to establish this endowed Chair

At Rs 40.00 lakhs per annum

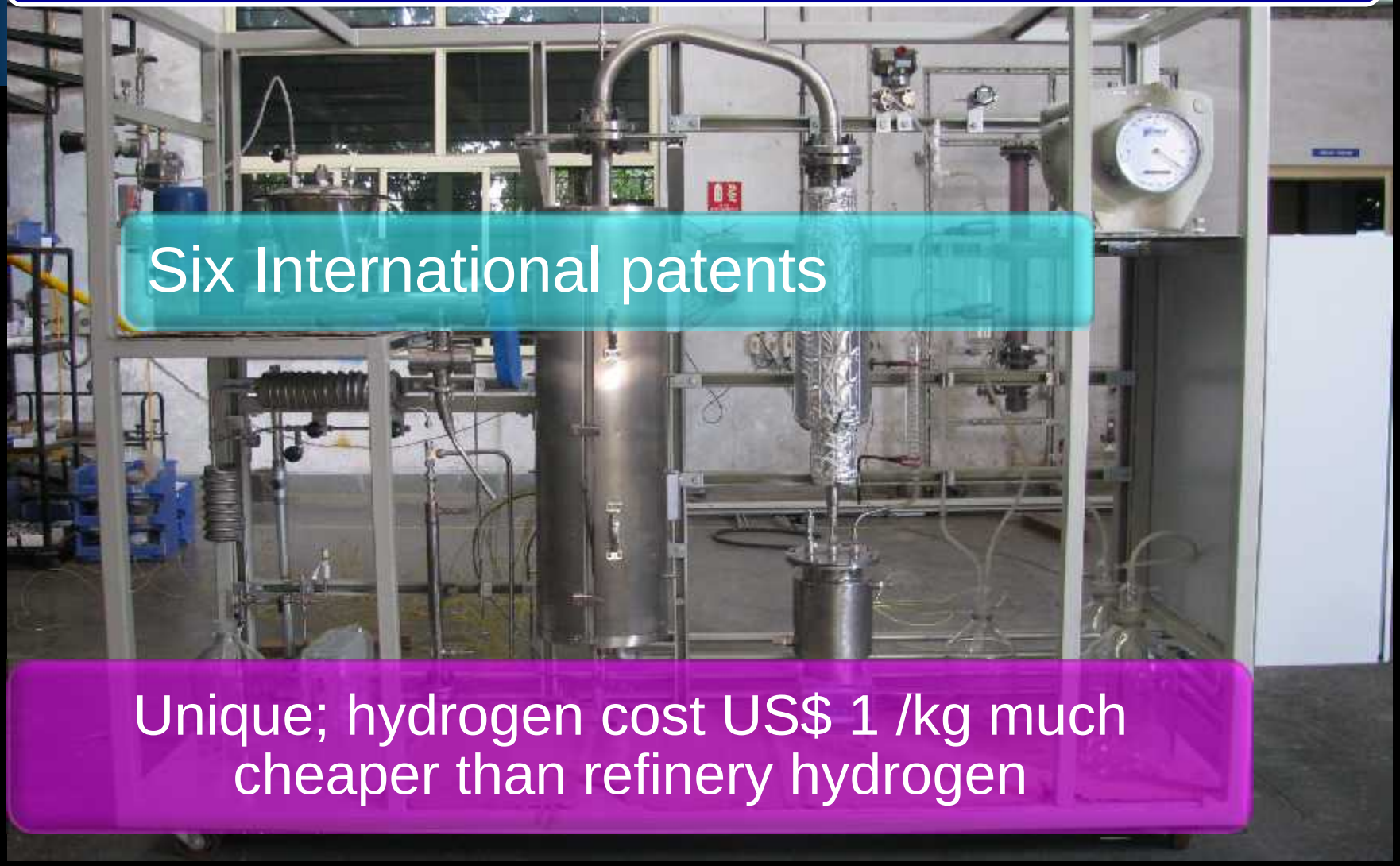
on the occasion of Dr B.P. Godrej's Birth Centenary.

- Dr M. Lakshmikantam,

Former Director CSIR-IICT Hyderabad to occupy it.

Hydrogen Production Technology

Collaboration with ONGC Energy Centre



Six International patents

Unique; hydrogen cost US$ 1 /kg much cheaper than refinery hydrogen

Renewable Energy: ICT-OET Hydrogen technology

- From concept to commercialisation:
- Phase I (2007-2011) , II and III
- Phase II: started in 2012- Lab scale to pilot scale experiments For hydrogen production with ONGC Energy Centre : Rs 10.00 Cr

- Prof G.D. Yadav

Energy : Waste Heat Recovery, Solar Powered Refrigeration

- Heat based refrigeration/ absorption: Heat at 75 C
- Air conditioning at about 15-25C can be serviced by heat at 75C.
- Ammonia absorption based system to convert heat at 80-100C to mechanical power at an efficiency of about 12%.
- Heavy Water Board, BP Energy,, NT
- 10TR (pilot sized) Pilot Plant
- Heat based milk chilling unit will be installed at Gokul Dairy, Kolhapur
- NTPC

Prof S.S. Bhagwat

Conversion of Liability into Assets

- Rubber chemicals hydrogen sulfide: 30 TPD plant for NaHS
- Benzyl esters by green process
- Benzyl alcohol process (30 TPD) and use of dibenzyl ether for value addition
- NOCIL- Rubber chemicals (G.D. Yadav)
- Indian Oil Chemical Ltd (G.D. Yadav)
- Gwalior Chemicals (G.D. Yadav)

Rankala lake Kolhapur Cleaning by ICT's Hydrodynamic Cavitation Technology



Supported by Rs 25 lakh donation by
Aarti Group of Industries of ICT Alumni



कोल्हापूर : रंकाळा खाणीत प्रायोगिक तत्त्वावर राबविण्यात येत असलेला जल शुद्धीकरण उपक्रम.

- Inauguration on 14th June 2015 by Hon'ble Shri Chandrakant Patil.
- July 6, 2015 : Success Story news in Sakal, Kolhapur

Rankala Lake Purification



Hon.’ble Shri Vinod Tawde

26 th June 2016





Socially Relevant Projects

Rankala Lake Purification

- Highly polluted lake
- Hydrodynamic cavitation technique to disinfect water; >85% COD reduction, 100% BOD reduction

Aarti Group of Companies

- Corporate Social Responsibility
- Rs 25 lakhs
- Inaugurated on 14th June 2015 by Hon'ble Shri Chandrakantdada Patil, Gaurdian Minister of Kolhapur

Clean and Green Energy Engineering

- 32 Projects in operation with Department of Atomic Energy (DAE) – BARC and IGCAR (Rs 750 million) ; Chemical Engineering and Chemistry Projects)
- (Total 52 projects planned)
- Largest input in a single institute
- Department of Biotechnology (> Rs 350 million)

Collaborations with International Institutes/Universities

- Saskatechewan U, Canada
- Queensland U, Australia
- IIT-Chicago,
- University of Illinois, Urbana-Champaign
- GEMS France
- MIT, USA on NSF India Initiative
- U of British Columbia,
- RMIT U Australia
- U of Birmingham, UK (since 1999)
- U of Groningham, The Netherlands (1997-2000)
- U of Cape Town, South Africa (1996-2002)
- Purdue University (since 2000)
- University of Kansas
- University of Abertay Dundee, Scotland, UK
- Hokkaido University, Sapporo, Japan
- INPT, Toulouse, France
- TUHH, Hamburg
- University of West Hungary, Hungary
- University of Turine, Italy
- Indiana University, USA
- US Army Medical Research Institute of Infectious Diseases, Maryland, USA
- AIST, Sendai, Japan
- University of Oulu, Finland
- University of Cantabria, Spain

Collaboration with National Institutes

- IIT-Mumbai (institutional)
- National Chemical Laboratory (Institutional)
- U of Mumbai (instituttional)
- IIT-Madras (individual)
- IIT-Guwahati (individual)
- Bombay Veterinary College, Mumbai
- Dr M G Rajan & Associates Radiation Medicine Centre, Mumbai
- Institute of Reproductive Research, Mumbai.

Solving National Problems in Energy

- Maximum number of collaborative projects with DAE
- DAE acknowledges ICT's contribution to solving real problems, which cover
- (a) Chemical Engineering,
- (b) Process Technology,
- (c) Bio-technology, and
- (d) Materials Technology
- (e) Green Technology.

- Provision for an intake of 20 Ph.D. fellowships per year is an important feature of this Centre. There is a frequent exchange of scientists and students, leading to mutual benefit.

Collaborations with Multiple National Institutes

- New Millennium Indian Technological Leadership Initiative (NMTLI) programme of CSIR
- Project 1: ICT, NCL, IICT-Hyderabad, TERI, University of Delhi, Anil Starch, Viniti Organics Ltd
- Project 2: ICT, NCL, IICT-Hyderabad, IIT-Madras, Reliance Industries Ltd, Tata Chemicals
- ICT, IMT, Chandigarh, IIT-Kanpur
- ICT, BARC, IGCAR

Collaboration with Major National Industries

#	Industry	Nature of Collaboration
1.	Reliance Industries Ltd	Refinery processes, fibres, pigments
2.	Marico Industries Ltd	Food products
3.	Hindustan Petroleum Ltd	Biofuels
4.	Indian Oil Corporation Ltd	Biofuels
5.	Oil & Natural Gas Corp.(ONGC)	Hydrogen production
6.	Tata Chemicals Ltd	Biofuels, Bulk Chemicals
7.	Sun Pharmaceutical Industries	Drugs
8.	Wockhardt Ltd	Drugs
9.	Pfizer Ltd	Drugs
10.	Healers Neutraceuticals India	Neutraceuticals
11.	India Glycol Ltd	Biofuels

Collaborations with International Industries

- Dow Chemicals, USA
- Huntsman, USA
- Biorad
- Pepsi, USA
- Mitsubishi, Japan
- Phoenix Pharmaceuticals USA (3 Projects)
- Neurosci Inc. USA (2 projects)

PROF. PADMA DEVARAJAN'S RESEARCH GROUP

PATENTS LICENSED

IP 18854 – Licensed to Alchem Phytoceuticals, Delhi.

The patent has been licensed and a commercial product of a bitter drug silymarin recently launched in the Indian market. Photograph of product below:



IP 206334 – Licensed to Alchem Phytoceuticals, Delhi.

This is based on Transmucosal Drug delivery System with enhanced Bioadhesion The patent has been licensed and a prototype tansmucosal dds for sublingual delivery of an analgesic is ready and under consideration for scale up

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Transdermal Drug Delivery System

Product is developed at Institute of Chemical Technology, Mumbai
Principal Investigator: Prof P. R. Vavia
Industrial Partner: Rusan Pharma

Fenstud Transdermal Advance Matrix System

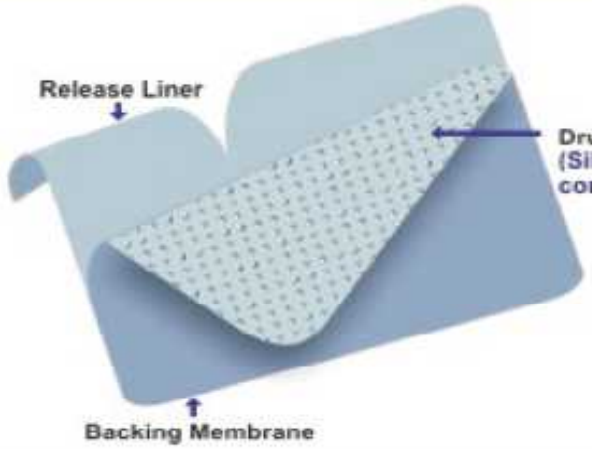


Fig.: 1



Fig.: 2

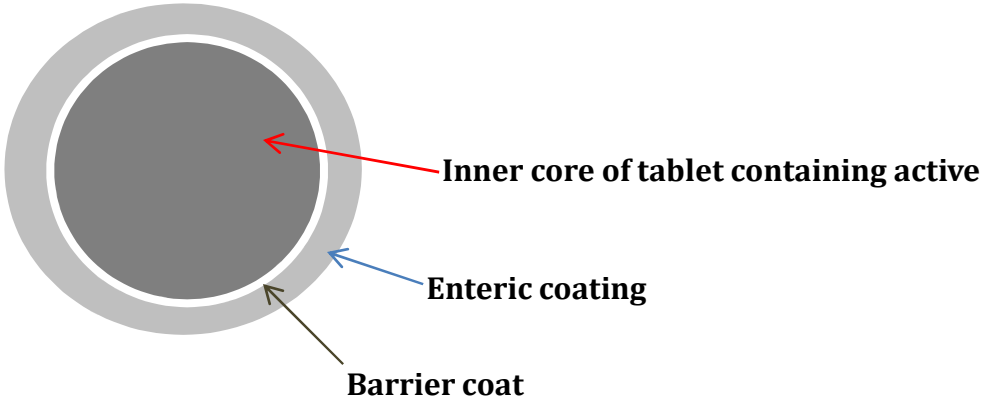


Rusan

Enteric Coated Formulation

Product is developed at Institute of Chemical Technology, Mumbai
Principal Investigator: Prof P. R. Vavia
Industrial Partner: Kusum Healthcare

Enteric Film coated tablets of Serratiopeptidase







Products are developed at Institute of Chemical Technology, Mumbai
Principal Investigator: Prof P. R. Vavia

Technologies Commercialized			
No	Description	Industry partner	Faculty
1	Atorvastatin Tablets 20mg (ATSTAT)	Kusum Healthcare Ltd	Prof. P. R. Vavia
2	S(-)Amlodipine Tablet 2.5 mg & 5mg (SAMLOPIN)		
3	Carbamazepine SR Tablet 400mg (MEZACAR 400)		
4	Serratiopeptidase Enteric Coated Tablet 10mg (SERRATA)		
5	Aspirin Enteric Coated Tablet 75mg (LOSPIRIN)		
6	Carbamazepine IR Tablet 200mg (MEZACAR 200)		
7	Pantoprazole Enteric Coated Tablet 40mg (ZOLAPAN)		
8	Oxcarbazepine Tablet 300 mg (OXAPINE)		
9	Itraconazole Tablets 100mg (ESZOLE)		
10	Citicholine Tablets 500mg (NERODAR)		
11	S(-)Amlodipine Atorvastatin Tablets (AMLOSTAT)		
12	Clopidogrel Tablets (CLOPIGREL)		
13	Metformine Acarbose Tablet (GLUCOBAY M 25 & GLUCOBAY M 50)	Bayer Pvt Ltd	
14	Rofecoxib Tablets (ROFF-BCD-50)	Unichem Pvt Ltd	
15	Fentanyl Transdermal Patch (FENSTUD)	Rusan Pvt Ltd	

Intellectual Property Outcome from Industrial Projects

Patents jointly filed with companies			
No	Patent No/Appl. No, Title/Description	Industry partner	Faculty
1	**WO2006123354** ORAL PHARMACEUTICAL COMPOSITION	M/S Medicap Pvt. Ltd. (Thailand)	Prof. P. R. Vavia
2	**WO2012110886** CONTROLLED-RELEASE FORMULATION COMPRISING HCG	Sanzyme Limited	



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Industrial Scale Dehydration of Agricultural and Marine Food Products : Value Addition to Farm Products

Technologies Developed by
Advanced Drying Laboratory of ICT
(Patented, Commercialized and Transferred)

Professor B. N. Thorat,
Department of Chemical Engineering,
Institute of Chemical Technology, formerly (UDCT)
Matunga (E), Mumbai 400 019



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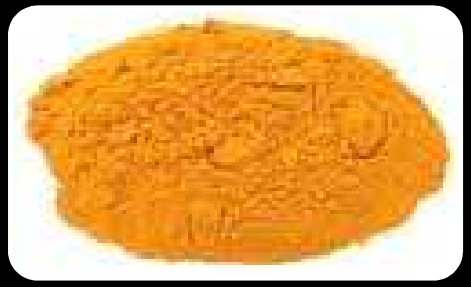
Modified Solar Drying Technology for Turmeric





Solar Dryer Method took around 5 to 6 Hours for Turmeric Dehydration

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2. Nutritious Food Products

Nutritious Vegetable Soup Dry Mixes – Just Sip Brand

- Implemented at (i) Baramati Food Processing

(ii) Trilok Food India, Satara

- Capacity – 2 tons product per months
- Project funded by : Rajeev Gandhi S & T, Commission, Govt of Maharshtra from 2007- 2011



Trade Marks Registered







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Why Just Sip?

- Are you bored of eating vegetables?
- Are you getting the required nutritional factors with your routine diet?
- In this fast life do you / your mother or wife have enough time to cook daily requirement of vegetables?

Just sip – One solution to get Many vegetables



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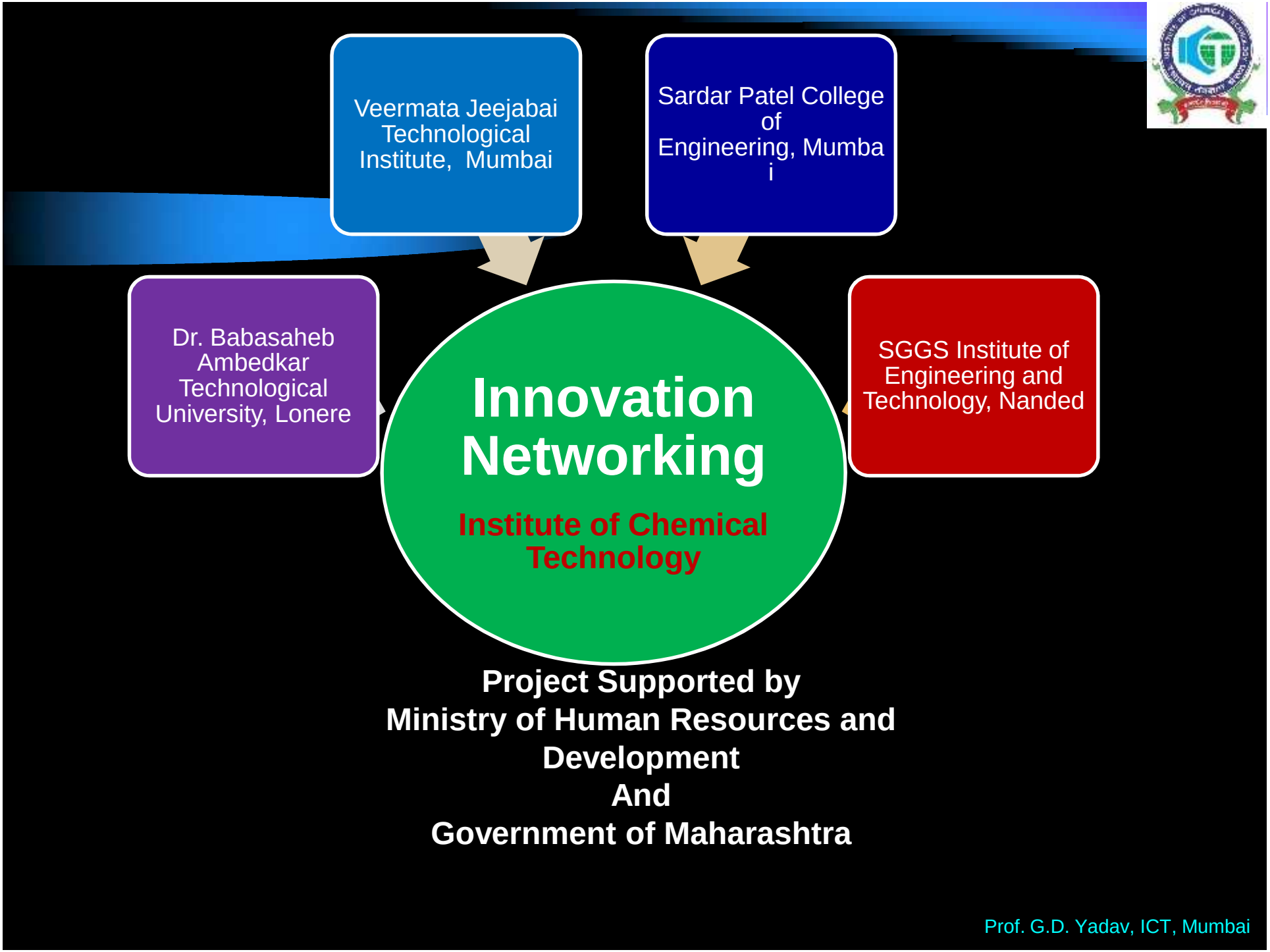
Various Formulations

- Mix Veg
- Tomato
- Dudhi
- Palak
- Diabetic –

No added Sugar

Low Sodium

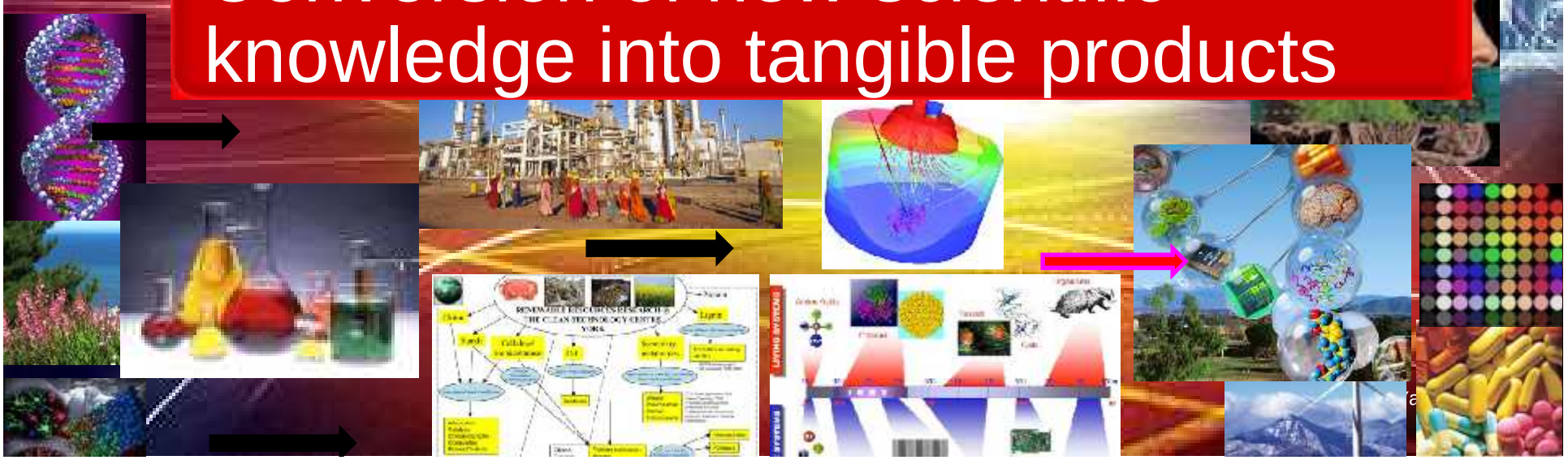




Project Supported by
Ministry of Human Resources and Development
And
Government of Maharashtra

Unless Indian academia create their own IPR with participation of industry and commercialize it globally, there is no future for them in this competitive world, the MAKE IN INDIA MISSION notwithstanding. It will be doubly rewarding.

Conversion of new scientific knowledge into tangible products



Periyar Nagar, Vallam Thanjavur - 613 403, Tamil Nadu, India
Phone: +91 - 4362 - 264600 Fax: +91- 4362 - 264660
Email: registrar@pmu.edu Web: www. pmu.edu

PERIYAR MANIAMMAI UNIVERSITY
(Under Sec. 3 of UGC Act, 1956) • NAAC Accredited
think • innovate • transform

E Content Status of Periyar Maniammai Institute of Science and Technology

Using ICT in teaching learning processing is essential in this digital era. To cope up with the demand, Periyar Maniammai University has taken initiatives in preparing e-contents to suit the need of the students hail from rural background. Faculty members have developed e-contents in the form of Text, Power Point, Audio and video based lectures for 185 subjects. We have established Hi-Tech audio-visual seminar halls to provide virtual/e-learning to our students. All the e-contents are managed with the support of Modular Object Oriented Dynamic Learning Environment (MOODLE). With the material available in the intranet, faculties and students are able to access it 24 × 7 within the campus.

Apart from, e-contents we are also using NMEICT and NPTEL e-contents which were developed by all IITs and IISc for teaching the contents. These lectures are being accessed by faculties and students of our university.

E-Content Report

First Year Common Subjects

1. **Applied Physics**
2. **Applied Chemistry**
3. **Mathematics I**
4. **Mathematics II**
5. **Technical English – I**

Department	Semester	Subject Code / Subject Name	Total Subjects
School of Computing Sciences and Engineering	Common Papers	1. Advanced Java Programming 2. C# and .Net 3. Computer Architecture 4. Computer Networks 5. Computer Programming 6. Data Mining and Data Ware Housing 7. Data Structures 8. Data Base Management System 9. Design and Analysis of Algorithm 10. Digital Signal Processing 11. Fundamentals of Digital Computer 12. Graphics and Multimedia 13. Mobile Communication/ Mobile Computing 14. Object Oriented Analysis and Design 15. Operating System 16. Programming in C++ 17. Software Engineering 18. Software Project Management 19. Theory of Computation	**19**
	I Semester	1. XCS 105 Engineering Graphics 2. XCS 106 Basic Engineering	**2**

Computer Science and Engineering	III Semester	1. XCS 303 Microprocessor and Micro controller 2. XCS 304 Digital Signal Processing 3. XCS 305 System Software 4. XCS306 Data Structures 5. XCS307 Micro processor and microcontroller lab	**5**
	V semester	1. XC 504 Computer Networks 2. XCS 505 Theory of Computation	**2**
	VII Semester	1. XCS 704 Social Engineering 2. Embedded System 3. Digital Image Processing 4. Cryptography and Network Security 5. Object Oriented Analysis and Design	**5**
		Total	**14**
Computer Applications	I Semester	1. YCA103 Programming in C and C++	**1**
	III Semester	1. YCA301 Design and Analysis of Algorithm 2. YCA305 Microprocessor	**2**
	IV Semester	1. YCA401 Object Oriented Analysis and Design	**1**
	V Semester	1. YCA501 XML & Web services 2. YCAE55 Internet Protocol	**2**
		Total	**6**
Software Engineering	I Semester	1. YSE105 Computer Fundamentals 2. YSE103 Computer Hardware 3. YSE104 Fundamentals of Computer 4. YSE105 Fundamentals of Digital Computer	**4**
	III Semester	1. YSE303 Object Oriented Programming and C++ 2. YSE304 Operating System	**2**
	V Semester	1. YSE501 Mobile Computing 2. YSE504 Object Oriented Analysis and Design 3. YSE506 Wireless Technology	**3**

	VII Semester	1. YSEE57 User Interface 2. YSEE67 Client Server Computing 3. YSE702 Software Design 4. YSE703 Dot Net Technologies 5. YSE704 Entrepreneurship	**5**
	IX Semester	1. YSEE70 Network Protocols 2. YSE902 Software Testing & Quality Assurance 3. YSE901 Software Communication and Documentation	**3**
		Total	**17**
Information Technology	I Semester	1. XIT105 Basic Engineering I	**1**
	II Semester	1. XIT206 Basic Engineering II	**1**
	V Semester	1. XIT501 Total Quality Management 2. XIT503 Operating Systems 3. XIT505 Design & Analysis of Algorithm 4. XIT506 Database Management System	**4**
	VII Semester	1. XIT701 Entrepreneurial Development Management 2. XIT703 Mobile Computing 3. XIT704 Graphics and Multimedia 4. XITE C# & .Net	**4**
	VIII Semester	1. XITE Web Technology	**1**
		Total	**11**
Management Studies	I Semester	1. YBA 101 Written and oral communication 2. YBA102 Management Process and organization behavior 3. YBA107 Business Ethics and Corporate Social Responsibilities 4. YBA108 Environmental and Disaster Management	**4**
	II Semester	1. YBA201 Financial Management Studies 2. YBA202 Human Resource Management	**2**
	III Semester	1. YBAE51 Security Analysis and Portfolio Management	**5**

		2. YBAE52 Merchant Banking and Financial Management 3. YBAE54 Management Control System 4. YBAE58 Strategic HRM 5. YBAE61 Service Marketing	
		Total	**11**
Architecture	I Semester	1. XAR102 History of Architecture – 1	**1**
	III Semester	1. XAR302 History of Architecture - 3 2. XAR303 Theory of Architecture – 2 3. XAR305 Material And Construction – 3 4. XAR306 Computer Applications – 1	**4**
	V Semester	1. XAR502 Contemporary Architecture – 1 2. XAR503 Building Services – 3	**2**
	IX Semester	1. XAR903 Project Management and TQM 2. XAR905A Building Management System	**2**
		Total	**9**
Biotechnology	III Semester	1. XBT304 Basic Industrial Biotechnology 2. XBT305 Biochemistry 3. XBT306 Cell Biology and Micro Biology	**3**
	V Semester	1. XBT503 Chemical Reaction Kinetics 2. XBT504 Database & Pattern Mining 3. XBT505 Bioprocess Engineering	**3**
	VII Semester	1. XBT701Entrepreneur Development And Management 2. XBT702 Downstream Processing 3. XBT 704 Nanobiotechnology 4. XBT705 Animal Biotechnology 5. XBT708 Bioinformatics Lab 6. XBT710 Food Technology	**6**
		Total	**12**
	I Semester	1. XCE105 Engineering Graphics	**1**
	III Semester	1. XCE304 Mechanics of Fluids – 1	**1**
	V Semester	1. XCE501 Environmental Engineering 2. XCE502 Structural Analysis	**6**

Civil Engineering		3. XCE503 Steel Design 4. XCE504 Design of RCC Structures-I 5. XCE505 Transportation Engineering I 6. XCE506 Geo-Tech Engineering II	
	VII Semester	1. XCE702 Estimation and Costing 2. XCE703 Earth Quake and Seismic Resistive Structures 3. XCE 703 Total Quality Management 4. XCE705 Prestressed Concrete 5. XCE706 Air Pollution Control and Management	**5**
		Total	**13**
Electrical and Electronic Engineering	III Semester	1. XEE302 Electromagnetic Field Theory 2. XEE303 Electrical Machines -1 3. XEE304 Electronic Circuits	**3**
	V Semester	1. XEE501 Power Electronics & Drives 2. XEE502 Communication Engineering 3. XEE503 Protection Switch Gear 4. XEE504 Measurement & Instruments 5. XEE506 Linear Integrated Circuits	**5**
	VII Semester	1. XEE702 High Voltage Engineering 2. XEE703 Design of Electrical Apparatus 3. XEE704 Power System Operation & Control 4. XEEE56 BioMedical Instrumentation (Elective) 5. Neural Networks & Fuzzy Logic (Elective)	**5**
		Total	**13**
	I Semester	1. XEC105 Computer Programming 2. XEC106 Basic Engineering 3. XEC109 Computer Programming Lab	**3**
	III Semester	1. XEC301 Professional Ethics & Human Values 2. XEC303 Signals and Systems 3. XEC304 Digital Electronics 4. XEC305 Electromagnetic Fields 5. XEC307 Digital Electronics Lab 6. XEC308 Electronic Circuits & Simulation Lab	**6**

Electronics and Communication Engineering	V Semester	1. XEC501 Total Quality Management 2. XEC503 Digital Signal Processing 3. XEC504 Communication Theory 4. XEC505 Microprocessor & Microcontroller 5. XEC506 Control System 6. XEC507 Digital Signal Processing Lab 7. XEC508 Microprocessor & Microcontroller Lab	**7**
	VII Semester	1. XEC702 Embedded System 2. XEC703 Optical Communication System 3. XEC704 Microwave Engineering 4. XEC707 VLSI and Embedded System Lab 5. XEC708 Microwave and Optical Lab 6. XECE61 High Speed Networks 7. XECE68 Telecommunication Switching & Networks	**7**
		Total	**23**
Mechanical Engineering	I Semester	1. XME104 Basic Civil & Mechanical Engineering 2. XME105 Engineering Graphics	**2**
	III Semester	1. XME303 Elements Of Electronics Engineering 2. XME304 Strength of Materials 3. XME305 Fluid Mechanics 4. XME306 Machine Drawings	**4**
	V Semester	1. XME502 Mechanics of Machine-II 2. XME504 CAD/CAM 3. XME505 Automobile engineering 4. XME506 Total Quality Management	**4**
	VII Semester	1. XME703 Renewable Energy Sources 2. XME704 Power Plant Engineering 3. XME706 Fluid Power Engineering	**3**
		Total	**13**
Engineering Common Subjects		1. XCS301 & XIT302 Discrete Mathematics 2. Numerical Methods 3. Transforms & Partial Differential Equations(Maths-3) 4. Probability	**4**

Aeronautical	III Semester	1. XAE303 Thermal Engineering 2. XAE304 Fluid Mechanics and Machinery 3. XAE306 Elements of Aeronautics	**3**
	V Semester	1. XAE502 Aircraft Performance	**1**
		Total	**4**
Chemical Engineering	III Semester	1. XCH306 Process Fluid Mechanics	**1**
	V Semester	1. XCH505 Process Heat Transfer 2. XPC502 Petroleum Refinery Engineering II 3. XPC504 Chemical Reaction Kinetics 4. XPC506 Petroleum Refinery Engineering & Petrochemicals	**4**
	VII Semester	1. XPC702 Industrial Pollution Prevention and Control 2. XPC703 Chemical Process Utilities 3. XPC704 Process Economics and Industrial Management 4. XPC705 Mass Transfer Fundamentals 5. XPC705B Transport Phenomena 6. XPC706 Energy Management in Chemical Industries	**6**
		Total	**11**

CUMULATIVE E-CONTENT REPORT

S. No.	Department	Total Subjects
1.	First Year Common Subjects	**05**
2.	School of Computing Sciences and Engineering	**19**
3.	Computer Science and Engineering	**14**
4.	Computer Applications	**06**
5.	Software Engineering	**17**
6.	Information Technology	**11**
7.	Management Studies	**11**
8.	Architecture	**09**
9.	Biotechnology	**12**
10.	Civil Engineering	**13**
11.	Electrical and Electronic Engineering	**13**
12.	Electronics and Communication Engineering	**23**
13.	Mechanical Engineering	**13**
14.	Engineering Common Subjects	**04**
15.	Aeronautical	**04**
16.	Chemical Engineering	**11**
	Total	**185**

1 hour 20 minutes audio and video lecture on optical fibre communication

Digital Initiatives undertaken for Higher Education at RKMVU-Cbe Campus

The Ramakrishna Mission Vivekananda University, Coimbatore Campus has undertaken various activities towards incorporating digital initiatives in higher education and enhance the quality of teaching learning experiences of its students. These activities are enumerated below:

Online journals of Ramakrishna Mission Vivekananda University, Coimbatore

FDMSE: Journal of Disability Management and Special Education (JODYS) (http://www.jodys.info/)

GAPEY: International Journal of Adapted Physical Education and Yoga (IJAPEY) (http://www.ijapey.info/)

FYCSAR: Journal of Computer Applications and Research (IJCAR) (www.ijcar.info)

FAR: Vivekananda University International Journal of Agricultural Research" (VUIJAS). (www.vijas.info)

Online access to Journals at Ramakrishna Mission Vivekananda University, Coimbatore

FDMSE provides access to fifteen online journals in the area of education, special education, and educational research. Most of these journals accessed are available as open access journals.

GAPEY provides facilities for accessing open access journals online to its students.

FYCSAR provides access to online digital library (Institute of Electrical and Electronics Engineers (IEEE digital library) and Association of Computing Machinery (ACM digital library)

Faculty members and students of the RKMVU-Coimbatore campus can make use of the National Digital Library.

Workshops and projects undertaken towards digital initiatives

FDMSE:

- Conducted a 2 – day workshop for Special Educators on "DAISY books reading and creation on 6th and 7th of April.

- Undertook a project on converting the words in the Indian Sign Language Dictionary, Banking and Physics terminologies into eleven Indian Languages for mobile application in collaboration with c-DAC, Bangalore. This project was funded by CBM.

GAPEY:

The following staff members have associated with "e-PG Pathshala: e- Content Creation for Postgraduate Students"

- Dr. S.Alagesan, Professor and Head: Paper coordinator and content writer for the paper "Officiating and Coaching in Football" (5 modules)
- Dr.P.J.Sebastian, Professor: Content Writer for the paper "Officiating and Coaching in Football" (3 m odules)
- Dr. A. Sathiyamoorthy, Physiotherapist: Content writer for the paper "Athletes Care and Rehabilitation" (2 modules)

Learning Management Systems

FYCSAR has Claroline Learning Management System for storing, accessing, retrieving data related to all courses.

Digital way for educational excellence

FDMSE

Research scholars and faculty members undertake courses offered through MOOC platform such as Coursera to enhance their professional knowledge and skills. These are:

S.N	Title/ name of the Online course	Institute/ centre offering the course	Duration
Course pertaining to research and subject areas			
1	CCRM- Certificate Course on Research Methodology	Alexis Institute in Collaboration with Govt. of India	3 Months
2	Assistive Technologies and Online Learning	The Open University, UK	10 Hours

3	Psychological research, Obedience and Ethics	The Open University, UK	20 Hours
Courses pertaining to research area			
1	Discover Yourself: An Online Program on Human Values	Sai International Centre, Delhi	10 Hours
Courses pertaining to subject area			
1.	Autism + Sensory Issues	Autism West Midlands	1 Day
2.	Introduction to Autism: Free Online Series for Educators	Geneva Centre for Autism	5 Hours
3.	Autism 101 Online Course	Autism society www.autism – society.org	1 Day
4.	Many Faces of Autism	Autism Certification Center	1.5 Hours

FYCSAR

FYCSAR offers **affordable** courses offered through the MOOC platform of IIT Mumbai, an initiative of MHRD and integrated these courses into its academic programmes by passing the same through the Board of Studies and Academic Council of the University. Since these courses are prepared by IIT Mumbai they are of **high quality**. Undertaking these courses as part of their academic programmes is mandated by their **inclusion** into the curriculum of the programme and further ensured through the internal assessment system which allot points for completion of these courses

We offer MOOC of Spoken Tutorial of IIT Bombay, sponsored by MHRD under the scheme of NMEICT. Under this scheme 226 students of FYCSAR completed course certification on BOSS Linux, Java Business Application, Netbeans, Advance C, LibreOffice Suite Base, and GIMP. Hundred students completed online certificate examination on Java, Linux, and C programming.

MOOC courses incorporated in the curriculum are as follows:

S.No	Subject	Semester	Spoken Tutorial Certificate Course IIT Bombay
1	Object Oriented Programming using C++	III	Advance CPP
2	Operating System	IV	Ubuntu Desktop
3	Relational Database Management System	IV	Postgre SQL
4	Core: Open source application development-I (PHP and Mysql)	VI	PHP & MySQL
5	Open Source Application Development -II (Java)	VI	Fundamental Programming Structure in Java
6	Linux Administration	VII	BOSS Linux
7	Web Technology II	VII	Gedit Text Editor & Joomla
8	Data mining and Knowledge Engineering	VII	R language
9	Mobile Application Development	VIII	Netbeans

MOOC certification is included in the internal assessment as follows:

Internal Marks- Break up (40 Marks)		
A	Continuous assessment – I	**10 Marks**
B	Continuous assessment – II	**10 Marks**
B	Pre Semester 60 Marks converted to 10 Marks	**10 Marks**
C	Percentage of Attendance 95% - and above - 5 Marks 90% - 94% - 4 Marks 85% - 89% - 3 Marks 81% - 84% - 2 Marks 75% - 80% - 1 Marks	**5 Marks**
D	Assignment / Seminar	**5 Marks**
Total		**40 Marks**

- ✓ Continues assessment-1 will be conducted by teacher.
- ✓ Continues assessment-2 will be either conducted by the teacher or successful completion of Certificates of Spoken Tutorial of IIT Bombay will be considered.

In this way, the digital initiatives are utilized to provide high quality education for low fees. Further, advancements in technology and computing are incorporated in the courses as they occur and therefore **retraining the workforce** is taken care of through these online courses. This also **increases the skilled labour force**.

CISCO is an organization which is having CISCO Networking Academy to improve the IT skills and career building for institutions and individuals. This networking academy brings a dramatic change in the digital economy since 1997. FYCSAR also offers CISCO Certified Network Associate (CCNA) Routing and Switching Modules I – IV for students of the Networking stream. Twenty-five students have enrolled in this course. To retrain the workforce, online courses such as Cyber Security (CS), Internet Of Things (IOT), Linux Administration (LA) and Programming in Python. Therefore skilled human resources are provided to the industry.

Faculty members of FYCSAR underwent certification courses of MOOC conducted by Edx, Coursera, Alison and Udemy.



DIGITAL INITIATIVES AT SASTRA UNIVERSITY



ICT best practices in e-governance @ SASTRA



ICT best practices in Teaching Learning @ SASTRA



Challenges in adopting new Technologies



Way forward

DIGITAL best practices in e-governance @ SASTRA

ICT Service wing (A Dedicated Team)

- Networking / Hardware/ In-house support engineers & State of the Art Infra including Studio & Creative Media facilties
- Software Development

ICT Enabling process

- Identify the process that needs to be ICT enabled
- Involve Stake holders

Deploy a sustainable model

- User –centric & contemporary
- Timely and efficient service delivery

E-Governance tools deployed

- e-Varsity: Admissions, Course registration (CBCS/ACRS), attendance, assessment, fee payment, hostel room allocation, Placement Portal, Online Assessments, etc.
- SAAS based solutions on cloud - e-Application Forms, Payroll, HRMS: Admissions, Faculty data & salary remittance
- Oracle – Purchasing module
- Student Toolkit & other freeware – Email solutions, Open source tool developed & maintained by students for various activities – Feedback, Hostel permissions placement portal, etc.
- Mobile Apps for Collaborative Learning & Learning Analytics
- Stakeholders involved – Management, Faculty, Students, Non-teaching staff, Parents and Recruiters


SASTRA UNIVERSITY
Undergraduate
Postgraduate
Ph.D
Admissions 2014-15
Admission FAQ
Advertisement for Admissions 2014-15


STUDENT TOOLKIT
Connecting the dots . _ .
Log In As
University User
Alumni
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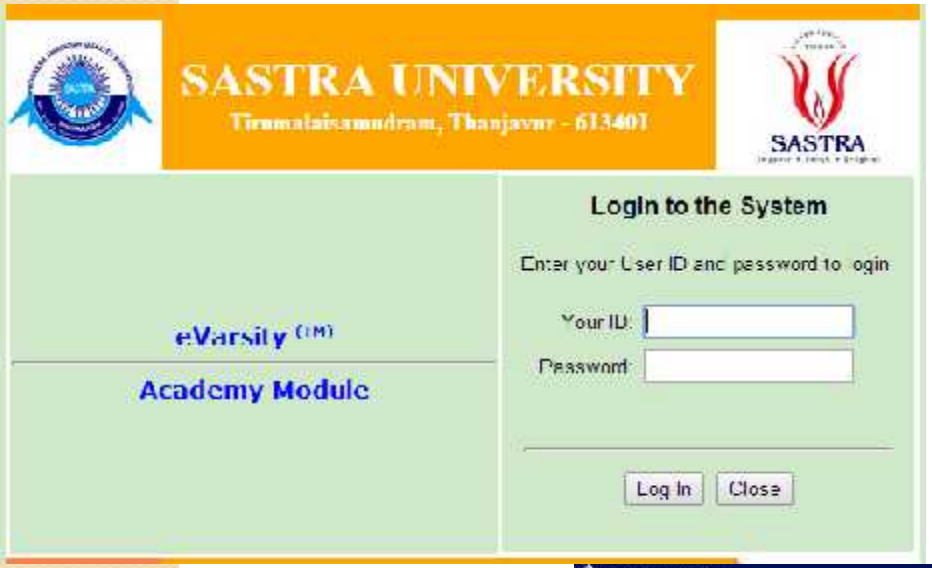
SASTRA UNIVERSITY
Tirumalaisamudram, Thanjavur - 613401
SASTRA
eVarsity (TM)
Academy Module
Login to the System
Enter your User ID and password to login
Your ID:
Password:
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SASTRA UNIVERSITY
Tirumalaisamudram, Thanjavur - 613401
SASTRA
PARENT WEB INTERFACE
Parent Login
Register Number
Password
Captcha image
Type captcha text
SUBMIT
REFRESH
Log on with your words 'Date Of Birth' as password [Date Format ddmmyyyy E.g. 03121990]






SASTRA The first e-University - [F I R S T I N F O T E C H P v t. L t d.]
PROGRESS THROUGH QUALITY EDUCATION
ARTS, SCIENCE, TECHNOLOGY & RESEARCH ACADEMY
SHANMUGHA
Logon
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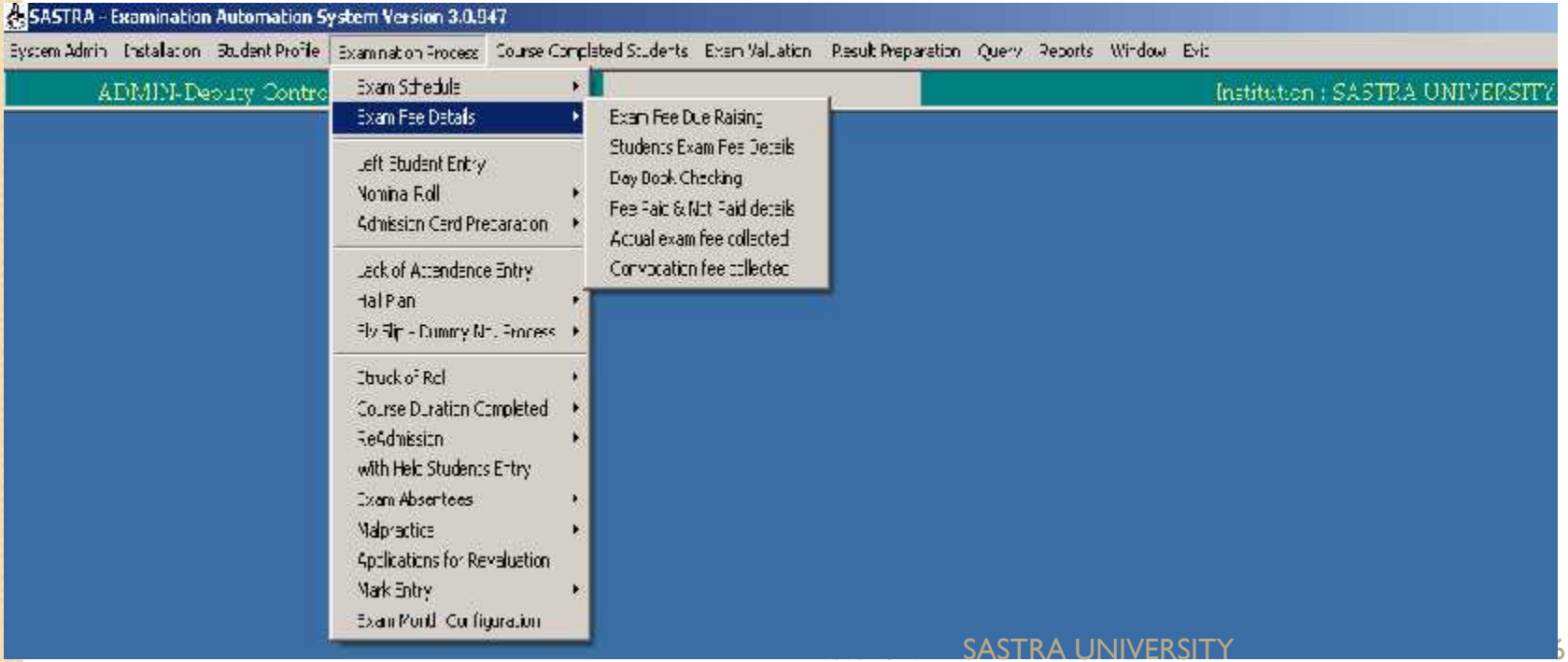
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Installation
Student Profile
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Course Completed Students
Exam Validation
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ADMIN-Deputy Contro
Institution : SASTRA UNIVERSITY
Exam Schedule
Exam Fee Details
Exam Fee Due Raising
Students Exam Fee Details
Day Book Checking
Fee Paid & Not Paid details
Actual exam fee collected
Convocation fee collected
Left Student Entry
Nomina Roll
Admission Card Preparation
Lack of Attendence Entry
Hall Plan
Fly Slip - Dummy No. Process
Stock of Roll
Course Duration Completed
ReAdmission
with Hele Students Entry
Exam Absentees
Malpractice
Applications for Revaluation
Mark Entry
Exam World Configuration

Teaching/Learning – ICT tools developed/deployed

- e-Varsity – Internal assessments, student counselling, online entrance exams, clicker based assessments, CBCS, Hostel Room Allotment, etc.
- Mobile App that embeds a Course as a Community model – an academic Facebook approach towards a 360° teaching-learning delivery model
- NPTEL and other popular tools like Spoken tutorials, T10KT, MOOCS & blended MOOCS, FOSSE, etc. – Both as a Contributor & Consumer:

  13 NPTEL Courses, 10 National Pedagogy Project, FOSSE & MOOCS Courses as a contributor

Difficulties encountered

- Integration across platforms and solutions
- Data integrity & Security
- Bandwidth availability & reliability
- Performance indicators – MIS leading to dashboard analytics based scorecard & appraisal and National Policy on Digital Prodcutivity
- Student – Faculty gap
- Smooth transition from paper to keyboard

Interventions Required

- Individual – Aggressive push-pull deployment, periodic training programmes,
- Institutional level – ICT Policy, ICT Manual, Periodic technology & user updates, policies linked to ICT use, admission to alumni approach, etc.
- Policy/Funding agency –

  Coherent synergy – Multi-institutional approach right from policy to last mile implementation

  Nationwide uniform ICT ecosystem -Transactional standards & Implementation protocols with customizable delivery units

  Performance based funding (NMEICT's 1 Gbps approach)

  Creation of digital warehouse, usage & pricing policy – public vs private

Thank you

Digitisation Efforts at

SRI BALAJI VIDYAPEETH

SRI BALAJI VIDYAPEETH

A DEEMED UNIVERSITY

LET WELL-BEING PREVAIL

SRI BALAJI VIDYAPEETH

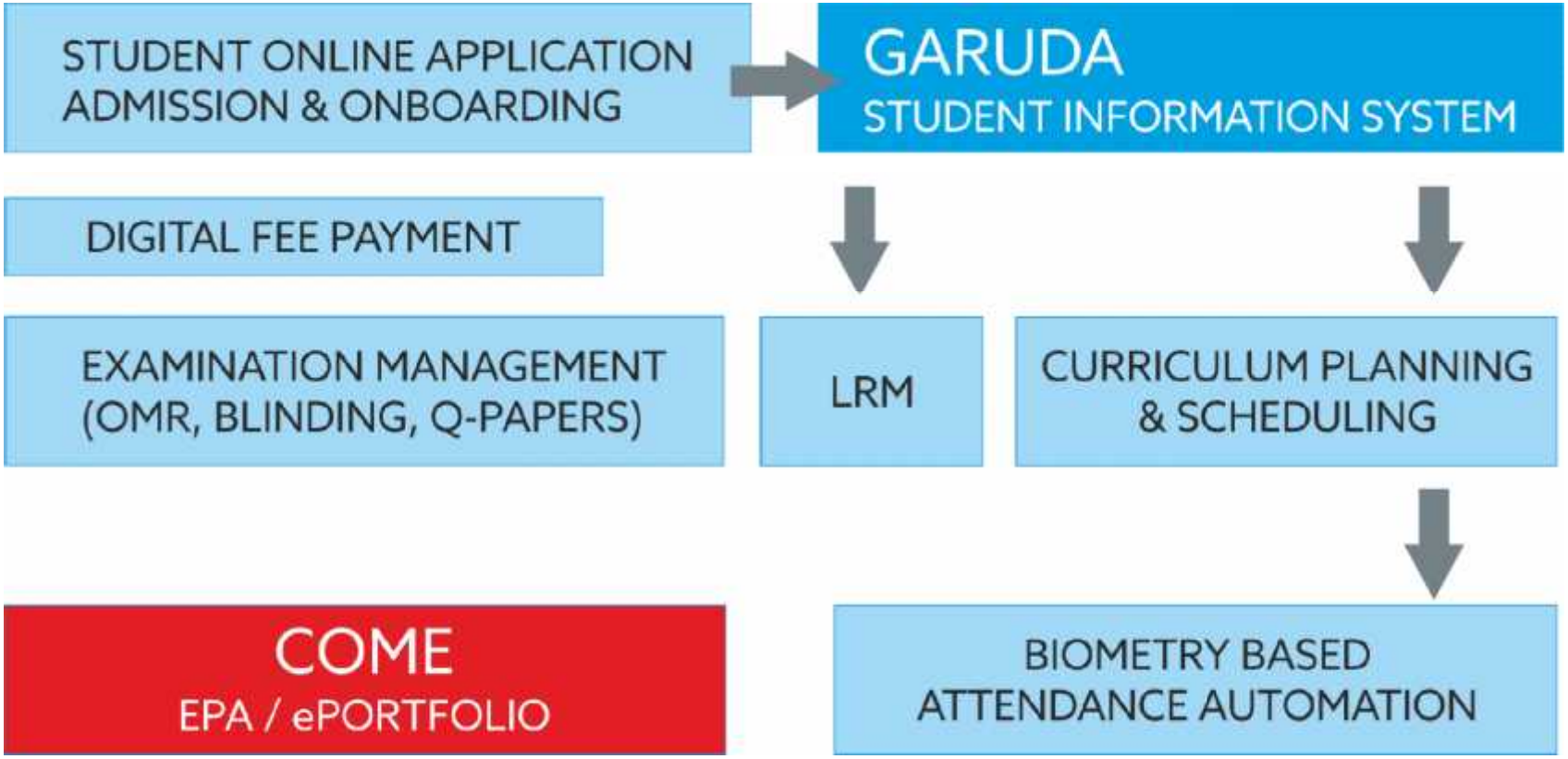
SBV is a digital campus

We highlight 2 components :

- **1 - E-portfolio for skills learning for PG**

2 – Digitized & objectivised Evaluation

Overview of **Digital SBV**



I. Competency-based PG education

- **A digitised e-portfolio** based approach to
- the design, implementation and assessment of learners' progress through
- a set of generic and specific competencies relevant to each specialty and
- implemented for **all PG courses in Clinical Medicine**

Competency Based Med. Education

1. Based on expected outcomes,
2. Define the Entrustable performance levels for each competency (milestones)
3. Use of e-portfolio and multi-source e-feedback to document if the milestones are reached; and
4. Continuous monitoring of e-portfolio to see if every PG is achieving the desired outcomes

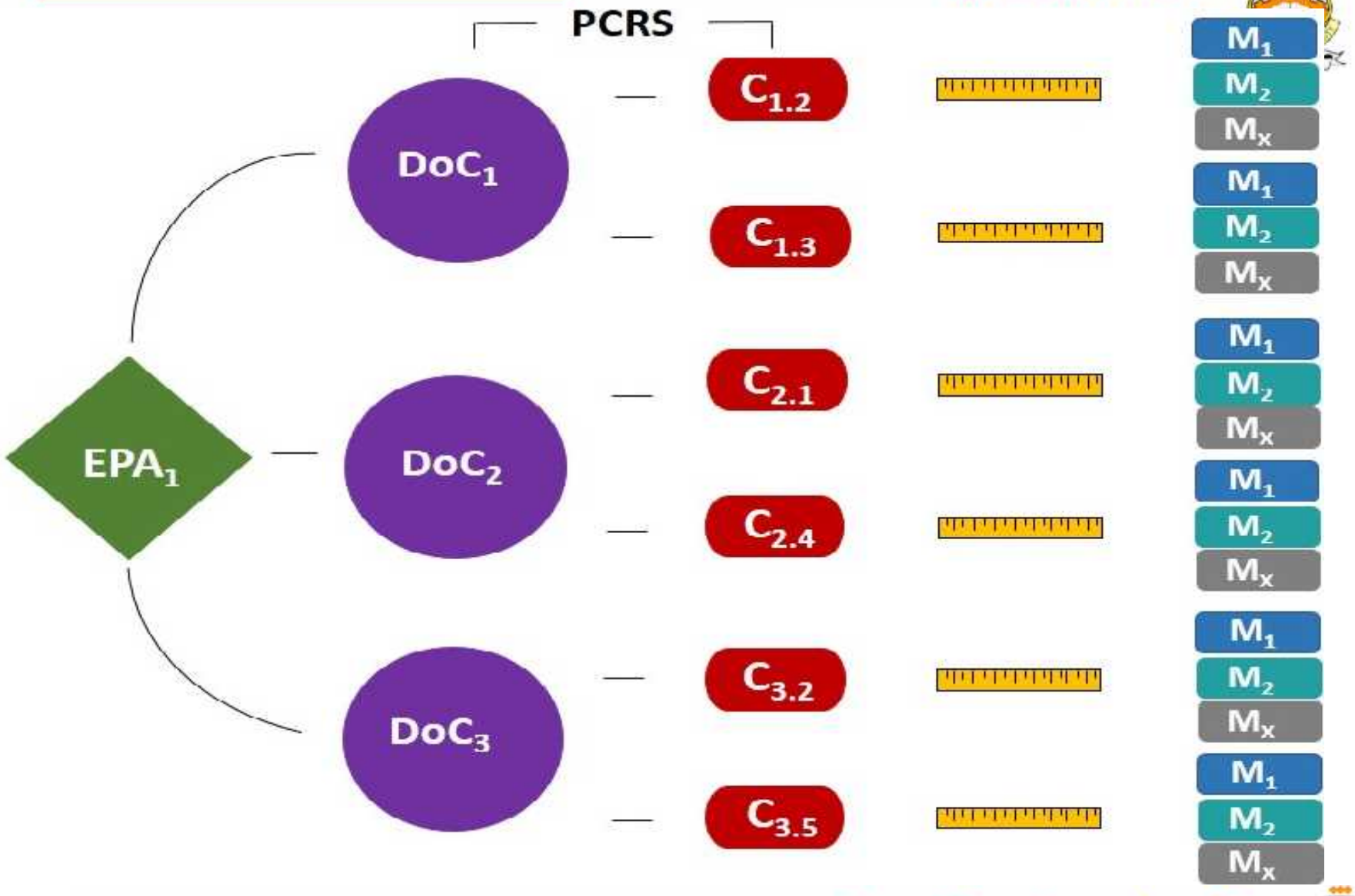
Abraham Flexner

Step 1. Outcomes to Competencies

- Digital Database of organized & structured set of interrelated competencies - competency framework.
- Broad distinguishable areas of competence – Domains of competency
  - 40 - 50 competencies in 6 Domains
  - 13 are generic for all PGs plus variable specific to each discipline

Step 2: Defining Performance Levels

- **Entrustable Professional Activity** Matrix – generic for all PGs plus specific for each specialty
- **Milestones** : markers of achievement of levels of performance in a developmental continuum
  - 5 Performance Levels: novice, advanced beginner, competent individual, proficient individual, and expert (who can teach others)


PCRS
EPA1
DoC1
DoC2
DoC3
C1.2
C1.3
C2.1
C2.4
C3.2
C3.5
M1
M2
Mx

Step 3: e-Portfolios

- Unique Digital Environment developed at SBV
- Trainee Journals, Log of activities
- Record of achievements, clinical work and outreach activities
- Reflective Practice – Trainee Mentor Interaction in digital mode
- Structured, Periodic Evaluation of Progress
  - E-portfolio every month; milestones every 3 months

SRI BALAJI VIDYAPEETH

Natasha Celia Saldanha Inbox Settings Logout

canvas GANESHA'S

Courses Grades Calendar

My portfolio
Natasha Celia Saldanha

- Home
- Daily log
- Patient Care
- Procedures
- Seminars
- Case conferences
- Journal Club (Critical appraisal)
- Faculty lectures
- Extramural postings
- Research
- Conferences / CME
- Teaching assignments
- Outreach
- Extra-Curricular activities
- Other activities

My portfolio > Daily log > May 2017

A specimen page of e-portfolio

How Do I...?

Daily log *Organise/manage pages*

Pages for this section

- May 2017
- April 2017
- March 2017
- February 2017
- January 2017
- June 2016 - Dec 2016

Edit this page

Back to portfolio dashboard

May 2017

DAILY ACTIVITY LOG

A daily routine of seeing ward pts from 8am to 9am, followed by ward rounds till 10:30am, after which OP cases are seen both new cases & review cases, which are discussed with a faculty.

Activities apart from the usual routine are mentioned below.

DATE	ACTIVITY
12/5/2017	PG clinical case conference - Dr. Monika S
16-05-2017	PG journal club (Critical appraisal) - Dr. Natasha C S, Dr. Suriyakumar T
16-05-2017	Faculty lecture - Assessment of intellectual disability - Ektha Jain
17-05-2017	Departmental PG e-portfolio review meeting
24-05-2017	PG seminar - Introduction to classification of mental disorders - Dr. Monika S, Dr. Natasha CS, Dr. Suriyakumar T

LOG OF CLINICAL WORK: OUT-PATIENTS

DATE	NAME	MRD No.	AGE	GENDER	DIAGNOSIS
02-05-2017	Jameela Begum H	14/262203	28	F	F78 Other mental retardation
02-05-2017	Theodare I	12/042389	44	M	F20 Schizophrenia
02-05-2017	Soundaram	17/180958	60	M	F32 Depressive episode
02-05-2017	Sudha	17/179716	26	F	X60-X84 Intentional self-harm
02-05-2017	Sumathi R	15/233062	42	F	F42 Obsessive - compulsive disorder

A specimen page of e-portfolio

Patient Care

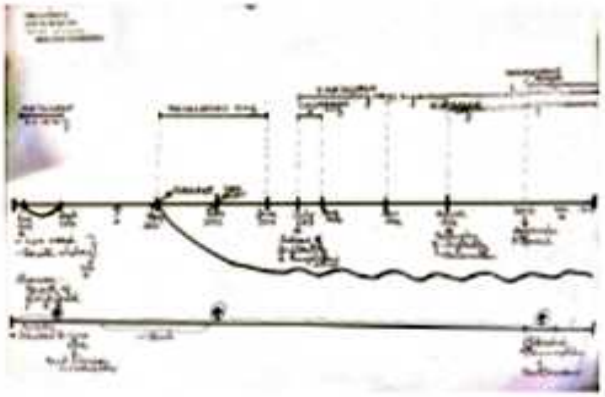
- Procedures
- Seminars
- Case conferences
- Journal Club (Critical appraisal)
- Faculty lectures
- Extramural postings
- Research
- Conferences / CME
- Teaching assignments
- Outreach
- Extra-Curricular activities
- Other activities

Organize sections
ePortfolio settings

Date of Admission: 10/01/2017 **Date of Discharge: 19/01/201**

Case of -

- Psychosis unspecified
- Dysthymia
- Nicotine dependence syndrome
- Alcohol - harmful use



Page comments

Natasha Celia Saldanha — Apr 29 at 20:09

@ Dr. Sivaprakash B Will add MRD details & socio demograpic data details. @ Dr. Sukanto Sarkar Thank you Sir. Will follow your suggestions hereafterwards.

Sukanto Sarkar — Apr 18 at 16:35

Nice Life chart Natasha...only comment is try to maintain 4 levels in a life chart. 1. Illness Chart 2. Medication Chart 3. Life Events 4. Substance (if it is not the sole factor in illness)

II. Objectivisation of Assessment

- Process Automated and Digitised with OMR
- Each Examiner assesses answers to one set of question(s) for ALL examinees in UG
- Multiple Examiners examine PG Answer Sheets, Double Blinded

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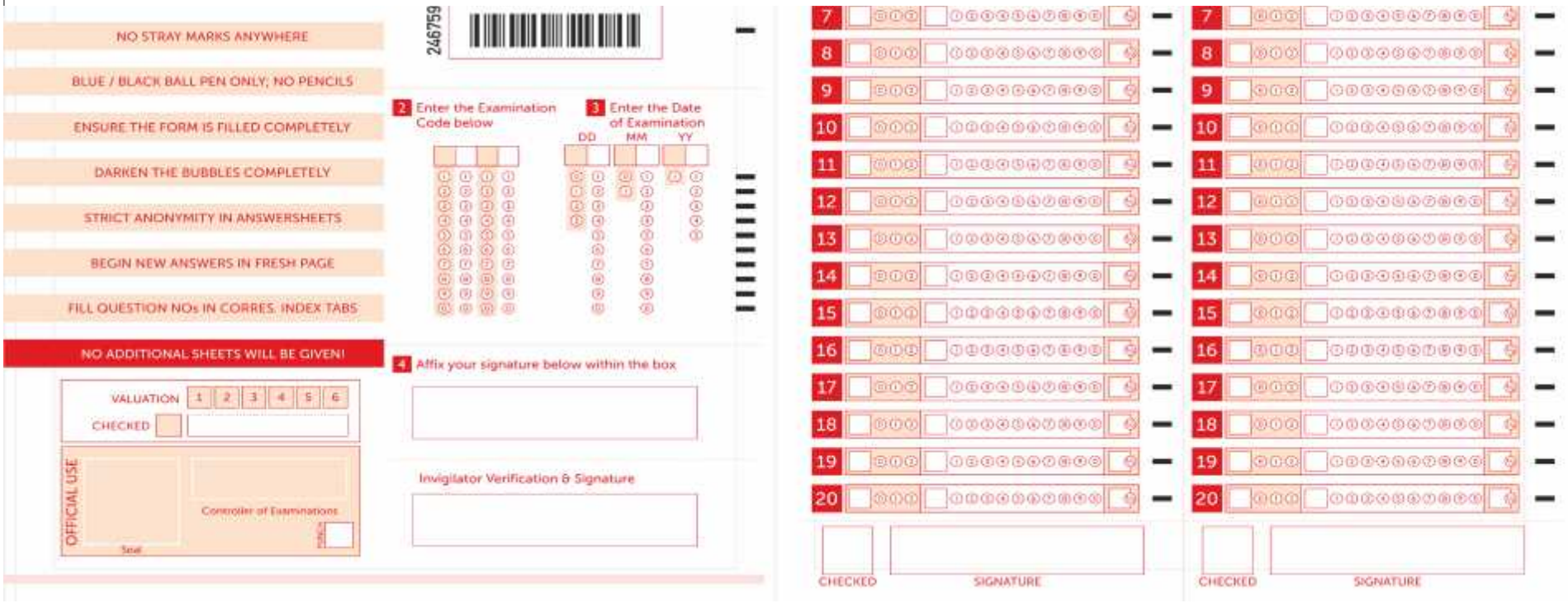
DEEMED UNIVERSITY

OMR based digitisation of evaluation



THANK YOU!

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A DEEMED UNIVERSITY

LET WELL-BEING PREVAIL

SRI BALAJI VIDYAPEETH

प्रो. रमेशकुमारपाण्डेयः
कुलपतिः

Prof. Ramesh Kumar Pandey
Vice Chancellor



श्रीलालबहादुरशास्त्रीराष्ट्रियसंस्कृतविद्यापीठम्
(मानितविश्वविद्यालयः)
केन्द्रीय-स्वायत्तशासी-संस्था (मा.सं.वि. मन्त्रालयः, भारतसर्वकारः)
'ए' ग्रेड (नैक)
बी-4, कुतुबसांस्थानिकक्षेत्रम्, नवदेहली-110 016
Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha
(Deemed University)
A Central Autonomous Body (Ministry of HRD, Govt. of India)
'A' Grade (NAAC)
B-4, Qutub Institutional Area, New Delhi-110 016

28 June 2017

The Secretary
University Grants Commission
Bahadur Shah Zafar Marg,
New Delhi-110 002

Subject : **(i) Digitization in Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha, New Delhi: Reg.**

Sir,

This has reference to your DO letter No. F.1-1/2017 (Secy), dated 26th June, 2017 regarding National Convention on Digital Initatives for Higher Education on 8th, 9th and 10th July, 2017 at Vigyan Bhawan, New Delhi. In this context, I am to inform you that Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha, New Delhi has taken the following digital initiatives for furthering higher education :

1. In the academic year 2014-15, an MOU was signed between INFLIBNET and Vidyapeetha to facilitate digitization of Ph.D. theses and to get all the digitized theses available on the website of INFLIBNET under Shodhganga Project. During last three years, more than 250 Ph.D. theses have been digitized and uploaded on the INFLIBNET. URL link of all digital resources are available on the Vidyapeetha website under head e-resources. Further digitization work is under process.

In order to provide better and effective services to all the clientele of the Vidyapeetha library, all available titles are fully barcoded and their bibliographical details are available in the software.

2. Under ePG Pathashala Project, the Vidyapeetha has prepared 640 modules for PG Sanskrit and submitted to INFLIBNET all the modules to post on website. Most of the modules with all quadrants have been uploaded.

3. Under MOOCs, the Vidyapeetha has prepared e-content of 3 Papers and submitted to SWAYAM to launch from 1st September, 2017.

4. The Vidyapeetha has also established a Virtual Class Room for preparing e-contents for the benefit of the students of Sanskrit.

This is for your kind information and necessary action. I will attend the meetings scheduled on 8th and 9th at Vigyan Bhavan, New Delhi.

Yours faithfully,

R.K.Pandey
(R.K.Pandey) 29/6/17

दूरभाष: 011-26851253, 26564003, Fax : 011- 26520255
E-mail : profrkpandey@yahoo.co.in, vcslbsrsv@yahoo.co.in

E – initiatives at Sri Ramachandra University, Chennai

Sri Ramachandra University has a dedicated website for the University. Apart from the website which provides all information about the university, SRU Connect is a web based portal which provides access to Staff, Faculty, Students and Alumni.

I. E-learning Portal for MBBS

- Access through SRU connect login.
- Latest Moodle based Learning Management System, launched in Sept 2017 with all features of LMS including user registration, uploading of academic content, User progress tracking, Question banks, automated gradings etc
- Hosted on own independent server dedicated purely for e-learning.
- Dept Heads of departments trained to perform site administration of own departments.
- Complete autonomy for Heads of depts in uploading academic content.
- Faculty members trained in Rapid authoring software (knowledge presenter) for creation of e content
- Faculty members trained in multimedia applications – high quality audio recording and post recording processing, video recording and editing.
- Full time dedicated services of 3 animators for preparation of e content.

II . All lectures have been digitalized as PPT Presentation mand provision made to upload on our University wsebsite.

III.SRU Connect Log in features :

- Individual profile
- Accounts
- Academics – Time tables, mark sheets, academic notifications
- HR information – pay, leave, online leave applications and approvals
- Library – access e library, multimedia
- Attendance & Duty roster
- Operation theatre booking
- Purchase & store – purchase order request, indent views.
- Repairs – Biomedical repairs, other repairs
- Complaints, complaints view, incident report

IV. E- Governance

SRU Connect General Features:

- Access via login ID and password.
- General Information on Research, Academics, Hospital, Internal quality assurance cell, Controller of examinations, Feedback graphs from faculty, alumni, students and patients.
- Announcements, news, circulars.

V.

Management Information System [COEMIS] is a versatile, purpose –built software was created over the past two years to seamlessly connect between the user departments and the information receiving system at CoEs office to gather data on student performance. Such data can then be processed for end semester examinations in real time for the purpose of conducting examinations, evaluation for all university programmes and creating the database for analysis of student performance. It includes a dynamic and user controlled programme for creating:

- examination registration process
- detained List
- hall tickets
- exam schedules
- collecting internal assessments for determining eligibility of candidates for University examinations
- programme to collect practical exam marks online
- post exam evaluation
- creating final results and applying the promotion rules
- creating and printing grade cards and mark sheets

With the introduction of CBCS for the 24 programmes the entire process had to be reevolved for accomodating new regulations, for improving the timely input of data, and tracking the performance of students.

Such an e-Governance system has helped us to handle crisis situations like:

- postponement of exams [due to natural calamities and others]
- conducting exams in two sessions to reduce time taken for the process
- to declare exam results on time and early enough for students to progress
- to monitor the progress of a student in the given programme

Most importantly, the system has created an information database that helps members of faculty to monitor student progress.

We are also in the process of introducing paperless digital Exam pad which is also environment friendly.

(Established under section 3 of the UGC Act 1956, by notification No.F.9-12/2001-U3 Government of India)
Re-Accredited by NAAC with 'A' Grade
Founder: Prof. Dr. S. B. Mujumdar, M.Sc.,Ph.D. *(Awarded Padma Bhushan and Padma Shri by President of India)*

Initiatives taken in the field of digitization by Symbiosis International University (SIU)

About SIU

The Symbiosis International University (SIU) was established under Section 3 of UGC Act, 1956, in the year 2002, with the basic objective of encouraging the dissemination, advancement, development and application of knowledge at the Under Graduate and Post Graduate levels.

SIU encourages the use of technology in content creation and dissemination of knowledge. Some of the key initiatives adopted by the various constituents / departments of SIU are enumerated below:

1. **Knowledge Creation**
   - Use of various **open source e-learning technologies** to enhance teaching and learning.
   - Moodle Teams to administer and develop LMS
   - **Virtual Programming Lab (VPL)** – An open source application to enable writing and execution of software programs remotely
   - Adoption of **FOSSEE** in the curriculum
   - FOSSEE – Open Learning System – a LMS developed by SICSR has been made available on **openforge.gov.in** for use and is available for enhancement of functionality
   - Developed Android application to teach programming to beginners (school children). This too is published on **openforge.gov.in**
   - Creation of a repository of lectures and course material.
   - Contribution towards content creation for **e-Pathshala,** an initiative of the Ministry of Human Resource Development. SIU resources contributed to this in collaboration with National Law University – Delhi and National University of Juridical Sciences.

2. **Knowledge Dissemination**
   - In-house development of web portals and virtual labs to disseminate e-content in specific domains such as Telecom, Management, Law, Computer Science, etc.
   - Uploading of content on Social Media
   - Encouraging the use of digital libraries among faculty and students
   - Contribution to e-Shodhaganga – a Ph.D. thesis repository
   - Provision for **incorporation of MOOCs (including those in SWAYAM)** in programme structure
   - **Transnational lectures** and resource sharing with collaborators in UK, EU and Australia. Sessions include:
     - Mooting Skills

        - Comparative theories in Health Care
        - Internationalization of Higher Education
    - Use of blogs by faculty and Directors

3. Digitization in SIU

- Online Registration and Admission process
- Finance process is online (Fee collection, Cancellations and Refunds)
- Ph.D. Entrance Test conducted in online mode in 2017
- Academic governance on track towards full digitization (eligibility, examination, course catalogue, student life cycle management)
- Digital literacy drives in villages and hamlets near our campuses in Pune and Hyderabad

Digital Initiatives for Higher Education at VELS University, Chennai-600117

Uninterrupted Internet facility is available for students and staff members of VELS University. Fiber optic cable based Intranet, Wi-Fi enabled class rooms and dual link (BSNL & Airtel) to World Wide Web enable the students and staff members to use the Digital education system effectively.

VELS University is one of the recognized Remote Centres for conducting ISTE workshops. Faculty of VELS University and faculty from other universities and colleges located at Chennai attend the ISTE workshops regularly. So far, twenty five ISTE workshops have been conducted at VELS University.

IIT-Bombay is enabling VELS University to function as a Relay Centre for providing Digital education to the students of Secondary and Higher Secondary schools located in Kanchipuram District in which the university is located.

The Faculty and students of VELS University are regularly accessing https://onlinecourses.nptel.ac.in. The following online NPTEL courses have been made part of university curriculum.

1) Bio-Energy
2) Tissue Engineering
3) Knowledge Engineering
4) Finite Element Analysis
5) Structural Analysis – I
6) Mechanics of Solids
7) Electromagnetic Theory
8) Optical Communication

Massively Open Online Course materials of TED Talks are downloaded and stored in the local server for the faculties, Students and Research Scholars for quick access. In assisting Blended Learning Initiative Using Open Source, VELS University is having a specialized web page of its own; it acts as a portal for all resources of the library, especially the electronic resources by way of providing multiple information in single web page. The Subject-Gateway Portal contains the resources such as e-Journals, e- Books, Electronic Theses & Dissertations, Institutional Repositories, Open Courseware (MHRD resources such as SWAYAM, ePG Pathsala, INFLIBNET, Consortium for Educational Communication and International Open courseware like edx, Udacity, MIT Open Courseware, Coursera, etc.), Career Portal, Soft Skill Portal etc..

To facilitate quality teaching & research, staff and students have been provided access to 12040 e-Journals and 130000 eBooks from EBSCO, ProQuest, J-Gate, BLOC, IEEE/IEL, ASME, ASCE, NPTEL, Micromedex's Drugdex Systems, Bentham Science Pharmacy, Inventi Online, Nature, Law Finder, AIR Infotech Comprehensive, LexisNexis India Law Online, Manupatra for Law,AIR online for Law and eBrary ProQuest Academic Complete.

Almost all the organizations are turning to use of some sort of Enterprise Resource Planning (ERP) package to find solution to their information management problems. It has become necessary to educate the students on the intricacies of ERP. SAP is a German based Company with business interest across the globe and is the market leader in applications & analytics. ERP using SAP modules are used by more than 11,700 companies around the world. Queensland University of Technology (QUT), Australia operates a SAP University Competency Centre which hosts and provides educational institutions, in the Asia, Pacific and Japan region, with access to various SAP software applications. VELS University has become a SAP University Alliance Partner under SAP's University Alliances Program and is allowed to access and use SAP Products hosted by QUT's University Competency Centre (UCC) for conducting a course on ERP-SAP.

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COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
KERALA

A Presentation on the best practices in the university

Prof. J. Letha, Vice- chancellor

The Cochin University of Science and Technology (CUSAT) was established in 1971 with a specific mandate for taking up research and development in frontier areas relevant to the State of Kerala and to cater to the aspirations of the local population. CUSAT is the only University in the State to give equal importance to all streams of knowledge. The regional importance of being located on a long costal line of Kerala is reflected in the host of courses offered by the University. That the programmes offered by the University include marine sciences, fisheries, atmospheric science, rubber technology, ship technology, environment bear testimony to the commitment of the University to regional concerns. The University while aims at being in the top ten universities in the country also strives to reach out to the community in need of technical help in dealing with their livelihood.

To achieve this, the University has developed multipronged initiatives. Some of them are described briefly below:

a. Digital Initiatives.

- With the introduction of the internet, the vast potential of ICT was realised by the University as early as 90's.
- The University implemented campus-wide optical fiber network with the financial help from the Govt. of the Netherlands.
- Internet connection was leased and round- the- clock internet was made available free of cost for the benefit of the academic community. Now the campus has three leased lines with a combined 300 mbps connectivity.
- The National Knowledge Network has presence in the campus through two dedicated connections.

b. Innovative methods for enhancing teaching – learning process

- Courses in Online mode are initiated, taking advantage of the ICT infrastructure available.
- Credit earned through identified online courses is accepted in the University
- Flipped class rooms are introduced where in students lead the classroom activities.
- CBCS based curriculum is introduced at P G level
- Interdisciplinary electives are encouraged.
- Academic calendar and academic bulletin are published in advance and strictly followed.
- Teaching plans are prepared in advance for the conduct of classes.
- Continuous assessment of the student through class activities, exams and assignments.
- Stress is given for hands-on training in the learning process. (For example: A full ship is installed in the campus for Marine Engineering students)
- One-semester long project work is a part of the curriculum for most of the PG courses.

- Project reports / dissertations, library assignments, group discussions, Role play, Moot Court, student seminars, open book test etc. form part of the learning process
- Departments have been given freedom to appoint Adjunct Faculty in order improve the quality of teaching learning process.

c. Innovations in improving the administration of institutions

- e- governance is being implemented in the University. This is an initial step towards a completely paper-free office and being environment- friendly.
- Flexi-timing is given to faculty members and office staff by installing biometric attendance system so as to enable them to contribute more effectively.
- Purchases are routed through the e-tendering system of the Govt. of Kerala to bring more transparency and speed.
- Examination processing, starting from student registration to publication of results, is completely online.
- All-India admission test is conducted in online mode
- Screening tests for staff recruitment is done in online mode.
- Some of the Departments have opted for ISO certification to bring in more efficiency and transparency.

d. Measures for promoting research

- Huge investment to the tune of Rupees 340 crores is in pipe line form the Govt of Kerala for improving research and academic infrastructure in the campus. This will enable establishment of state- of- the art, world class research environment in the campus and boost research output.
- Principal investigators of projects are given full financial independence in running funded projects in an effort to reduce delay due to bureaucratic hurdles.
- University advances money once the administrative sanction is received from the funding agency. This enables complete utilization of the funds within the time frame.
- Young experienced faculty members with international exposure recruited to compensate for the dwindling strength of the senior faculty members due to retirement.
- Seed money to the tune of Rs. 5 Lakhs is given to the new faculty to enable them start by submitting research projects.
- Workshop on the avenues for funded projects and submission of project proposals are organised on a regular basis.
- Workshop on IPR related issues, patent filing are organised in the campus
- Familiarization with the administrative procedures through workshops with view to avoid delays due to formalities and ignorance.
- Research intensive Departments are given special assistance from the State budget for procurement of state-of-the art equipment for further boosting the research ouput.

e. Major efforts at involving with community for improving livelihoods

- National Centre for Aquatic Animal Health (NCAAH) – has a project on Innovative reforms in Marine Biotechnology and Development of sustainable aquaculture. It has
    - helped farmers in completing successful crops of P. monodon
    - extended the services to 257 farms covering an area of 1,102 acres
    - The service has been extended to Maharashtra, Andhra Pradesh, and Gujarat.

- Advanced Centre for Atmospheric Radar Research (ACARR) has established a radar centre that has immense applications in Meteorology, Thunderstorms, Weather, Climate Change and Civil aviation.
    - It publishes weather predictions for the benefit of the farmers and fishermen.

f. Imparting digital education

- Conducted training programme on mobile –based cashless transactions for the University community
- NSS volunteers interacted with the locals to help them familiarize with the cashless transactions.
- The potential of NPTEL is introduced to the students.

g. Swachh Bharat Abhiyaan

- NSS volunteers are in the forefront in this mission. The campus cleaning is a major activity for these group of students, apart from going to the villages for their cleaning mission.
- One day in a month is reserved for cleaning the laboratories and class rooms by the students and research scholars.
- The 'good lab prctices' is given more importance and awareness programmes are arranged for research scholars.
- Incinerators are installed in rest rooms.
- Biogas plants are installed in hostels for organic waste disposal.
- Use of plastic bags is discouraged in the campus
- Cooperate with the local bodies for segregation at source of the waste and its disposal.

h. Ek Bharat Shresht Bharat

- University admits students on All-India basis and hence the campus has a multi- cultural group of students hailing from different parts of the country. Within the fours years of their stay in the campus, they imbibe part of the local culture, a bit of the language. These students leave a part of their culture behind for the native students to remember which has a huge impact in appreciating each other's uniqueness and building one-ness among student community.
- The campus also has international students studying for various courses who also contribute the cultural diversity of the campus.
- Almost all the PG courses have the final semester completely for project works which they undertake in a place outside the state. This gives them opportunities to interact with the local culture, cuisine, people etc, in addition to upgrading their knowledge base.

i. Unnat Bhart Abhiyaan

- Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood (Kaushal) Kendra in the campus empower students by imparting entrepreneurship skills Enhance their employability
- Centre for Science in Society (C- SiS) is a science park in the campus that is open to general public and school children.
    - So far around 2 lakh students have been trained.

- More than 2700 schools participated
- ISRO pavilion is established in the park
- It has been recognised by IEEE and ISRO

- Students are being trained in different disciplines under the 'Additional Skill Acquisition Programme' of the Govt. of Kerala to improve their employability.

j. Action taken on reducing the legal cases

- Complete transparency is maintained in admission process by implementing online test (Common Admission Test) and online allotment.
- Grievance redressal cells function in the Departments and in the University where students can sort out complaints.
- Active PTA functions in all the Departments which help the authority in handling difficult issues.
- Mentoring system is introduced in the early semesters so that the new comers feel at home and the ragging –related litigations are avoided.
- Active gender justice cell and equal opportunity cell functioning in the campus make sure that the small issues do not flare up to full-fledged and long drawn litigations in the court.

k. Plan of action for promoting quality of teaching

- Encouraging young teachers to avail Faculty Development Programme (FDP) for pursuing higher studies in National Institutions.
- Student feedback system is functional in the campus. Feed back is taken once in every semester and the teachers are given the outcomes so as to enable them to correct themselves.
- Collaborative research and faculty exchange is encouraged. Exposure to research in better equipped labs in the country and abroad will broaden the knowledge horizon of our teachers.
- Erudite programme in which Nobel Laureates visit and stay in the campus for a period and interact with scholars and deliver lectures is implemented in the campus with the support of the Govt.of Kerala. This is expected to motivate teachers and students

l. Planning for future

a. 3 years

- To recruit top class faculty on a regular basis to fill up the existing positions as well as to augment the faculty strength
- To reward high achieving faculty members once in 5 years
- To promote personality development of CUSAT graduates for a smooth assimilation in a professional workforce
- To maintain direct contact with specialists in industry and academia who drive hiring of M.Sc and Ph.D graduates
- To develop business/ technology incubation centres where merit is rewarded and innovative business/ technology ideas are encouraged and incubated for potential use

b. 7 years

- To enhance the diversity and range of courses offered
- To significantly improve the faculty strength
- To offer industry-oriented online courses leading to certification or M. Tech. degree
- To increase the number of faculty members involved in sponsored research
- To significantly increase the number of industry driven projects
- To encourage and enhance development of intellectual property
- To significantly increase the number of patents
- To commercialize at least 5-10 research innovations annually

c. 15 years

- To become a leading Science and Technology University in India, within the top 10 in India and in the top 100 in the world.
- To become Centre of Excellence in post graduate education and research in all subject areas where courses are offered at present
- To be a leader in the development of transformational technologies that can make impact in the lives of people and to be known globally in this area.
- To become a think tank centre in Marine Sciences related issues in India
- To develop reputation as a creator of innovative technologies for societal needs using the knowledge and technical expertise developed by CUSAT
- To develop as a model campus that is green and sustainable in approach to usage of energy, water and recycling of materials
- To be a University that is sought for international collaborations

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With the introduction of the internet, the vast potential of ICT was realised by the University as early as 90's. The University implemented campus-wide optical fiber network with the financial help from the Govt. of the Netherlands. Internet connection was leased and round- the- clock internet was made available free of cost for the benefit of the academic community.

Courses in Online mode are initiated, taking advantage of the ICT infrastructure available. Credit earned through identified online courses is accepted in the University. Flipped class rooms are introduced where in students lead the classroom activities. CBCS based curriculum is introduced at P G level . Interdisciplinary electives are encouraged.

e- governance is being implemented in the University. This is an initial step towards a completely paper-free office and being environment- friendly. Flexi-timing is given to faculty members and office staff by installing biometric attendance system so as to enable them to contribute more effectively. Purchases are routed through the e-tendering system of the Govt. of Kerala to bring more transparency and speed.

Huge investment to the tune of Rupees 340 crores is in pipe line form the Govt of Kerala for improving research and academic infrastructure in the campus. This will enable establishment of state- of- the art, world class research environment in the campus and boost research output.
Principal investigators of projects are given full financial independence in running funded projects in an effort to reduce delay due to bureaucratic hurdles.

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In short, the University strives to become a leading Science and Technology University in India, within the top 10 in India and in the top 100 in the world and to be a leader in the development of transformational technologies that can make impact in the lives of people and to be known globally in this area.

A presentation on

CUSAT

By

Dr. J. Letha *

(Vice –Chancellor)

(*Presented by Prof. Sunil Narayanankutty, Controller of Examinations & Dean, Faculty of Technology)

Uniqueness

Uniqueness

Region-Specific Courses

- Ship Technology (40)
- Polymer Technology, (20)
- Marine (Geology& Geophysics, Biology),
- Industrial Fisheries (19)
- Sea Food Processing, (20)
- Meteorology (12)
- Marine Engineering (80)

Uniqueness

Specialised Courses

- Photonics (20)
- Safety and Fire Engineering (60)
- Intellectual Property Rights(10)
- Marine biotechnology (6)
- Instrumentation (28)
- Biopolymer Science (20)

Uniqueness

Uniqueness

- International collaborations (MHO, UKIERI, PASSA etc.)
- MoUs (30)
- Non – MoU (56)
- Overseas consultancy works (solar cells, thin films)
- National Level collaborations (DRDO, CIPET, NIIST)
- Courses for Indian Navy

Uniqueness

Pan- India Student Community

Seats	%
State Merit	50 (Keralites)
All- India Merit	40 (All India)
NRI	10 (NRI)

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Swachh Bharat Abhiyaan

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- Almost all the PG courses have the final semester completely for project works which they undertake in a place outside the state. This gives them opportunities to interact with the local culture, cuisine, people etc, in addition to upgrading their knowledge base.

Unnat Bhart Abhiyaan

- Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood (Kaushal) Kendra in the campus empower students by imparting entrepreneurship skills Enhance their employability

Unnat Bhart Abhiyaan

- Centre for Science in Society (C- SiS) is a science park in the campus that is open to general public and school children.
  - So far around 2 lakh students have been trained.
  - More than 2700 schools participated
  - ISRO pavilion is established in the park
  - It has been recognised by IEEE and ISRO

Unnat Bhart Abhiyaan

- Students are being trained in different disciplines under the 'Additional Skill Acquisition Programme' of the Govt. of Kerala to improve their employability.

For reducing the legal cases

- Complete transparency is maintained in admission process by implementing online test (Common Admission Test) and online allotment.
- Grievance redressal cells function in the Departments and in the University where students can sort out complaints.
- Active PTA functions in all the Departments which help the authority in handling difficult issues.

For reducing the legal cases

- Mentoring system is introduced in the early semesters so that the new comers feel at home and the ragging –related litigations are avoided.
- Active gender justice cell and equal opportunity cell functioning in the campus make sure that the small issues do not flare up to full-fledged and long drawn litigations in the court.

Promoting quality of teaching

- Encouraging young teachers to avail Faculty Development Programme (FDP) for pursuing higher studies in National Institutions.
-
- Student feedback system is functional in the campus. Feed back is taken once in every semester and the teachers are given the outcomes so as to enable them to correct themselves.

Promoting quality of teaching

- Collaborative research and faculty exchange is encouraged. Exposure to research in better equipped labs in the country and abroad will broaden the knowledge horizon of our teachers.
- Erudite programme in which Nobel Laureates visit and stay in the campus for a period and interact with scholars and deliver lectures is implemented in the campus with the support of the Govt.of Kerala. This is expected to motivate teachers and students

Future Plans

3 years

- To recruit top class faculty on a regular basis to fill up the existing positions as well as to augment the faculty strength
- To reward high achieving faculty members once in 5 years
- To promote personality development of CUSAT graduates for a smooth assimilation in a professional workforce

Future Plans

7 years

- To enhance the diversity and range of courses offered
- To significantly improve the faculty strength
- To offer industry-oriented online courses leading to certification or M. Tech. degree
- To increase the number of faculty members involved in sponsored research
- To significantly increase the number of industry driven projects

15 years

- To become a leading Science and Technology University in India, within the top 10 in India and in the top 100 in the world.
- To become Centre of Excellence in post graduate education and research in all subject areas where courses are offered at present
- To be a leader in the development of transformational technologies that can make impact in the lives of people and to be known globally in this area.

15 years

- To become a think tank centre in Marine Sciences related issues in India
- To develop reputation as a creator of innovative technologies for societal needs using the knowledge and technical expertise developed by CUSAT
- To develop as a model campus that is green and sustainable in approach to usage of energy, water and recycling of materials
- To be a University that is sought for international collaborations

15 years

- To encourage and enhance development of intellectual property
- To significantly increase the number of patents
- To commercialize at least 5-10 research innovations annually



Thank You

Madhya Pradesh Bhoj (Open) University, Bhopal

मध्यप्रदेश भोज (मुक्त) विश्वविद्यालय

Dedicated for the cause of Learning



Digitalization in M.P. Bhoj (Open) University, Bhopal

- All information regarding courses, fees structure and admission process on website.
- Online counseling .
- Online admission process – through MPOnline portal.
- Cashless Fees deposit system.
- Study Material available on website.
- Computerized result processing system.
- Online Application for Degree and Migration .

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
1	Health science	1. stanpan shishu ke liye amritpan. 2. sishu ke vradhi aur vikas 3. prati rakshand ke liye shit shrankla, 4. prati rakshand Part 1 5. prati rakshand part 2,	05
2	Culture & value	1. Sanskriti Aur Parampara, 2. Sanskriti Sabheyta Aur Dharm, 3. Enternal Values of Indian Culture, 4. Indian Conception of Culture Part- 1 5. Indian Conception of culture Part- 2 6. Anekta main Ekta.	06

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
3	Art & culture	1. Bhartiya kalaa ke shashvat Adhar , 2. Bhartiya kalaa ke mool Drashti Bhag-1 , 3. Bhartiya kalaa ke Mool Drashti Bhag-2, 4. Kalaa ke Bhartiya Avdharna , 5. Vigyan aur Sanskriti - Tatvik Swaroop , 6. Vigyan aur Sanskriti - prachin yug , 7. Vigyan aur Sanskriti- Adhunik yug , 8. Vishva Dharohar - Sanchi Part-1 , 9. Udaypur ke Etihasik Dharohar Part-1 , 10. Udaypur ke Etihasik Dharohar Part-2 , 11. Architectural and Sculptural Art of Khajuraho Temples Part-1 , 12. Architrctural and Sculptural Art of Khajuraho Temples part-2	12
4.	Special Education	1. Role of Special Education in Mental Retardation , 2. Role of Special Education in Visual Impairment , 3. Role of Special Education in Hearing Impairment, 4. Role of Special Education in Assessing and meeting human resource development need.	04

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
5.	Archaeology	1. Aadi Manav ke Madhya Pradesh main Sakchhya aur Sambhavanay- Ek Paricharcha	01
6.	History	1.Pracheen Bharat ka Etihas part- 1 2. Pracheen Bharat ka Etihas part -2 3.Dakshin Bhartiya Bhakti Aandolan. 4.Dakshin Bhartiya Mandir Pallav Aur Chol 5.Chhathvi panchavi shatabdi eesha poorv ki pristhabhoomi aur vaicharik kranti part 1 6.Boudh dharm ka udbhava aur pramukh shikshaye part 2 7.Etihas janane ke sadhan 8.Sindhu Sabhyata Ka mthatva 9.Samudra Gupta Ak Mahaan Vijeta 10.Chandra Gupta Dvitiya 11.Moury kala avm Sthpataya kala Part 1 12.Moury kala avm Sthpataya kala Part -2 13.America ka svatantrata Sangram 14.Audyogik Kranti 15.Gupt kala avm sthapatya Part 1 16.Gupt kala avm sthapatya Part 2 17.Azad Bharat Aur Rachna ki Gunjaesh 18.Ashok Ka Dhamma 19.Gupt Vansh ka Prashashan 20.Nepoliyan Bonapart Part – 1 21.Nepoliyan Bonapart Part – 2 22.Itali ka Akikaran Part-1 23.Itali ka Akikaran Part-2 24.Dakshin Itli Ka Akikaran 25.Poorvi Samsya Itli avm europiya rashtrom ki bhoomika 26.Europ me Adhunik yug 27.Europ me Punarjaagaran ki Pramukh visheshtayen 28. France Ki Kranti Ka Etihas Part-1 29.France Ki Kranti Ka Etihas Part-2	29

Video Programmes –

Available On Internet at Bhai Parshan Link

Sr. No.	Subject	Programme Name	Quantity
7	English Literature	1. William Shakespeare's Sonnets Part 1 2. William Shakespeare's Sonnets Part 2 3. John Milton part 1 The Poet and his poetry 4. John Milton part 2 How Soon HathTime 5. Alexandar Pope's Part 1 An Essay on Criticism 6. Alexandar Pope's Part 2 A Critical Appreciation 7. John Donn as a Poet 8. John Donn as a Metaphysical Poet 9. The Sonnet 10. Early Sonneteers 11. William Shakspeare's ' The Marchent Of Vanice ' Part 1 12. William Shakspeare's ' The Marchent Of Vanice ' Part 2 13. Classical and Romantic Concepts of Imagination Part -1 14. Classical and Romantic Concepts of Imagination Part -2 15. The French Revolution 16. The French revolution and the English Romantic Revival 17. Philosophy of Nature in Lines written A miles above Tintern Abbey 18. A Critical Appreciation of Frost at Midnight	18

Video Programmes –
Available On Internet at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
8	Hindi Literature	1. Madhya Kaleen Kavya part 1 2. Madhya Kaleen Kavya part 1 3. Swachchhand Kavyadhara me Ghananand Ka Sthan part 1 4. Swachchhand Kavyadhara me Ghananand Ka Sthan part -2 5. kahanikala avm kahani ka tatvik vivechan part-1 6. kahanikala avm kahani ka tatvik vivechan part-2 7. Aadhunik Meera Mahadevi Verma part 1 8. Aadhunik Meera Mahadevi Verma part 2 9. Arvacheen Hindi Kavya Ak Parichaya 10. Arvacheen Hindi Kavya ka Etihas 11 Arvacheen Hindi Kavya part 1 12 Arvacheen Hindi Kavya part 2 13 Chhayavadi Kavi Jay Shankar Prasad Part 1 14 Chhayavadi Kavi Jay Shankar Prasad Part 2 15 Gazalkar Dushyant Kumar Tyagi Part 1 16 Gazalkar Dushyant Kumar Tyagi Part 2 17 Krantikari Kavi Suryakant Tripathi Nirala Part 1 18 Krantikari Kavi Suryakant Tripathi Nirala Part 2 19 Prayogvad ke Janak Sachchidanand Heeranand Watsyayan Agyey part 1 20 Prayogvad ke Janak Sachchidanand Heeranand Watsyayan Agyey part 2 21 Subhadra Kumari Chauhan Part 1 22 Subhadra Kumari Chauhan Part 2 23 Kavyang, Kavya Ka Swaroop, Hetu avm Prayojan Part 1 24 Kavyang, Kavya Ka Swaroop, Hetu avm Prayojan Part 2	24

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
9	Foundation Course Hindi Language	1. Hindi ka shabd Bhandar,vakya rachana aur viram chinha part 1 2. Hindi ka shabd Bhandar,vakya rachana aur viram chinha part 2 3. Manak Hindi Bhasha part 1 4. Manak Hindi Bhasha part 2 5. patra Lekhan, Sar Lekhan Aur pallavan part 1 6. patra Lekhan, Sar Lekhan Aur pallavan part 2 7. Pandit Makhanlal Chaturvedi Bhasha Aur Vyakaran Part 1 8 Pandit Makhanlal Chaturvedi Bhasha Aur Vyakaran Part 2	08

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
10	Chemistry	1. Gaiseeya Avastha part 1 2. Gaiseeya Avastha part 2 3. Krantik Ghatnayen Avm Aanvik Veg 4. Krantik Ghatnayen Avm Gaison ka Dravan 5. Rasayanik Balgatiki part 1 6. Rasayanik Balgatiki part 2 7. Rasayanik Balgatiki part 3 8. Rasayanik Balgatiki part 4 9. Thos Avastha part 1 10. Thos Avastha part 2 11. Parmanu Sanrachana part 1 12. Parmanu Sanrachana part 2 13. Prakasheeya Samavayavata part 1 14. Prakasheeya Samavayavata part 2 15. Jyamiteeya Samavayavata 16. Sanroopi Samavayavata 17. Sanrachana Avm Aabandhan 18. Sankkarn 19. Samavayavata part 1 20. Samavayavata part 2	20

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
11	Management	1. Abhiprerna part 1 2. Abhiprerna part 2 3. Abhivritti part 1 4. Abhivritti part 2 5. Group Dynamics part 1 6. Group Dynamics part 2 7. Inter Group Behaviour 8. Managing Inter Personal Beheviour 9. Interpersonal Conflicts 10. Oraganizational Conflicts 11. Karya Tanav Prabhandhan 12. Tanav Ka Prabandh 13. Leadership part 1 14. Leadership part 2 15. Leadership part 3 16. Leadership part 4 17. Nirnay Lena Part 1 18. Nirnay Lena Part 2 19. Pratyakshikaran Part 1 20. Pratyakshikaran Part 2 21. Sampreshan Part 1 22. Sampreshan Part 2 23. Samsya Samadhan Part 1 24. Samsya Samadhan Part 2 25. Sangthan Vayvahaar Part 1 26. Sangthan Vayvahaar Part 2 27. Seekhana part 1 28. Seekhana part 2 29. Vyaktitva Part 1 30. Vyaktitva Part 2	30

Video Programmes –

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Sr. No.	Subject	Programme Name	Quantity
12	Zoology	1. Sycon ka praroopee Adhyayan part 1 2. Sycon ka praroopee Adhyayan part 2 3. Sycon me Prajanan Laingik Prajanan 4. Sycon me Prajanan Laingik Prajanan 5. Kasherukee Praniyo me adhyavaran ka Tulnatmak Adhyayan Part 1 6. Kasherukee Praniyo me adhyavaran ka Tulnatmak Adhyayan Part 2 7. Kasherukee Praniyo ke Mashtishk ka Tulnatmak Adhyayan Part 1 8. Kasherukee Praniyo ke Mashtishk ka Tulnatmak Adhyayan Part 2 9. Koshika Jaivikee Part 1 10. Koshika Jaivikee Part 2 11. Koshika Ka Sangathan Bahya Kendrakeeya Plasma Jhhilli Part 1 12. Koshika Ka Sangathan Bahya Kendrakeeya Plasma Jhhilli Part 2 13. Yougmakjanan Part 1 14. Yougmakjanan Part 2 15. Jaive Vividhataa 16. Jaive Prodhogiki ki moolbhooth Awdharna 17. Choje me Atirikta Bhuniya Jhhilliyan Part 1 18. Standharee Jantuo me Jaranuyaas Part 2 19. Kasherook Praniyo me Parisancharan Tantra Part 1 20. Kasherook Praniyo me Parisancharan Tantra Part 2	20

Video Programmes –

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Sr. No.	Subject	Programme Name	Quantity
12	Physics	1. Gati ke Niyam Tatha Nirdesh Fream Part 1 2. Gati ke Niyam Tatha Nirdesh Fream Part 2 3. Saral Aavart Gati Part 1 4. Aavrti Gati Part 2 5. Rekhiya Samveg Sanrakshan Ka Niyam 6. Keplar avm Neutan ke Niyam 7. Dolan Avm Drand Pind Kee Gati Part-1 8. Dolan Avm Drand Pind Kee Gati Part-2 9. Avmandit Avm Pranodit Avarti Dolitra Part-1 10. Avmandit Avm Pranodit Avarti Dolitra Part-2 11. Saral Aavart Gatiyo Ka Parsper Adhyaron avm Lissajoo Chitra 12. Lissajoo Chitro Ka Graphicya avm Prayogik Pradarshan 13. Chumbakiya Chetra Me Aaveshit Kando Kee Gati Part 1 14. Chumbakiya Chetra Me Aaveshit Kando Kee Gati Part 2 15. kethod Kiran Doulanlekhee 16. Rekhiya Tavrak 17. Pratyasthtaa Part 1 18. Paison Anoopat Part 2 19. Prashtha Tanav Part 1 20. Prashtha Tanav Part 2 21. Taral ke Prawaha Ka Avrirtata Sidhant 22. Barnolee Ka Pramey avm Upyogita 23. Vidut Dharaye Stathai tatha Prtyavarti Part 1 24. Vidut Dharaye Stathai tatha Prtyavarti Part 2 25 Phonons An Overview, 26 Nuclear Energy in developing India	26

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Sr. No.	Subject	Programme Name	Quantity
13	Sociology	1. Samiti 2. Sanstha 3. Samajshashtra Ka Parichay Part 1 4. Samajshashtra Ka Parichay Part 2 5. Samajik Samooh 6. Prathamik Samooh 7. Samaj wa Samuday Kee Avdharna Part 1 8. Samaj wa Samuday Kee Avdharna Part 2 9. Samajik Sanrachana Part 1 10. Samajik Sanrachana Part 2	10

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
14.	Social work	1. Bharat Me Samaj Sudhar Part 1 2. Bharat Me Samaj Sudhar Part 2 3. Gandhi Darshan Aur Samaj Karya Part 1 4. Gandhi Darshan Aur Samaj Karya Part 2 5. Sarvodhay Avm Samaj Karya Part 1 6. Sarvodhay Avm Samaj Karya Part 2 7. Samajshstra Ka Vishay Chhetra 8. Samaj ke Tatav 9. Sanskriti Aur Samaj Part 1 10. Sanskriti Aur Samaj Part 2 11. Vyaktitav Avm Samajikaran Part 1 12. Vyaktitav Avm Samajikaran Part 2 13. Samajik Sanrachana 14. Samajik Stariyakaran 15. Samajik Prakriya Part 1 16. Samajik Prakriya Part 2 17. Samooh Gatikee Part 1 18. Samooh Gatikee Part 2 19. Samooh Gatikee Part 3 20. Samooh Gatikee Part 4 21. Sangharsh, Sahayog, Samanvay tatha Netratav Part-1 22. Sangharsh, Sahayog, Samanvay tatha Netratav Part-2 23. Samooh Me Nirnay Prakriya Part 1 24. Samooh Me Nirnay Prakriya Part 2	24

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Sr. No.	Subject	Programme Name	Quantity
15.	Political Science	1. Samprabhuta Part 1 2. Samprabhuta Part 2 3. Rajya Kee Utpatti ke Sidhant Part 1 4. Rajya Kee Utpatti ke Sidhant Part 2 5. Vyavsthapika 6. Karypalika avm Nyaypalika 7. Samanta Avm Swatantrata Ke Adhikar 8. Anuchhed 23 Se 32 9. Bharat ke Rashtpati Kee Samanykaleen Shaktiyan 10. Bharat ke Rashtpati Kee Sankatkaleen Shaktiyan 11. Bharat kee Locksabha 12. Rajyasabha ke Sangthan, Karay avm Shaktiya	12

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
16.	Commerce	1. Vyavsayik Sanchar part-1 2. Vyavsayik Sanchar part-2 3. Vyavsayik Sanchar part-3 4. Vyavsayik Sanchar part-4 5. Vyavsayik Sanchar Ashabdik Sanchar 6. Maukhik Vyavsayik Sanchar 7. Sanchar Ki Dishayen Avm Prabhavee Sanchar part-1 8. Sanchar Ki Dishayen Avm Prabhavee Sanchar part-2 9. Aavyooh part-1 10. Aavyooh part-2	10

Video Programmes –

Available On University website at Bhoj Darshan Link

Sr. No.	Subject	Programme Name	Quantity
17.	Nutrition	1. Bhojan Ki Dainik Avasyaktayen part-1 2. Bhojan Ki Dainik Avasyaktayen part-2 3. Poshan Star ka Nirdharan tatha Mahilaon me Kuposhan Part-1 4. Poshan Star ka Nirdharan tatha Mahilaon me Kuposhan Part-2 5. Diabetes Mellitus- Karan aur Lakshan 6. Diabetes Mellitus- Nidaan, Upchar Aur Jatiltayen 7. Bhojya Padarth Sanrakshan 8. Bhojya Padarthon ka Sangrahan avm Paustikman 9. Hriday Rog part-1 10. Hriday Rog part-2 11. Raktheenta Tatha Ayodeen Ki Kami se hone wale Rog part-1 12. Raktheenta Tatha Ayodeen Ki Kami se hone wale Rog part-2 13. Motapa part-1 14. Motapa part-2 15. Micro Nutrients part-1 16. Micro Nutrients part-2 17. Macro Nutrients part-1 18. Macro Nutrients part-2	18.

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
1	Art & culture	1 शास्त्रीय कला के शाश्वत आधार 2. भारतीय कला की मूल दृष्टि भाग–1 3. शास्त्रीय कला की मूल दृष्टि भाग 2 4. कला की भारतीय अवधारणा 5. विश्व धरोहर–सांची 6. विज्ञान और संस्कृति का तात्विक स्वरूप 7 विज्ञान और संस्कृति का प्राचीन युग 8. विज्ञान और संस्कृति का आधुनिक युग 9. प्रागैतिहासिक काल से 700 ईस्वी तक मध्यप्रदेश की शिल्पकला 10. मध्यप्रदेश की पूर्व मध्यकालीन शिल्पकला 11. भारतीय कला में शिल्पियों का योगदान 12. प्राचीन काल में गोपाद्रि क्षेत्र की शिल्पकला 13. Architecture and Sculpturs of Khajuraho Temples Part - I 14. Architecture and Sculpturs of Khajuraho Temples Part - II 15. Artisan of Mouryan Age Part - I 16. **Artisan of Mouryan Age Part – II**	16

Audio Programmes –

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Sr. No.	Subject	Programme Name	Quantity
2.	Culture & Value	1. संस्कृति और परंपरा 2. संस्कृति सभ्यता और धर्म 3. अनेकता में एकता 4. Eternal Values of Indian Culture 5. Indian Conception of Culture Part – I 6. Indian Conception of Culture Part – II 7. संस्कृति और मूल्य मीमांसा 8. भारतीय सांस्कृतिक मूल्यों की परम्परा 9. भारतीय सनातन मूल्य और आचरण 10. साहित्य के आइने मे संस्कृति और मूल्य 11. संस्कृति और मूल्यों में परिवर्तन 12. Indian culture via its indigenous litrary tradition 13. Religions and Values 14. सांस्कृतिक और सामाजिक मूल्यों की चिन्ता 15. Free Speech as Value 16. Culture As Possibilities 17. गीता के मूल्य	24

Audio Programmes –

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Sr. No.	Subject	Programme Name	Quantity
3	Health Science	1. मॉ का दूध शिशु की आवश्यकता 2. यौन संचारित रोग 3. सावधानी ही बचाव है । 4. दस्त से बचाव 5. यात्रा बचपन से जवानी तक 6. परिवार कल्याण योजनाएं और सामग्री प्रबंधन 7. चिकित्सालय में प्रबंधन एवं प्रशासन प्रशिक्षण का महत्व 8. पोषण और स्वास्थ्य शिक्षा में डिप्लोमा कार्यक्रम 9. P. G. Diploma in Dietetics and Theraputic Nutrition	09
4	Indian Religion, Culture and Philosophy	1. दर्शन और विज्ञान 2. भारतीय दर्शन के प्रमुख तत्व 3. वैदिक धर्म और दर्शन भाग–1 4. वैदिक धर्म और दर्शन भाग–2 5. वैदिक धर्म और दर्शन भाग–3 6. वैदिक धर्म और दर्शन भाग–4 7. भारत में 6वीं 5वीं शताब्दी ईसा पूर्व में वैचारिक क्रांति 8. बौद्व धर्म का उद्भव 9. बौद्व धर्म के प्रमुख स्रोत और सिद्धांत	09

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5	Economics	1. नई आर्थिक नीतियाँ 2. आर्थिक प्रणाली, पूँजीवाद और समाजवाद 3. उपभोक्तावाद का तिलिस्म भाग–1 4. उपभोक्तावाद का तिलिस्म भाग–2 5.उपभोक्तावाद का तिलिस्म भाग–3 6. आर्थिक प्रणालियाँ, पूँजीवाद और साम्यवाद 7. सन 1991 के बाद भारत में आर्थिक सुधार 8. अर्थशास्त्र की प्रकृति क्षेत्र और विश्लेषण की पद्धतियॉ 10. व्यष्टि अर्थशास्त्र की मूल अवधारणाएं भाग – 1 11. व्यष्टि अर्थशास्त्र की मूल अवधारणाएं भाग – 2 12. भारतीय अर्थव्यवस्था की संरचना और प्रवृत्तियॉ 13. मॉग की लोच 14. भारत के केन्द्रीय बजट की अवधारणा और समीक्षा 15. परिवर्तनशील अनुपातों का नियम और पैमाने का प्रतिफल 16. बैंकिंग और साखतंत्र 17. भारत की राजकोषीय व्यवस्था 18. बाजारों के प्रकार एवं पूर्ण प्रतियोगिता में मूल्य निर्धारण 19. वितरण का सीमांत उत्पादकता का सिद्धांत 20. भारत की आर्थिक और समाजिक समस्याएं	20

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Sr. No.	Subject	Programme Name	Quantity
6.	Physics	1. तरल पदार्थों के गुण, तरल यांत्रिकी एवं आपेक्षिता 2. Nuclear Energy To Rural Development 3. प्रत्यास्थता 4. पृष्ठ तनाव 5. श्यानता	05
7.	Zoology	1. कशेरूकी प्राणियों का आर्थिक महत्व 2. सूक्ष्म जीवों का मानव जीवन में योगदान 3. मधुमक्खी–एक सामुदायिक जीव 4. जीन की आधुनिक परिकल्पना और जिनेटिक कोड	04
8.	Botany	1. प्रोकेरियोटस, एल्गी एवं फंजाई 2. जनजातियों द्वारा पौधें का चिकित्सकीय उपयोग	02

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
9.	History	1. भारत पर ब्रिटिश आधिपत्य तथा आधुनिक भारत में सामाजिक एवं आर्थिक विकास 2. स्वाधीनता के संघर्ष में आजाद भारत की परिकल्पना 3. आजादी के बाद भविष्योन्मुखी भारत का विकास और चुनौतियां 4 प्राचीन और सल्तनत कालीन इतिहास 5. दक्षिण भारतीय भक्ति आन्दोलन 6. संगीत और चित्रकला–एक परिचय 7. प्राचीन भारत में चिकित्सा शिक्षा 8. प्राचीन भारत में नगर प्रशासन 9. कुमाऊँ क्षेत्र के प्राचीन इतिहास की एक झलक 10. अमेरिका का स्वतंत्रता संग्राम 11. यूरोप की औद्योगिक क्रान्ति 12. इटली का एकीकरण 13. दक्षिण इटली का एकीकरण 14. पूर्वी समस्या: इटली एवं यूरोपीय राष्ट्रों की भूमिका 15. समुद्रगुप्त : एक महान विजेता 16. चन्द्रगुप्त : द्वित्तीय 17. फ्रॉस की क्रान्ति का इतिहास भाग–एक 18. फ्रॉस की क्रान्ति का इतिहास भाग–दो 19. नेपोलियन बोनापार्ट भाग–एक 20. नेपोलियन बोनापार्ट भाग–दो	20

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
10.	History & Archaeology	1. मध्यप्रदेश में पाषाणकालीन संस्कृतियाँ 2. मध्यप्रदेश की ताम्रपाषाण कालीन सभ्यताएँ 3. पुरातत्व परिचय	03
11.	Women Study	1. Women Empowerment and Promotion of Self- Help Groups 2. Women Empowerment and Promotion of Self- Help Groups - Keynote Address by Prof. H. P. Dikshit 3. Genesis and Development of programme-Empowering Women Through Promotion of self-help Group 4. Role of Distance Education In Women Empowerment 5. मध्य प्रदेश में महिला सशक्तिकरण और स्व–सहायता समूहों का उन्नयन	05
12	Culture	1. Tribal situation in India 2. Development, deprivation continuty and change in southwestern tribes of Madhya Prasesh. 3. Ethnographic evidences of Indian communities involved in early ocean trade. 4. बस्तर क्षेत्र में आदिवासियों की सामाजिक स्थिति 5. Tranformation of tribes and emerging issues of development 6. भारतीय संस्कृति और पर्यावरण	06

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
13.	Management	1. अभिप्रेरणा और व्यक्तित्व विकास 2. अभिप्रेरण का प्रभाव 3. विपणन प्रबंधन की मूलभूत अवधारणाएं 4. अभिप्रेरणा भाग–1 5. अभिप्रेरणा भाग–2 6. अभिवृत्ति भाग–एक 7. अभिवृत्ति भाग–दो 8. प्रत्यक्षीकरण भाग–एक 9. प्रत्यक्षीकरण भाग–दो 10. सम्प्रेषण	10
14.	Environnent Science	1- **Forest management issues for sustainable development** 2. **जैव मण्डल** 3. **प्राकृतिक संसाधन–वन** 4. **जल संसाधन** 5. ओजोन परत का क्षरण 6. **खनिज संसाधन** 7. भारतीय संस्कृति और पर्यावरण 8. **जैव मण्डल के आधार संरचना और कार्य**	08

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
15.	Social Work	1. भारत में स्वैच्छिक संगठन 2. समाज कल्याण की अवधारणा 3. भारत में समाज कल्याण की विचारधाराएं और कार्यक्रम **4.** वृत्तिक समाजकार्य 5. वृत्तिक समाज कार्य का दर्शन भाग– एक 6. वृत्तिक समाज कार्य का दर्शन भाग– दो 7. वृत्तिक समाज कार्य : एक व्यवसाय 8. वृत्तिक समाज कार्य की विधियाँ 9. समाज कार्य के क्षेत्र 10. भारत में स्वैच्छिक समाज कार्य 11. भारत में समाजकार्य का प्रशिक्षण 12. समुदाय की अवधारणा 13. भारत में नगरीय, ग्रामीण और आदिवासी समुदाय 14. सामुदायिक संगठन के सिद्धांत 15. सामुदायिक संगठन – वृत्तिक समाजकार्य की विधि 16. सामुदायिक संगठन की प्रक्रिया में शोध और नियोजन 17. सामुदायिक संगठन में सामूहिक चिंतन तथा शिक्षा 18. सामुदायिक संगठन में अभिलेखन और मूल्यांकन 19. सामुदायिक संगठन में समन्वय 20. सामुदायिक संगठन में कार्यकर्ता की भूमिका 21. सामुदायिक संगठन में नेतृत्व 22. इंग्लैण्ड में समाजकार्य का उदभव और विकास 23. समाजिक संगठन और सामुदायिक विकास 24. अमेरिका मे समाजकार्य का उदगम और विकास	24

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
16	**Education**	1. बौद्ध द र्शन मे निहित ि क्षा 2. शिक्षा को समझना 3. शिक्षा की नई दिशा 4. प्राचीन और मध्य युगीन भारत में शिक्षा 5. स्वतंत्रता पूर्व भारत में शिक्षा 6. स्वतंत्रता के बाद भारत में शिक्षा 7. समाज को समझना 8. बी. एड. पाठ्यक्रम 9. आज का समाज 10. MPBOU में एम. एड. डिग्री पाठ्यक्रम 11. वेदों और उपनिषदों में निहित शैक्षिक दृष्टिकोण 12. प्रमुख भारतीय शिक्षाविद और उनका शिक्षा दर्शन 13. जैन दर्शन और शिक्षा 14. महात्मागाँधी का शिक्षा दर्शन 15. रवीन्द्रनाथ टैगोर का शिक्षा दर्शन	15
17.	**Tourism**	1. एयर फेयर और टिकटिंग कार्यक्रम की उपयोगिता और संभावनाएँ	01
18.	**Heritage Management**	1. धरोहर प्रबंधन पाठ्यक्रम की आवश्यकता और संभावनाएँ	01
19.	**Accounting**	1. प्रारम्भिक वित्तीय लेखांकन	01

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
20.	Sociology	1. स्वस्थ समाज के लिए समाजशास्त्र 2. समाजशास्त्र की मूलभूत अवधारणा– 'समाज' 3. समाजशास्त्र की मूलभूत अवधारणा– 'समुदाय' 4. समाजशास्त्र की मूलभूत अवधारणा– 'संस्था' 5. समाजशास्त्र की मूलभूत अवधारणा– 'समिति' 6. समाजशास्त्र की मूलभूत अवधारणा– 'समूह' 7. समाजशास्त्र की मूलभूत अवधारणा– प्रस्थिति 8. समाज ाास्त्र की मूलभूत अवधारणा– भूमिका 9. समाज ाास्त्र की मूलभूत अवधारणा– सामाजिक संरचना 10. मार्क्स का सामाजिक परिवर्तन का सिद्धात 11. कार्ल मार्क्स का द्वन्दात्मक भौतिकवाद का सिद्धात 12. कार्ल मार्क्स का वर्ग संघर्ष और अतिरिक्त मूल्य का सिद्धान्त 13. इमाईल दुर्खीम का आत्महत्या का सिद्धान्त 14. परिवार – एक सामाजिक संस्था 15. नातेदारी 16. इमाईल दुर्खीम का धर्म का सिद्धान्त 17. धर्म:एक सामाजिक संस्था 18. स्माज ाास्त्र में संस्कृति की अवधारणा 19. समाजीकरण की प्रक्रिया 20. समाजिक नियंत्रण 21. इमाईल दुर्खीम का समाज में श्रम विभाजन का	21

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
21.	Hindi Language	1. हिन्दी भाषा और व्याकरण 2. मध्यप्रदे ा का सांस्कृतिक वैभव भाग – एक 3. मध्यप्रदे ा का सांस्कृतिक वैभव भाग – दो 4. भारतीय संस्कृति का विश्व पर प्रभाव भाग – एक 5. भारतीय संस्कृति का विश्व पर प्रभाव भाग – दो 6. हिन्दी भाषा और राष्ट्रीय अस्मिता	06
22.	Special Education	1. A Brief Overview of Education for Student with Disabilities in the United State of America 2. Transitioning students with visual impairment using strength based planning. Part-1 3. Transitioning students with visual impairment using strength based planning. Part-2 4. Teaching Compensatory Skills to the Student with visual impairment Part-1 5. Teaching Compensatory Skills to the Student with visual impairment Part-2 6. Educating parents of childrens with visual impairment 7. Educating parents of childrens with blindness 0. Educating parents of childrens with deaf-blindness 9. Community based rehabilitation for the persons with visual impairment 10. Centre based rehabilitation for the persons with visual impairment	10

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
23.	English Language	1. Formal letters : Formate and Context	01
24.	Hindi Sahitya	1. मध्यकालीन काव्य भाग–एक 2. मध्यकालीन काव्य भाग–दो 3. भक्तिकाल : एक नया चिंतन 4. छायावादी कवि : जयशंकर प्रसाद भाग –एक 5. छायावादी कवि : जयशंकर प्रसाद भाग –दो 6. आधुनिक मीरा : महादेवी वर्मा भाग – एक 7. आधुनिक मीरा : महादेवी वर्मा भाग – दो 8. राष्ट्रकवि : मैथिलीशरण गुप्त भाग – एक 9. राष्ट्रकवि : मैथिलीशरण गुप्त भाग – दो 10. अर्वाचीन हिन्दी काव्य: एक परिचय 11. आधुनिक हिन्दी काव्य का इतिहास 12. राष्ट्रीय भावों की कवियत्री– सुभद्रा कुमारी चौहान भाग – एक 13. राष्ट्रीय भावों की कवियत्री– सुभद्रा कुमारी चौहान भाग – दो 14. क्रान्तिकारी कवि : सूर्यकान्त त्रिपाठी निराला भाग – एक 15. क्रान्तिकारी कवि : सूर्यकान्त त्रिपाठी निराला भाग –दो	15

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
25	English Literature	1. John Milton : The Poet and His Poems 2. John Milton : "How Soon Hath Time" 3. JOHN DONNE : AS A POET 4. JOHN DONNE : AS A METAPHYSICAL POET 5. The Sonnet 6. The Early Sonnetteers 7. WILLIUM SHAKESPEARE'S SONNETS Part-1 8. WILLIUM SHAKESPEARE'S SONNETS Part-2 9. WILLIUM SHAKESPEARE'S "THE MERCHANT OF VANICE" Part-1 10. WILLIUM SHAKESPEARE'S "THE MERCHANT OF VANICE" Part-2 11. CLASSICAL AND ROMENTIC CONCEPTS OF IMAGINATION Part-1 12. CLASSICAL AND ROMENTIC CONCEPTS OF IMAGINATION Part-2 13. Blake : The Poet 14. Tiger Tiger Burning Bright. 15. Wordsworth and His Poetry 16. Tintern Abbey 17. Growth and Development of Victorian Novel Part-1 18. Growth and Development of Victorian Novel Part-2 19. Keats Ode to Autumn	19

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
26.	Political Science	1. राज्य की उत्पत्ति के सिद्धांत भाग – एक 2. राज्य की उत्पत्ति के सिद्धांत भाग – दो 3. भारत की लोक सभा का संगठन कार्य और भाक्तियॉ 4. भारत की राज्य सभा का संगठन, कार्य और भाक्तियॉ 5. भारत के राष्ट्रपति की सामान्यकालीन भाक्तियॉ 6. भारत के राष्ट्रपति की संकटकालीन भाक्तियॉ 7. मौलिक अधिकार भाग – एक 8. मौलिक अधिकार भाग – दो	08
27	LAW	1- Judicial Activism (न्यायिक सक्रियता)भाग–एक 2- Judicial Activism (न्यायिक सक्रियता)भाग–दो	02

Audio Programmes –

Available On University Website at Bhoj vani Link

Sr. No.	Subject	Programme Name	Quantity
26.	Political Science	1. राज्य की उत्पत्ति के सिद्धांत भाग – एक 2. राज्य की उत्पत्ति के सिद्धांत भाग – दो 3. भारत की लोक सभा का संगठन कार्य और भाक्तियॉ 4. भारत की राज्य सभा का संगठन, कार्य और भाक्तियॉ 5. भारत के राष्ट्रपति की सामान्यकालीन भाक्तियॉ 6. भारत के राष्ट्रपति की संकटकालीन भाक्तियॉ 7. मौलिक अधिकार भाग – एक 8. मौलिक अधिकार भाग – दो	08
27	LAW	1- Judicial Activism (न्यायिक सक्रियता)भाग–एक 2- Judicial Activism (न्यायिक सक्रियता)भाग–दो	02

Digitization of Self Learning Material (SLM)

Sr.No.	Programme Name
1.	M.Sc - Mathamatices (Previous)
2.	M.Sc – Mathamatices (Final)
3.	M.Sc- Chemistry (Previous)
4.	M.Sc- Chemistry (Final)
5.	M.Sc- Physics (Previous)
6.	M.Sc- Physics (Final)
7.	M.A.- Economic (Previous)
8.	M.A.- Economic (Final)
9.	M.A.- Sociology (Final)
10.	MBA-1st Year
11.	MCA-1st Year

Digitization of Self Learning Material (SLM)

Sr.No.	Programme Name
11.	MCA-1st Year
12.	M.A.- English (Final)
13.	M.A.- Geography (Previous)
14.	M.A.- Geography (Final)
15.	M.A.-Sanskrit (Previous)
16.	M.A.-Sanskrit (Final)
17.	M.A.-History (Previous)
18.	M.A.-History (Final)
19.	Foundation Course (Special Education)
20.	L.L.M (Previous)
21.	L.L.M (Final)
22.	BSW
23.	B.Lis.
24.	M.Lis.

Future Plan

- Digitalization of Library System
  Establishment of E-Library
- Implementation of National Academic Depository (NAD)

Thank You

National Convention on Digital initiative for Higher Education – Rani Durgavati Vishwavidyalaya, Jabalpur

Prof. Kapil Deo Mishra
Vice Chancellor, Rani Durgavati Vishwavidyalaya, Jabalpur

Innovative methods for enhancing teaching-learning process:

- Online admission of students
- Online enrollment of regular and private students
- Online filling of examination forms
- Online generation of admit cards
- Online mark entries
- Online applications for provisional degree
- Online provision of migration certificates
- Provision of duplicate mark sheets, re-totaling etc.

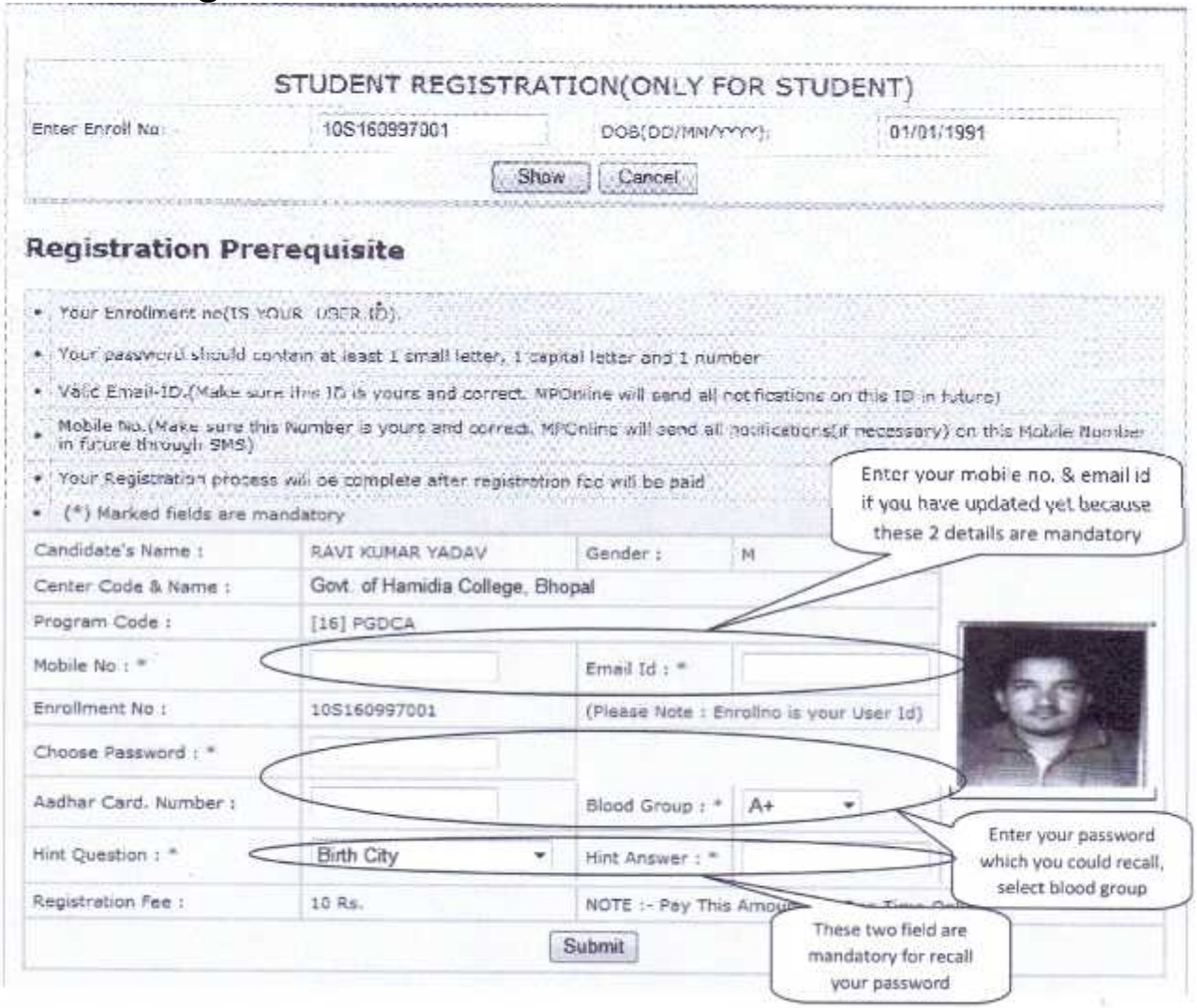
Innovative methods for enhancing teaching-learning process:

- **Smart classes and digital material**
- **Project/ field work presentations with continuous evaluation and improvement**
- **Inflibnet a digital library used by students**
- **Full fledged digital library from RUSA grant**
- **High speed broadband services and Wi-Fi facility is freely available**
- **Central library completely digitalized**
- **Bar-coding and proper cataloguing of volumes**

Innovative in improving the administration of institution:

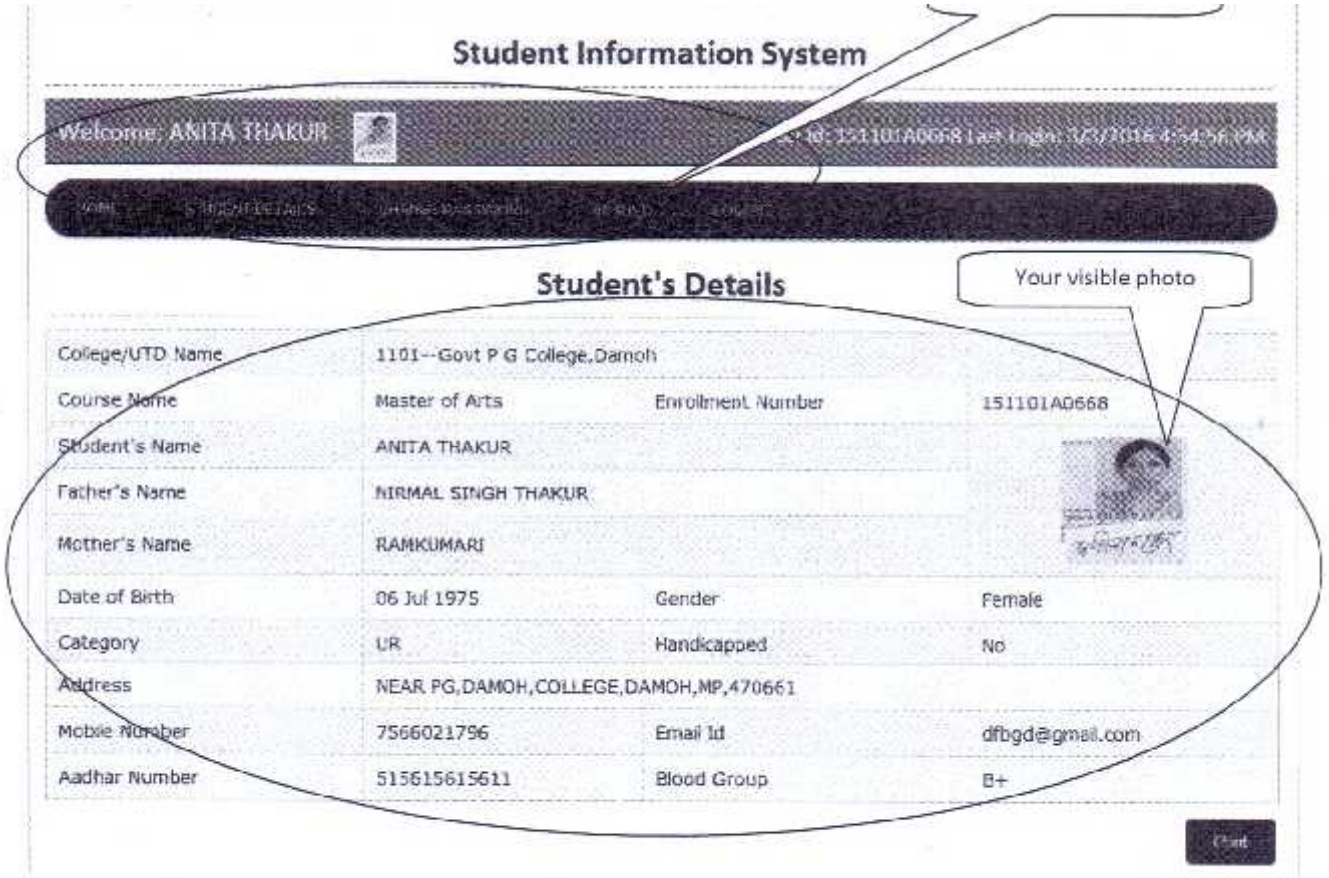
- **IQAC to assure the quality of academia and administration**
- **Student Information System – on a digitalized platform**
- **G2G facility to all affiliated colleges/ UTDs and Examination centers**
- **Group SMS facility to students for all information**
- **All payments including salary, fees, affiliation charges, remunerations, other payments by online banking**
- **Efficient University Website hosted by CMS Website Development Agency**
- **The e-governance of Universities at State Govt. level in progress**

A screenshot showing the Student Information System - How online registration is done



All the registered information will be send to mobile/email id for security purpose. Check your mail after creation you user id & password. The registration process will be completed when he will pay **ONE TIME** portal fee Rs.20/- only.

A screenshot showing the Student Information System – the information content

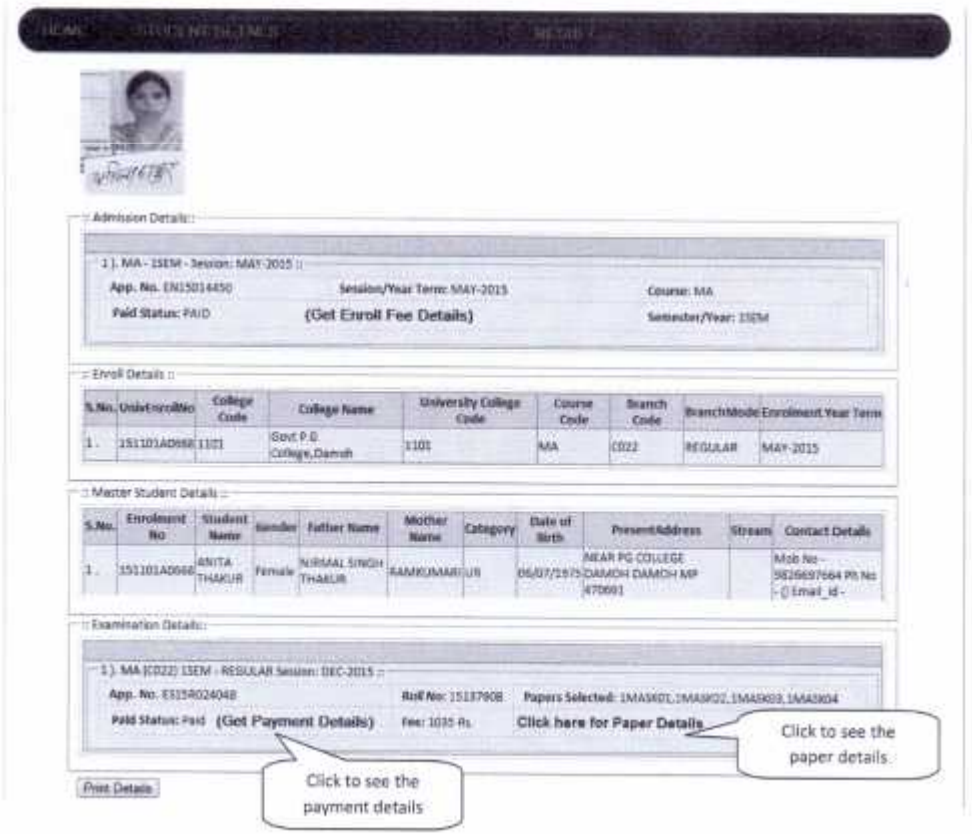


You cannot change any master data which is belongs to eligibility. Only you can view, if you want change any data then follow the rules & regulation of the College/ University.

A screenshot showing the Student Information System – Links to details of information



View all Student details as below:



Measures for promoting research:

- Inflibnet and other portals of online digital library freely available
- Digital library being constructed by using the RUSA grant
- SPSS, Mathematica, Metlab, Adobe & Online plagiarism checker software used by researchers
- Publishing high quality research using online portals
- Reviewing of journals by faculty members using digital platforms
- Online theses submission for digital collection and submission to Shodhganga
- Periodic assessment of quality of research publications using standard online rating sites

•**Various University Teaching Departments and Centers are constantly aspiring for digitization of the documents, reports, projects, documentaries etc. related to the socio-economic extension activities. Shortly the University will be in a position to make digital records of all such activities.**

•**Formal digital education portal is in process of building and proper training to the students and staff shall be provided for 24 x 7 interaction and exchange of information through this portal. Otherwise all social sites are used for constant interaction between the faculty and students.**

Rani Durgavati Vishwavidyalaya, Jabalpur (M.P.)

National Convention on Digital initiative for Higher Education

8th – 10th July 2017 at Vigyan Bhawan, New Delhi

In order to transform the ecosystem of public services through the use of information technology, the Government of India has launched the "Digital India programme" with a vision to transform India into a digitally empowered society and knowledge economy. Universities are public services centers and with this aim Rani Durgavati Vishwavidyalaya, Jabalpur has taken several initiatives to enable e-governance and digitalize day-to-day processes. Several innovations and best practices have already been adopted in diverse sectors of the University. Teaching-learning is the most integral component of University deliverables and here we have made progress in online processing of the entire examination process including the Choice based credit system. It is noteworthy that we now have platform for online admission of students, online enrollment of regular and private students, online filling of examination forms, online generation of admit cards, online mark entries, online applications for provisional degree, online provision of migration certificates, duplicate marksheets, retotaling etc. A Student Information System (SIS) is working on a digitalized platform. Group SMS is an effective mean to pass on information simultaneous to a large group of students; and is being regularly used. The payment of all kinds of fee including examination related fee is now through digital mode. The forms for various entrance tests for diverse programmes are now conducted through university portal by online mode. G2G facility has been installed to all affiliated colleges/ UTDs/ University Exam Section to enable online viewing and reciprocating of the data with a central admin. CMS Website development Agency is methodically upgrading the University website which houses a vast number of information for the public domain. Certain links are being created for interactive communication between university administration and other stakeholders. IQAC a nodal center of the university involved in quality assurance has made all its documentation online. In terms of teaching innovations, certain milestones are introduction of smart classes and digital material for improvement of knowledge. Students are encouraged to make project/ field work presentations which is evaluated and improvises. Inflibnet is a digital library used by several students using appropriate desktop facility. We are in process of creating a full

fledged digital library from RUSA grant. Research scholars are required to maintain personal digital collection of relevant research material and even access to certain virtual libraries through their supervisors. Online publication is encouraged and if necessity arises a number of software viz., SPSS, Mathematica, Metlab, Adobe and online plagiarism checks are being used by students. Online peer review is a common practice of faculty members for contribution to overall improvement of academia. High speed broadband services and Wi-Fi facility is freely available to the students. Scholars compulsorily deposit digital forms of their thesis for our library and for submission to the digital repository, Shodhganga. The salary, various fees, reimbursements, college affiliation deposits, and other kinds of payments are done through online banking. The central library has been completely digitalized and all the volumes in the campus are being bar-coded accordingly catalogued. The codes are used for issuing and return of the reading material. The e-governance of universities is in process of uniform implementation at the State Government level.

Initiatives taken by Shivaji University in the field of Digitization

Prof. (Dr.) Devanand B. Shinde
Vice Chancellor
Shivaji University, Kolhapur

GENERAL ADMINISTRATION:

1. The campus has been developed with an excellent IT infrastructure. All the post-graduate Departments have been provided with internet connectivity through fiber optics backbone.
2. Agendas of authorities and bodies (Academic Council, Faculty, Management council, Finance and Accounts committee, Senate etc.) are sent to the members through email only and meetings are conducted using IT facilities , which has saved significant volume of printing papers and stationery, postage etc.
3. An online Student's' feedback system has been developed and students have been using it to give their feedback about teaching, learning, evaluation, administration and service units.
4. Sales of University published books are made available online.
5. Every Department is equipped with smart classroom.
6. During organizing workshops/seminars/conferences, university has invited participation application through digital means by using online form and payment gate way, for the purpose of registration.
7. University has issued/generated certificates in digital form to the participants and created best practice towards a paperless office.
8. University has used online examination system at post-graduate level for the purpose of admission and brought transparency in admission procedure.
9. In various recruitment processes at University level, we have used online application, submission form instead of taking hard copy in number of manners.
10. University creates web page/mobile app for various events to publish information/collect information or for communication.
11. University has its own e-magazine viz. Shivsandesh and also a blog with the same name to give information of day to day happenings on campus along with the photographs. Especially media is benefitted with this unique feature. Shivaji University is the first to launch such kind of blog.
12. University uses email messaging system for communication with various stakeholders at different levels including affiliated colleges, institutions etc.
13. University publishes notices, tenders in digital form on university website.

ACCOUNTS REFORMS:

1. Finance and accounts system of the University is fully computerized and all the financial transactions are taking place online through campus network.
2. All the payments from the students are accepted online as well as payments are made to the parties through RTGS.
3. Budget Module : Online Budget preparation and Re-appropriation from Budget entry by all departments, Committee Recommendations and Approval by various authorities

4. Employee Corner: Personal Information, Payslip, Income Tax saving details, 16A Form of employee made available in digital format.
5. Online Seminar, Workshop Registration with payment gateway creating login and issuing Certificates with digital signature.
6. All fees received from colleges and students by NEFT, Cheques, Bank Deposit, and by POS at University Counters.
7. 100% payment of TA/DA made by online transfer
8. 100 % enrolment for Election is online and received by Payment Gateway.

PROLIFERATION OF INTERNET CONNECTIVITY:

1. In order to provide 24 x 7 internet connectivity, the campus has been provided with Wi-fi facility. Access points have been provided at Library, Hostels, Post-graduate Departments and administrative building.
2. Campus-wide computer network of around 3300+ nodes has been established in the University campus. 22 building in the campus are connected using Fiber optic backbone. At present 36 Academic departments as well as Main Administrative Building are connected. Approx. 23 km. OFC cable laid down underground to connect all Departments/Sections to Data Centre at Main Administrative Building. Campus Networking under NMEICT project of MHRD, New Delhi has been completed.
3. A 20 Mbps and 100 Mbps leased line is procured from local BSNL. Firewall equipment make 'WATCH GUARD 2050A' is used for security of the network. Now total 120 Mbps lease line is being shared for various activities. In addition 1 Gbps leased line has been received via BSNL under **National Knowledge Network (NKN)** Project.
4. University is having www.unishivaji.ac.in website which is being maintained by Website Cell of the University. Presently more than 300 pages of exhaustive information are available. Website Cell is hosting all examination results, circulars, syllabi, information about various functions, tenders, appointments and admission forms, Shiv-sandesh (a monthly e-bulletin) etc. time-to-time. Also Website Cell has assisted to University administration by using various IT techniques.
5. Dedicated mobile Apps are developed for specific tasks.
6. Campus is protected with Antivirus console by entering into campus agreement with Quick Heal total security.
7. Students as well as employee attendance is through Bio-metric Machine.
8. IP/CCTV camera system is used for campus surveillance.
9. Laptops are provided to all University faculty members and Class-I officers.
10. Use of MOODLE as teaching learning AID.
11. All the entrance examinations held by University are either conducted ONLINE or using OMR. Examination of Computer Science and Engineering course is also conducted ONLINE.
12. Use of Video Conferencing (make Life Size) to conduct meeting as well as training.
13. WiFi zones are created in every academic Department, hostel,guest house, Library etc. 45 Access points (Make RUCKUS) under two W-LAN controllers are installed.
14. Official e-mail facility is provided to Faculty, Administrative staff and Research students.

15. State of Art data centre to cater the IT needs of entire campus. Equipped with Virtual environment (VMWare), Blade/Rack mountable servers, SAN/Unified storage, HP Core Switch, HP/Cisco Routers.

LIBRARY REFORMS:

1. Library Internet Laboratory has been established, which is kept open from 7.00 a.m. to 11.00 p.m. (daily 16 hours). Now total 80 nodes with internet connectivity are available to students and faculty. At present research scholars and postgraduate are using this lab for their study purpose. In a day approx. 350 to 400 students are taking benefit of this lab. Presently CD writing and printing facility has been provided to all users.
2. Digitization of Ph. D. Thesis from the establishment of the University till date has been completed and all Thesis are available in the soft copy form.
3. Access to a good number of E-journals has been provided through INFLIBNET.
4. E-books have been procured and soft copies of the same have been made available for all the faculty members and students.
5. Teaching faculty is encouraged to use internet resources for teaching, which includes resources available at NPTEL site.

EXAMINATION REFORMS:

1. Digitization of the mark sheet ledgers has been completed and all such ledgers are available in the soft copy form. All the results are published online and soft copy of the marks sheet is made available to the students.
2. Question papers for term end examinations are sent through secure email and all the affiliated colleges and PG Departments are covered under this practice.
3. A digital staff module has been developed through which the updated data of every teacher and examiner has been collected and the Examiners' appointment is done through this system.
4. The appointment letters are served through e-mails.
5. The Secured Remote Paper Delivery (SRPD) system is implemented for 28 courses and over 3500 exam papers distribution is done successfully. This system has been tested successfully for B.Voc. courses also.
6. The convocation intimation is sent through emails and sms instead of traditional letters.
7. Currently the university is working on the scanning of answer sheets and make them available through e-mode. (M. Pharm. and B. Pharm.)
8. Separate software is developed for keeping record of answer sheets and other supplementary material.
9. As per the directions from MHRD during Digital India mission, the University has signed MoU with CSDL, with which the result sheets, degree certificates can made available through D-Mat system. University has started its implementation with B.Tech. department.

DIGITIZATION INITIATIVES AT STUDENTS' FACILITY CENTRE (SFC) AND CENTRE FOR DISTANCE EDUCATION (CDE):

1. Students Facilitation Centre (SFC) is an asset to the University. Student's examination data from the Academic year 2001-02 has been digitalized and SFC is issuing the following certificates in a same day (except Transcript) on receipt of application for same.

SN	Description	Time of issue	Number per year
1	Mark-sheet	1 day	14423
2	Medium of Instructions	1 day	148
3	Transfer Certificate / Migration Certificate	1 day	7299
4	Passing Certificate	1 day	1528
5	Verification of Documents	1 day	4152
6	Attestation of Documents	1 day	1217
7	Transcripts	8 days	531

2. Individual student admission of Centre for Distance Education (CDE) went online since the Academic Year 2013-14 and now its admissions are 100% online. Due to digitalization, an effort of students to fill the Semester Examination twice in a year has been reduced to once in a year for both semesters. The same data is utilised for examination and result purpose.

3. The inventory control system of Self Instructional Material (SIM) worth 4 Cr. is digitalised.

AWARENESS AND OTHER ACTIVITIES:

1. Awareness campaign for digital India was organized by the affiliated colleges. One of the affiliated colleges has been appreciated by the HRD Ministry for its significant contribution in this field.
2. University has organized campaign for voter registration along with District Collector to educate and motivate the students for voter registration and vote purpose.
3. Registration of Graduate Voters through online and fees collection through payment gateway.



A seession on cashless transactions in progress

4. Students' help a Village to go Cashless through Digital Empowerment under National Service Scheme Initiative:-

Varanage is a Village in Karveer Taluka in Kolhapur District of Maharashtra State. It belongs to south west Maharashtra region. It is located 10 KM towards west from Shivaji University, Kolhapur. The village population is around 25,000.

The students of the Department of Electronics were set out to transform Varanage into model cashless village by sensitizing villagers on cashless transactions post demonetization. Students of the Electronics department of the Shivaji University, Kolhapur (SUK) had organised a week long digital literacy campaign at the Varange village earlier during a seven day campaign January 16-22, 2017. This campaign was named as "Digital Saksharata Shibir', one that defined a paradigm shift for the villagers of Varange.



Digital Literacy Campaign

During the campaign, the villagers were given lessons on the cashless transactions, digital lockers and e-commerce. Around 600 families actively took part in the programme. As many as 450 families digital locker were opened and every user of the digital locker was provided with a user ID and password. to the cashless transactions. The campaign got a good response and the villagers appreciated the efforts taken by the students.

The seven day campaign was leaded by 50 students of the Department of electronics of Shivaji University, Kolhapur and was jointly operated under the National Service Scheme initiative. Not only the students enlighten the people about going cashless, but they also held a number of activities as a part of the event. The digital literacy campaign was a one of its kind initiative by the Shivaji University students in the rural area.

DIGITIZATION OF MANUSCRIPTS

Manuscripts and rare books are an important part of a university collection. Many research students derive intellectual benefits from such collections. Such collection reflect institute's reading culture and ability to support research work.

Barr. Balasaheb Khardekar Library of Shivaji University, Kolhapur (Maharashtra) is having one of the largest collections of manuscripts and rare books in Sanskrit, modi and other Indian Languages. These manuscripts and rare books contain the traditional Indian knowledge in the fields of arts, science and literature, medicines, philosophy, social sciences, grammar and ayurveda.

Over the period of time, Archival cell of our university is one of the important sections of the library for researchers. Most of the collections of this cell is donated by various eminent scholars and personalities. It consists of about 50,000+ rare books, 10,000+ manuscripts, rare periodicals, old newspapers, etc. The rare books

from 1716 to 1950 A.D. and more than 50 special collections are available in archival section.

Shahu Research Centre at Shivaji University is established in 1970.It has a collection of rare newspapers, rare correspondence (Letters) , modi documents , special collection of Karveer Gazette, rare books. Total collection of this centre consists of 2750rare books, 800 + historical photos.

National Mission for Manuscripts (NMM) has initiated Manuscript Resource Centre at the four regions of nation. It is set up by the Government of India under the Ministry of Culture, New Delhi. The mission has the mandate of identifying, documenting, protecting and making accessible the manuscript heritage of India. Shivaji University Library is having one of the MRC of NMM. Under this MRC till date, above 10000+ manuscripts in Modi and Sanskrit language are documented and hosted on NMM website.

SETTING-UP THE NATIONAL ACADEMIC DEPOSITARY (NAD) CELL

Shivaji University, Kolhapur (SUK) has signed a memorandum of understanding (MoU) with the Central Depository Services (India) Limited (CDSL) for setting-up the National Academic Depositary (NAD) cell earlier this week. SUK is the 17th academic institution across the country to sign a MoU for setting up the NAD cell. The academic depository will prove useful for the students in future and the SUK is committed to bring all their operation in digital mode. NAD is an online store house of academic awards such as degrees, diplomas, certificates and mark-sheets lodged by the academic institutions in a digital format. Through NAD processing, the information will be made available round the clock which will help in validating the authenticity of information, their safe storage and easy retrieval.

VIRTUAL CLASSROOM

A virtual classroom has been setup at the Shivaji University with the support from RUSA. This classroom facilitates freedom to teach and learn from anywhere in the room as well as through remote centers with the internet connectivity. The resource person can explain using an Interactive dualboard and the students interact through a Blue Tooth Class Pad. Subsequently we are planning that the entire curriculum gets developed, class wise, teacher wise and subject wise which is available to one and all. To give the Teacher more time to concentrate on next chapter while the class is completing an exercise, an Interactive panel gives complete charge of the PC using a pen, right in front of the desk. To assess the level of understanding of the students, assessment is done and MIS can be generated which is a ready data to help students to perform better. This classroom in a true sense conduit to apply ICT in classroom at Shivaji University and is all set reach to the colleges through the bandwidth provided under national Knowledge Network.

Through the setup of virtual classroom on the campus of Shivaji University, it is intended to connect 161 affiliated colleges though the internet bandwidth of National Knowledge Network. The University is also been granted seven courses under the Global Initiatives of Academic Network (GIAN) which could be shared with the colleges. Special talks as and when organized would also be able to chare with the colleges. The virtual classroom is setup in the University Library building which also hosts 'Academic Resource Center'(ARC). The ARC resources especially the expert talks for researchers are also planned to be disseminated to the potential researchers on and around the campus. Since the University is already been identified by INFLIBNET for optimal usage of e-resources, the virtual classroom would be the apt platform to propagate the scholarly culture.

MODEL DIGITAL VILLAGE PROJECT

Shivaji University has also initiated a model Digital Village project in a remote village Yelvan Jugai in the Shahuwadi Taluka. The project includes complete digitzation of the daily activites in the village that includes installation of Wi-Fi access points, making cashless transactions etc. The theme is already been identified as the most innovative ones and shortlisted under the NASSCOM 10,000 Startup mission.

INBITIATIVES UNDER UGC MHRD VISAKA SCHEME

Under UGC MHRD Vittiya Saksharta Abhiyan (VISAKA), Cashless Volutners training in 18 Talukas in Sangali Satara and Kolhapur Districts were carried out. 250 volunteers were trained and each volunteer further trained 1700 trainers. Around 60000 families were approached by these trainers leading to digital literacy of around 2.40 lakhs population.

DIGIDHAN MELA

Under this initiative the NSS volunteers sensitized the general public regarding the digital modes of transactions by means of street play, mono play and one act play.



Digital Initiatives at Shivaji University, Kolhapur

Professor Devanand Shinde

Vice Chancellor, Shivaji University, Kolhapur



vers for Digital Initiatives

blished in 1962
len Jubilee Institute
l Area: 345.2 hectares
sdiction over three Districts
ated Colleges: 280
University Departments: 39
ters: 08
rs: 08
ognized Research Institutes: 13
r 2,50,000 students
r 45,000 students through Distance
le

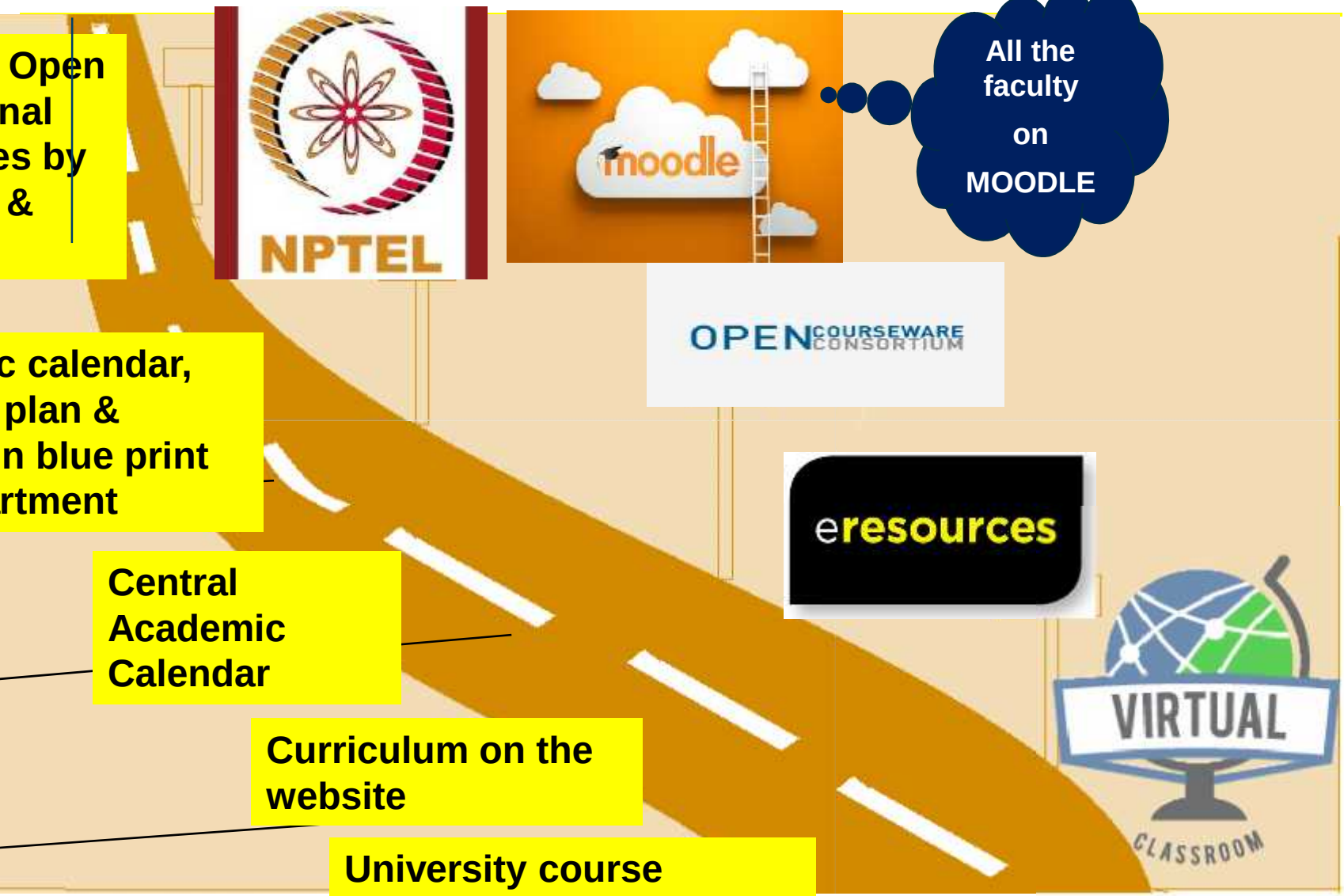
Demographic Details

- University catering to three Districts
- Rural Centric University
- Villages in Kolhapur: 1239
- Villages in Sangli : 735
- Villages in Satara : 1767
- Catering digitally to 3741 villages and good number of towns is a challenge

Our Digital Initiative Models

- University to Students/ Guardians / Informat Seekers
- University to Administration
- University to on-campus Departments
- University to Affiliated Colleges
- Blending of Internet and Intranet

ing-Learning: Bridging the gap between Digital Born & Digital Immigrants



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al Infrastructure

x 7 internet connectivity with Wi-fi facility

npus-wide computer network of around 3300+ nodes

er optic backbone Approx. 23 km.

Mbps leased line + 1 GBPS Leased line under NKN

wall: 'WATCH GUARD 2050A'

bsite with more than 300 pages of exhaustive information

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CCTV camera system for campus surveillance.

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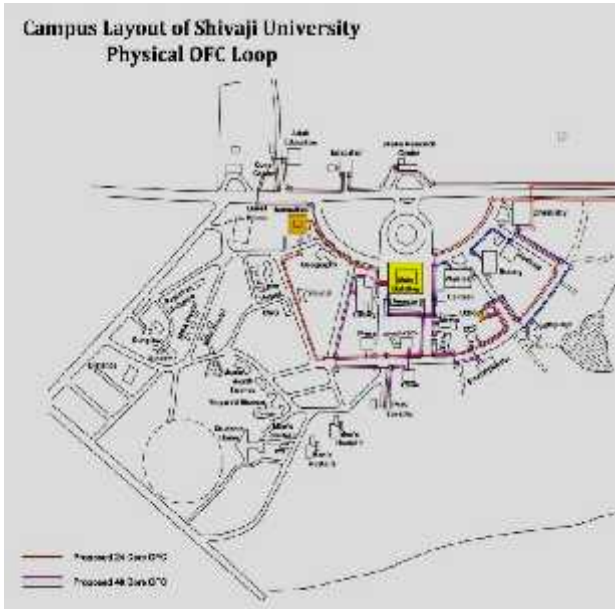

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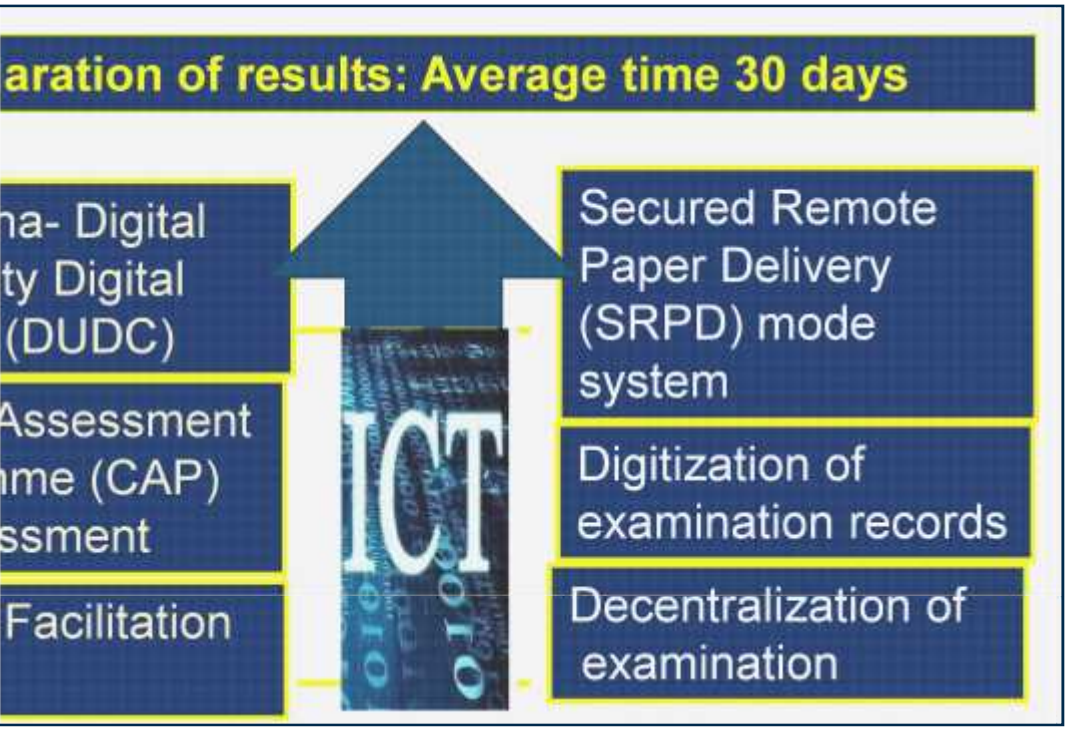

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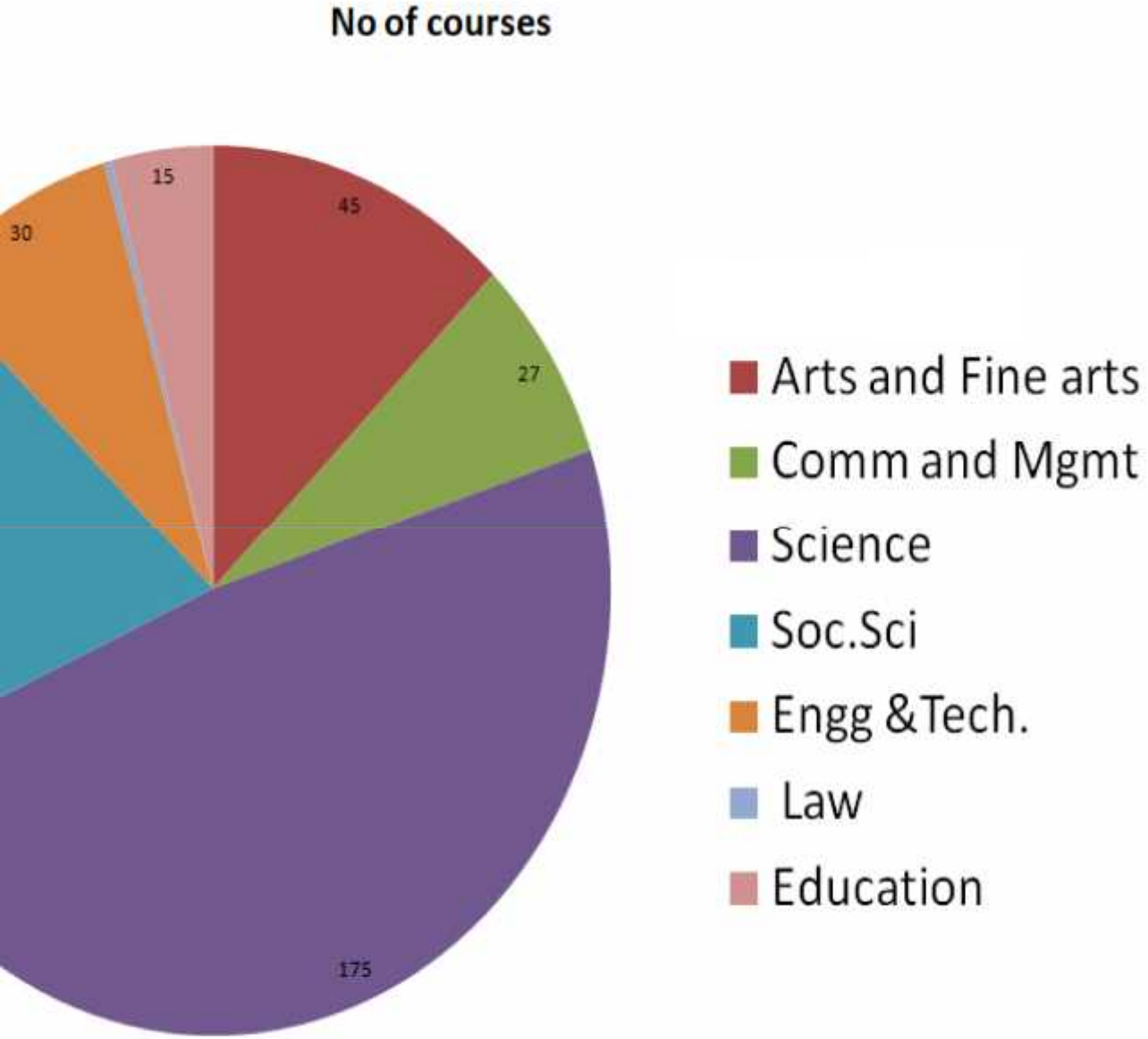

Total Courses: 613

Course Categories:

- ❑Science (233)
- ❑Engineering and Technology
- ❑Social Sciences (90)
- ❑Commerce and Managemen
- ❑Arts and Fine Arts (63)
- ❑Law (8)
- ❑Miscellaneous (4)
- ❑Education (15)
- ❑Center for Distance Educati

Student Feedback System



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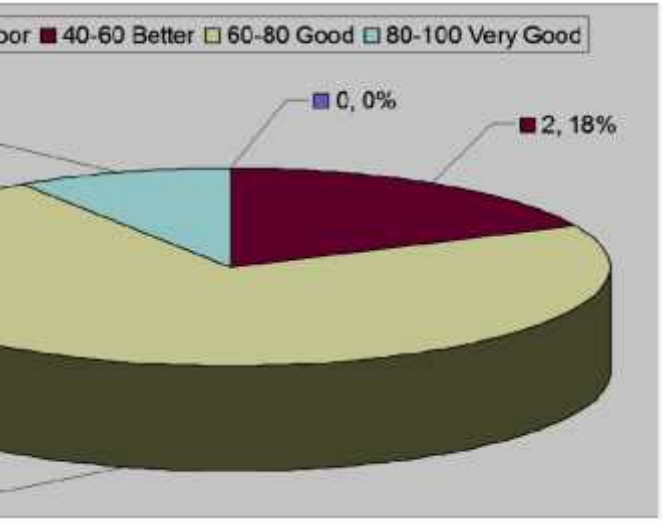
nt Feedback



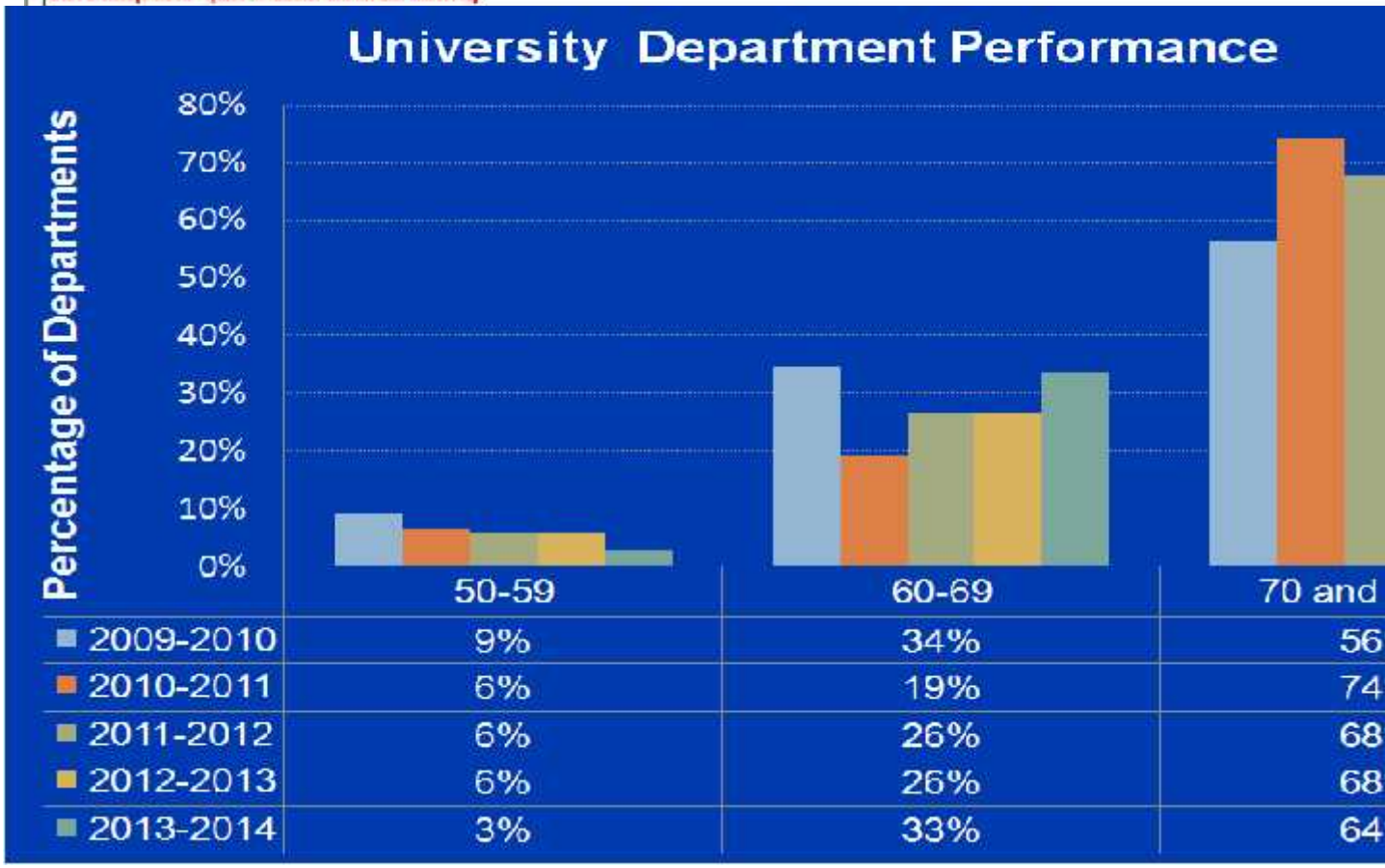
Address http://localhost/rpt67/df1.asp?deptcd=4

Shivaji University, Kolhapur.

Students Feedback on Course (Revised Format No.1- Academic Year -2006-2007)

Department Name : Department of Bio-Technology
No. of Students : 20

1.Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspective)
2.Applicability / relevance to real life situations
3.Depth of the course content
4.Extent of coverage of course
5.Internal Assessment procedure
6.Clarity and relevance of reading material
7.Availability of Library Material
8.Extent of effort required by students
9.Relevance/learning value of project / report
10.Placement Value
11.Conception Clarity
12.Fairness of Evaluation
13.Computer generated overall rating



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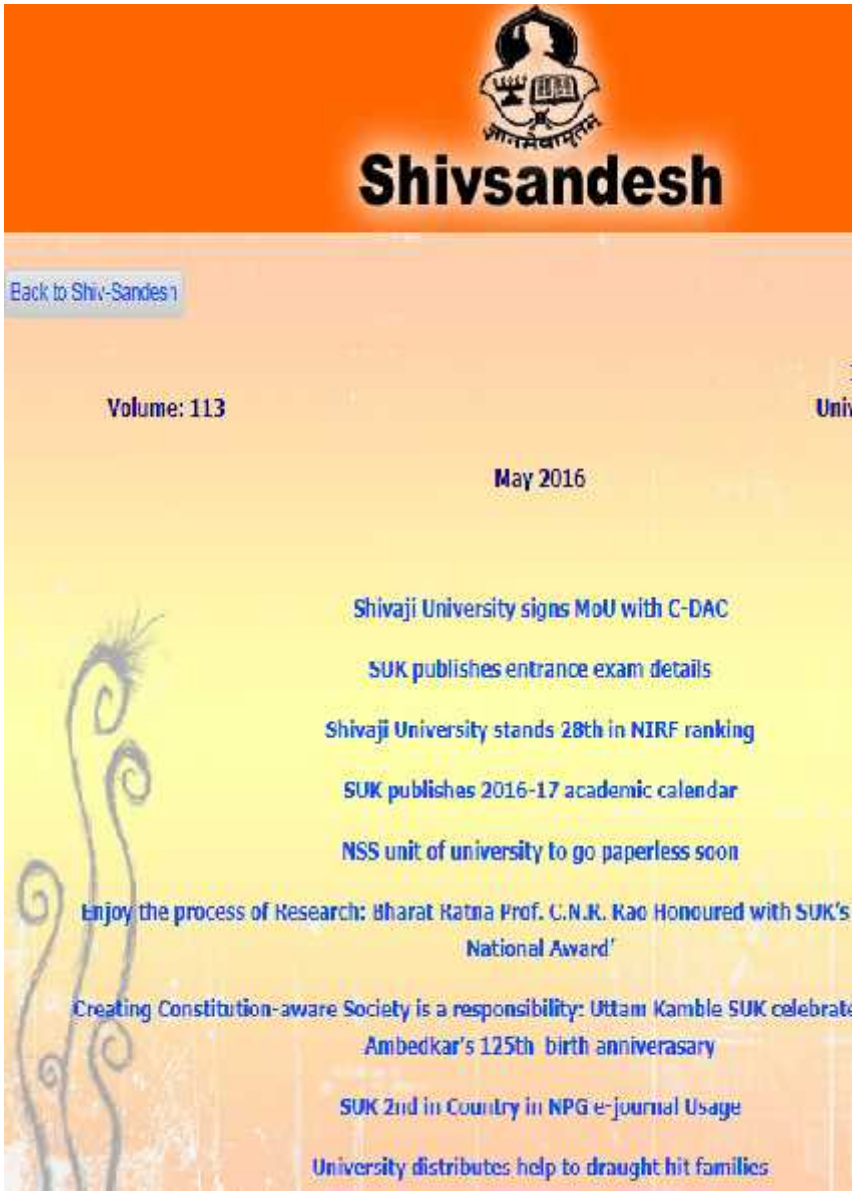
- etings conducted using IT facilities
- ine Student's feedback system
- ine Sales of University published books
- versity has issued/generated certificates in digital m to the participants and created best practice vards a paperless office.
- ine recruitment portal
- nagazine Shivsandesh and a blog to disseminate rmation everyday
- endering portal
- 54 thesis uploaded on Shodhganga



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Digital Literacy Campaign in a vi



ing the Expertise

of the faculty (Dr. R.K. Kamat) Chairing state level mittee constituted by RUSA and working with Industry erts Srinivas Garimella (Microsoft), Burges Cooper (E &Y a), Vinayak Godse (Data Security Council), Mr. Yadav SSCOM) along with Ms. Meeta. Rajivlochan, Director SPD A

mittee has finalized four credit specialized courses in Cyber urity, One Credit general course for all the students under S and faculty development programs

ed MoU with Google for training in Android based Mobile ication Development and with CDAC for Academic and earch Development, faculty exchange and Student Internship

ated collaboration with NASSCOM and Dewang Mehta ndation Trust and hosted the Dewang Mehta Memorial ure and Felicitation of toppers from Kolhapur, Sangli and ra districts.

ated ICT Training for Visually Impaired Students (Jaws ware)

ated spoken tutorials with IIT Mumbai





CDAC

NAS
National Assoc
and Servic

ital Participation: Our Multidimensional Approach

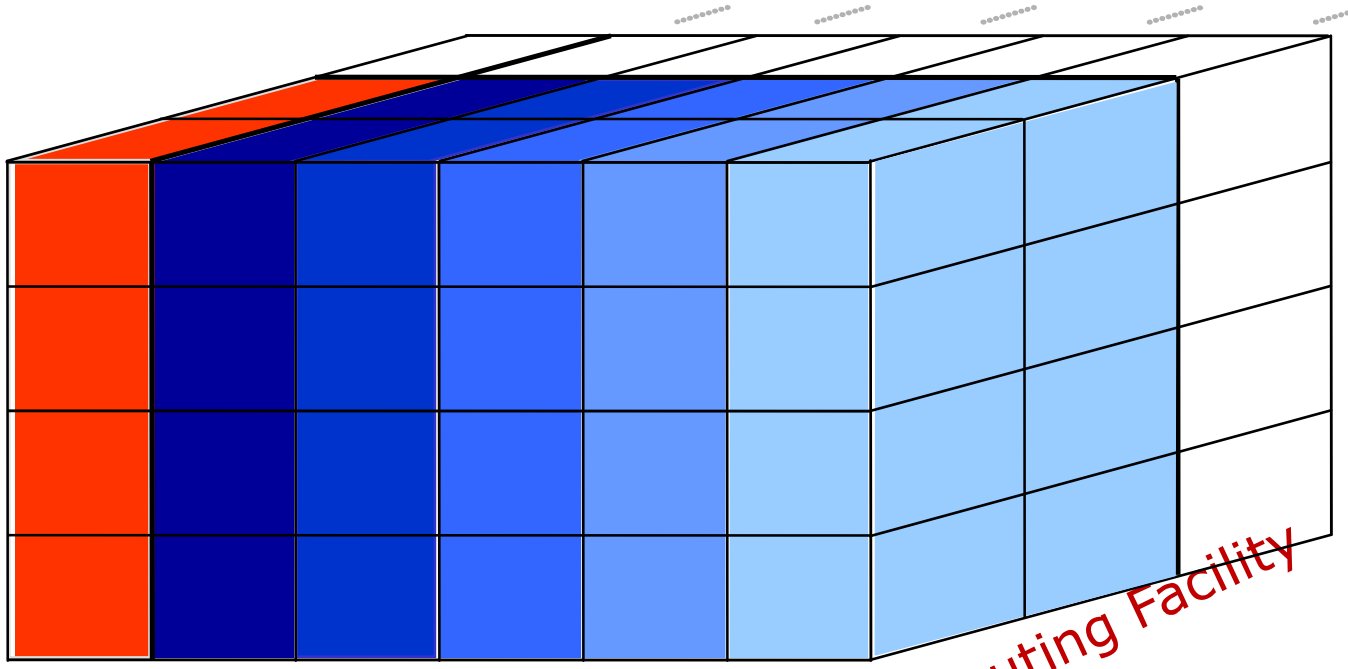
Infrastructural Capacities

164 Colleges Connected through NKN

Data CenterInternet 1.30 GBPS

Wi-Fi Zones

Fiber Optic Back



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Virtual Classro (RUSA)

Record Studio Conten

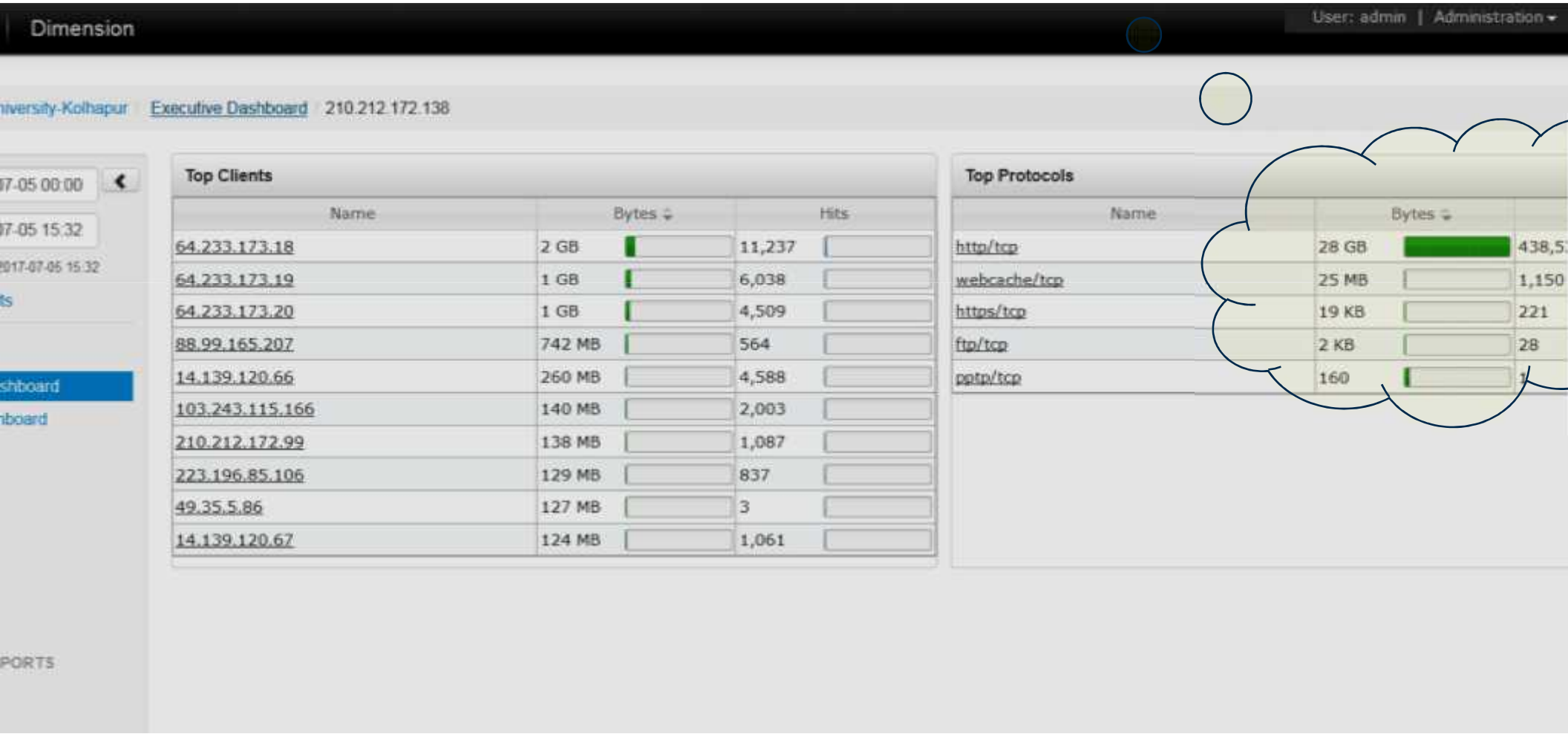
Computing Facility Per Teacher

Smart Classr Per Dep

tranet based resource sharing & governance

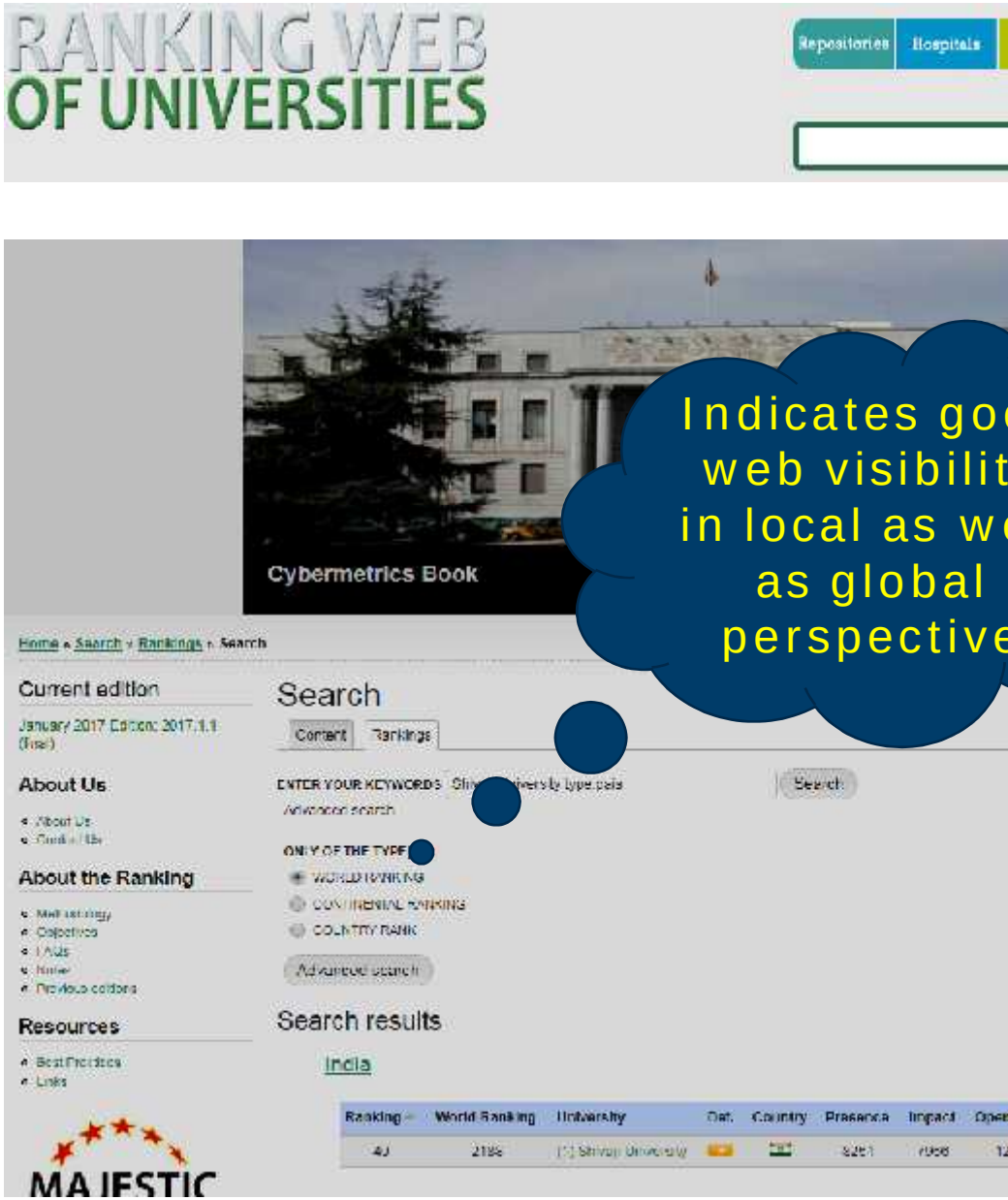
l Participation: Ever Increasing Number of Hits

More than 4 Lakhs hits per day on our website
Indicate its maximum usage by the stakeholders



ome

- ening of 2000+ Digital Lockers by students citizens under ‘Digital India’ celebrations
- net Digital library consortium (INFLIBNET) rt reveals SUK stands second in use of ure publications group’s (NPG) e-journal ge in the country
- nds amongst top 10 in usage of e-urces
- a Center in place
- pus connectivity through Optical Fiber
- colleges connected through NKN
- ual Classroom and Smart Classrooms in e
- ntory control system of Self Instructional erial (SIM) worth 4 Cr.
- hasis on cashless transactions & payment way
- tal literacy to 2.40 lakh population under AKA scheme



Thanks



Special Thanks to DST, UGC, RUSA for funding us to build
state of art Digital Infrastructure

VIKRAM UNIVERSITY, UJJAIN (M.P.)

(NAAC Accredited 'A' Grade)

(NIRF Ranking-top 150 Universities in India)

Digital Initiative for Higher Education – A brief Write-up

1-Innovative Methods for Enhancing Teaching-Learning Process

- University has taken initiative towards upgradation of Laboratories and Smart Class Rooms.
- Online Lectures are made available to the students with Wi-Fi Campus facility.
- Online Journals, online Books and online Periodicals are being subscribed and made available to the students.
- University adopts Smart Class Setup for teaching-learning process.

2- Innovations in improving the administration of institutions

- University has taken initiative to implement Web based e-governance i.e. Integrated University -Management System (IUMS) to cater the requirement of most of the administrative activities of the University. Around 52 modules are designed to regularly monitor the administrative activities of the University.
- To ensure academic and administrative control an initiative has already been taken to implement surveillance system through CCTV camera throughout the campus.

3-Measures for Promoting Research

- Provision for Start-up research fund for the Young faculty members.
- Provision of approx. Rs. 1 Crore for R&D work and allied activities (Rs. 40 lacs for Laboratories, 20 lacs for Smart Class rooms, Rs. 25 lacs for Research Projects & Rs. 15 lacs for Seminars/Conferences etc) from the University budget.
- The industrial and academic collaborations has been made to promote research.
- Several MoU's are in place to promote research activities.

4- Major efforts at involving with the community for improving livelihood

- University has taken initiated to establish various community based program under livelihood scheme such as food preservation and processing, Vermicomposting, Gardening, Digital office automation etc.
- University run various Certificate and Diploma courses such as Hotel management, Tourisms, Fisheries and also run certificate courses in Russian, French and German Languages.
- University has started Post Graduate Diploma in Yoga.
- Various Department of University offer consultancies program for the development of community livelihood.
- University conducted various community based program such as Malaria eradication, drinking water testing, Soil testing, automatic weather station, Mineral and underground water testing, Demographic Statistics and Research Center, Microbial Degradation and testing in Heritage building.

5-Imparting Digital Education

- Using Smart Class room in every faculty.
- Providing e-books and e-Journals to Students and research scholar.
- Providing online Lectures facilities

S Pandey

Vice Chancellor
Vikram University, Ujjain

Vikram University, Ujjain

(NAAC Accredited 'A' Grade)

(NIRF Ranking-top 150 Universities in India)



A brief presentation of University

About University…

- **NAAC Accredited ‘A’ Grade University**
- **MHRD Govt. of India Ranked Vikram University among top 150 Universities in India under NIRF 2017.**
- **Established at Ujjain on March 1st , 1957.**
- **Ujjain is a City of God Mahakaleshwar which holds the rare privilege of being a 5100 years old holy city of learning of Lord Krishna.**





About University…

- **Vikram University has a glorious history, creditable present and visionary future.**
- **Pt. Nehru to APJ Abdul Kalam were an academic Visitor of Vikram University.**
- **Vikram University has the objective to promote traditional as well as modern educational streams.**
- **Proving its contribution in innovation, management and implementing them in various educational disciplines.**





About University…

- **Vikram University has rare collections of more than 20,000 BHURJA PATRA and PALM-LEAF manuscripts.**
- **Digitization of these manuscripts are in process.**
- **Bhimbetka, a World Heritage shelters that have caves and rock paintings was discovered by Vikram University's renowned historian Padmashri Late Shri V.S. Vakankar.**





भीम बेटका की प्राचिन गुफा

Digital Initiative to Improve Quality of Education

- **University has adopted E-governance in academic affiliation, admission, eligibility, enrollment, examination related activities such as filling of examination forms, admit cards, results declaration, display of mark sheet.**

- **Information to students through SMS.**

- **Digitization of Ph.D. Thesis.**

Innovative Methods for Enhancing Teaching-Learing Process

- **University has taken initiative towards upgradation of Laboratories and Smart Class Rooms.**
- **Online Lectures are made available to the students with Wi-Fi Campus facility.**
- **Online Journals, online Books and online Periodicals are being subscribed and made available to the students.**
- **University adopts Smart Class Setup for teaching-learning process.**

Innovations in improving the administration of institutions

- **University has taken initiative to implement Web based e-governance i.e. Integrated University Management System (IUMS) to cater the requirement of most of the administrative activities of the University.**

- **Around 52 modules are designed to regularly monitor the administrative activities of the University.**

- **The Technical Committee of the University has already decided the agency to implement this digital initiative.**

- **To ensure academic and administrative control an initiative has already been taken to implement surveillance system through CCTV camera through out the campus.**

Measures for Promoting Research

- **Provision for Start-up research fund for the Young faculty members.**
- **Provision of approx. Rs. 1 Crore for R&D work and allied activities (Rs. 40 lacs for Laboratories, 20 lacs for Smart Class rooms, Rs. 25 lacs for Research Projects & Rs. 15 lacs for Seminars/Conferences etc) from the University budget.**
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- **University run various Certificate and Diploma courses such as Hotel management, Tourisms, Fisheries and also run certificate courses in Russian, French and German Languages.**
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- **Various Department of University offer consultancies program for the development of community livelihood.**
- **University conducted various community based program such as Malaria eradication, Drinking water testing, Soil testing, automatic weather station, Mineral and underground water testing, Demographic Statistics and Research Center, Microbial Degradation and testing in Heritage building.**

Imparting Digital Education

- **Using Smart Class room in every faculty.**
- **Providing e-books and e-Journals to Students and research scholar.**
- **Providing online Lectures facilities**

Swachhata Bharat Abhiyan

- University Maintain Clean and Green Campus.
- University allocated and disbursed Funds for Swachhata Abhiyaan to every Department.
- University observes Swachhata Abhiyaan every Friday
- Vehicle free Campus/Zone observed every Saturday

Ek Bharat Shrestha Bharat

- Admission through national level entrance test and on merit basis observing State Govt. rules.
- Follow UGC and MP Govt. guidelines for recruitments
- Organize various Sports and cultural programs at national level time to time.
- University participated in various administrative work and three days youth orientation during Vaicharik Mahakumbh and Simhast 2016.

Unnat Bharat Abhiyan

- University encourages Students from villages situated in remote areas to take part in education.
- Promote awareness among students and community through Ambedkar Peeth and Gandhian Adhyayan Kendra established in the University.
- Through Camps of NSS & NCC various literacy programs are operative to eradicate illiteracy in University jurisdiction .

Action Taken on Reducing the Legal Cases

- Counselling of Teachers and students are conducted regularly to mitigate legal issues.
- Jan Sunvai for grievances of students and employees is conducted every Tuesday.
- University has established the legal cell that monitor the legal cases.

Plan of Action for Promoting the Quality of Teaching

- Teachers actively participate in refresher courses and orientation courses.
- University regularly organizes workshops, Seminars and conferences.
- Teachers are encouraged to visit foreign Universities for training in teaching and Research.

3 Years Action Plan

- University's own School of Law, School of Education, School of Distance Education
- Livelihood and Community Colleges.
- Vocational Courses in Industrial Microbiology and Computers.
- Centers for Yoga and Allied Subjects.
- Centre for Anthropology.
- Short Term Training Program on Enterpreneurship.
- Incubation Centre
- Guest House and Shikshak Sadan Extension
- 24 X 7 IT Centre with 200+ Computers with fully Wi-fi facilities.
- Administrative Office Extension
- Academic Staff College Building
- 100 beds one Girls Hostel and one Boys Hostel.

7 Years Strategic Plan

- **Integrated Courses in various disciplines like: B-Pharma-M.Pharma, B.E-M.Tech., B.E.-MBA, BA-LLB , B.Com –LLB, BCA-MCA, BBA-MBA etc.**
- **Sports Complex and Academic Programmes- B.P.Ed., M.P.Ed.**
- **Integrated Centralized Computer Center.**
- **Multipurpose Hall/Building**
- **Tracking ground and Indoor and Outdoor games Complex.**
- **Digitization of the Sculpture and Scripts.**
- **Extension of School of Engineering & Technology building**
- **1000 seated Auditorium**
- **AVRC (Audio and Video Recreation Centre) with Outdoor theatre**
-

15 Years Vision

- **University's own managed Medical College and 300 bed Hospital.**
- **Nursing College and Hostels**
- **Central Instrumentation Laboratory**
- **International Guest House and Swimming pool**
- **Nanotechnology and bioinformatics research centers.**
- **Establishment of Gene and germ plasm banking**
- **Center for Preservation of indigenous crop by genetic engineering**
- **Advance Centre for Social Engineering and political ethics and issues in Society.**
- **Centre for Food Technology**
- **Advance Centre for Robotics and Next Generation Computing.**
- **Advance Centre for Mathematical Sciences.**

Suggestion for New Education Policy

- **Value based Education System**
- **Proper Budget allocation to HEI**
- **Higher education should be rationale**
- **“Earn while learn” should be principle in lower/Higher education**
- **Cultural- scientific-research exchange programs should be regularly conducted within/outside country.**
- **At least one institute should be center of Excellence to bridge the scientific gap.**
- **RUSA funding must be disbursed directly to the University as per previous practices of UGC; hence University will submit UC directly to RUSA.**
- **Recurring expenditure of the Universities must be born by the state /Central Government to meet the imbalances of the fund (Specially in the case of MP Universities) .**



entral University of Kashmir

Introduction

- Name of the University: **Central University of Kashmir**
- Date of establishment: **15th January, 2009**
- Campus Area (in Acres): **503 Acres**
- NAAC Accreditation: **SSR Submitted**
- NIRF Ranking: **106 (100-150 Bracket)**
- Total number of students (as on 31.03.2017) : **1737**
- Number of Teaching Departments: **20**
- Number of Programmes Offered: **38**



Digital and other initiatives/reforms

Curricular instructional strategies

Content: The university has developed e-content for:

- **07 Departments**
- **36 faculty members were involved**
- **50 courses**
- **102 units with the total of 569 topics**

ontinuous Internal Assessments (CIA)

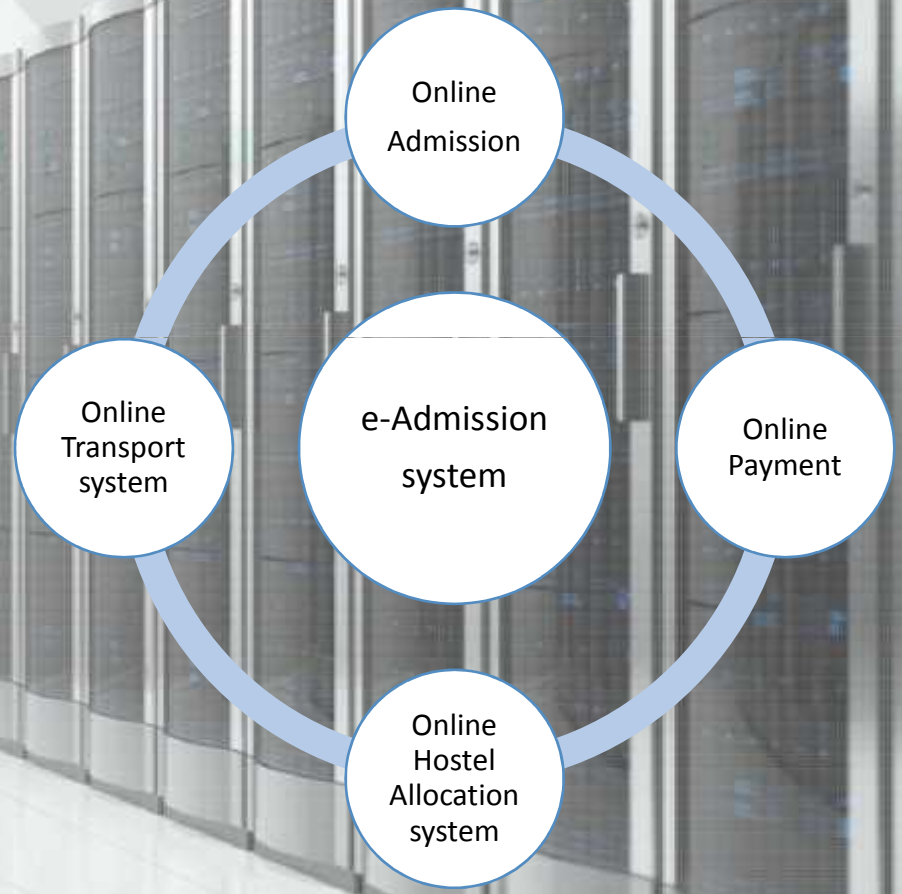
- **Online Continuous Internal Assessments (CIA)**
- **Generation of authenticated online awards**
- **Online feedback mechanism for both Internal Quality Assurance Cell (IQA and for general grievances available on University website**

Content for MOOCs

- **e-Content preparation for Massive Open Online Courses (MOOCs) und progress**

Digital initiatives on Admissions front

- **Admissions through online mode**
  - **Online applications**
  - **Online results**
  - **Online counselling**
  - **Online admissions**
- **Other e-Services:**
  - **Online Transport System**
  - **Online Hostel Allocation System**
  - **Online Payment System**



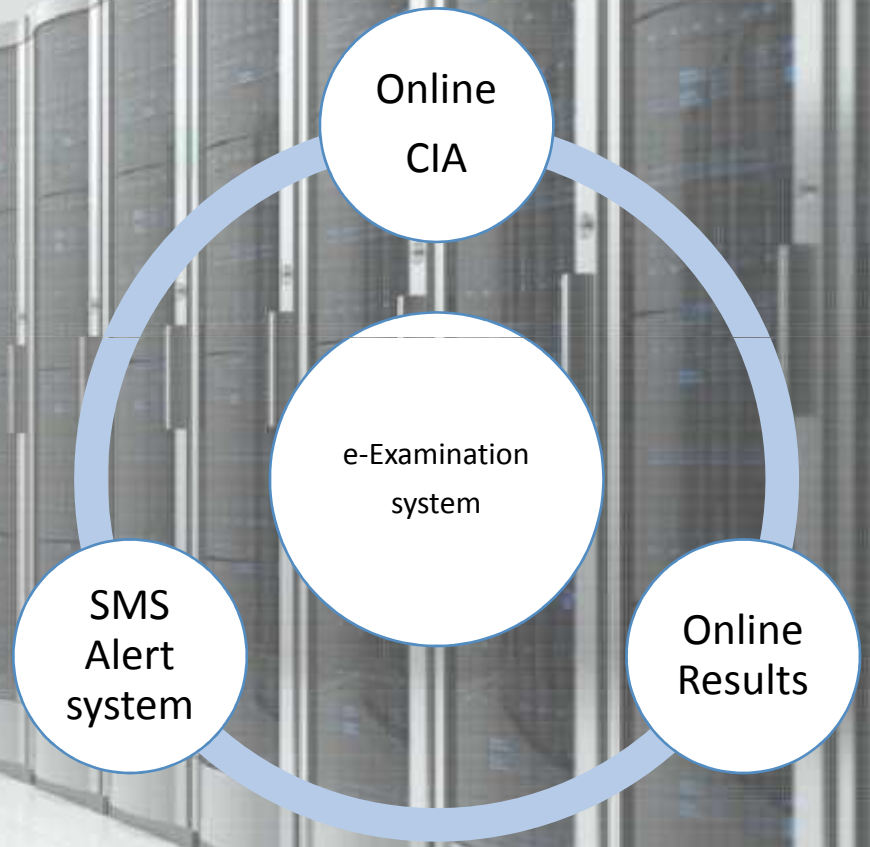
Digital initiatives on Examination front

Examination through online mode:

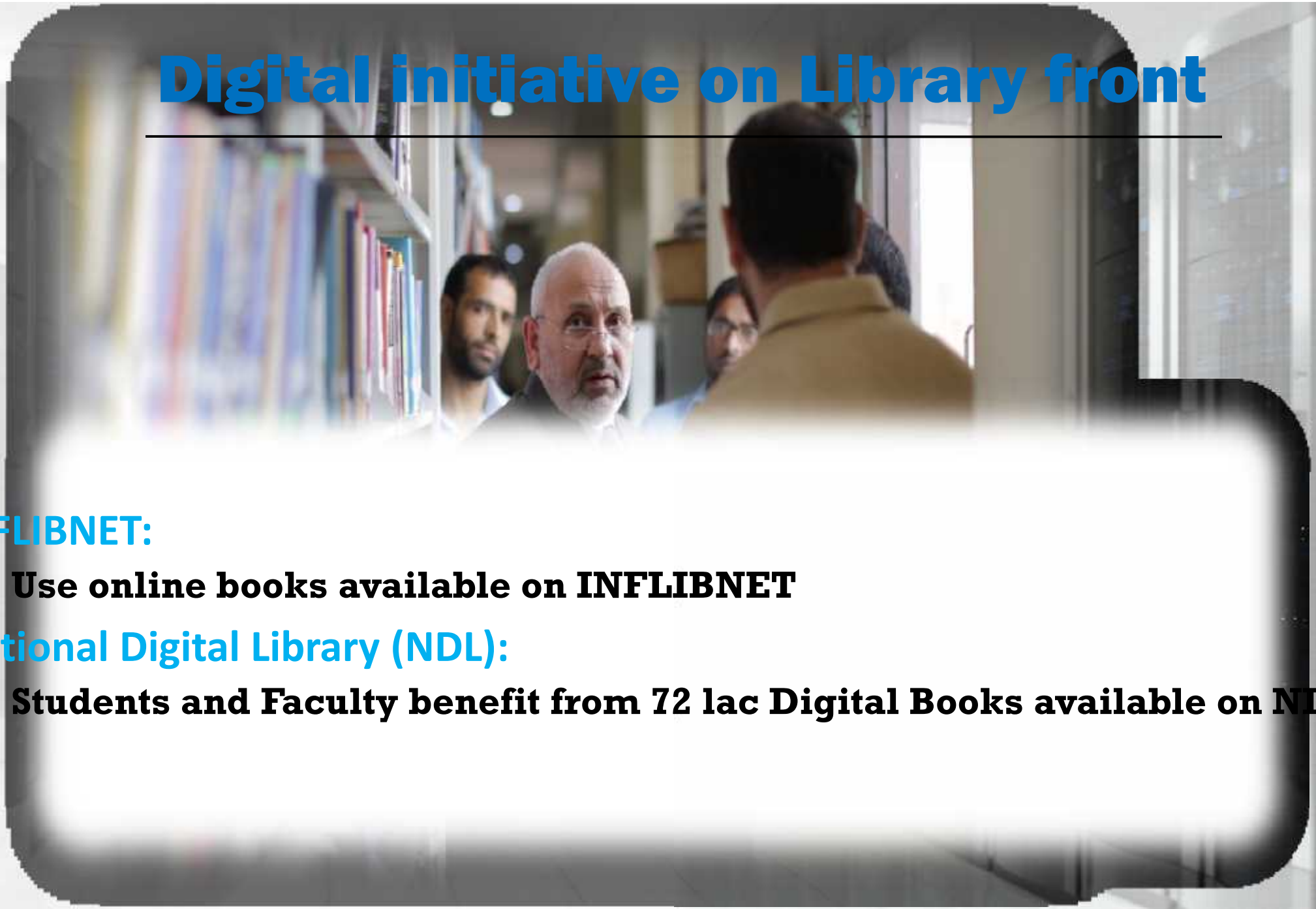
- **Online Continuous Internal Assessment (CIA) test**
- **SMS alert System**
- **Online Results**

National Academic Depository (NAD):

- **Digital issuance of Academic Certificates**
- **Storage of Academic awards**
- **Access 24x7 and**
- **Verification of academic awards**



Digital initiative on Library front



FLIBNET:

- **Use online books available on INFLIBNET**

ational Digital Library (NDL):

- **Students and Faculty benefit from 72 lac Digital Books available on NDL**



Innovations in improving Administration

Digital initiative on Financial Literacy

- **Conducted awareness programme on VISAKA for digital and cashless economy**
- **Initiatives like online payments, total digital SBI In-Touch Branch, etc.**
- **Issued debit cards to various imprest holders for making digital payments**
- **Payments through RTGS minimizing Manual Transactions**

University Website

- **Updated University website www.cukashmir.ac.in**
- **Pro-active disclosures**
- **Minimized number of RTIs**
- **Interactive and user-friendly website**
- **Laptop/Desktop and Mobile versions enabled**



IT infrastructure

- **IT Network:**
  - **Strong IT network, connecting various campuses to the main Data Centre for enabling digital initiatives**
- **Use of electronic Communications:**
  - **Accepting electronic communications for official purpose, made through intranet and internet facilities**
- **MHRD Campus Connect Wi-Fi:**
  - **Part of Campus Connect Network Project implemented by MHRD**
  - **To provide internet through Wi-Fi connectivity to students, faculty and staff at the identified hotspots**

Swachh Bharat Abhiyaan

- **Events:**
  - **Swachh Bharat Abhiyaan Week (22 June – 26 June 2015)**
- **Measures:**
  - **Every effort is made to ensure cleanliness in the University**
  - **Students, faculty and staff are involved for promoting Swachh Bharat Abhiyaan**

Action taken to reduce Legal cases



- **All information available on University websit**
- **Proactive disclosures**
- **Transparent selection procedures**

Suggestions on New Education Policy

- **Start school at later age**
- **Nurture individual potentials & faculties**
- **Inclusiveness in Higher Education**
- **Improving Research quality**
- **Providing Consultancy for Developmental Projects**
- **Higher Education available to all using IT open source mod**
- **Introducing Skill based courses for Skilled India**



Future initiatives

E-content for SWAYAM (MOOCs):

- The main focus of the University is to develop quality digital Content for implementation of SWAYM (MOOCs) and to develop supportive IT infrastructure.

e-Governance:

- The University has also issued tenders for implementation of e-Governance project for automation of all records and processes of University.

Issues/Problems

- Low Bandwidth and instability in NKN connectivity
- Delay in implementation of MHRD Campus Connect Network project
- Less Technical staff positions sanctioned by UGC

Thank you



Central University of Kashmir was established in the year 2009. At present 20 Teaching Departments have been established and 38 programmes are being offered by these departments. At present the University is having student strength of 1737, teaching faculty permanent 76 and contractual 29. Non-teaching support of 80 permanent employees are associated with the University. The University is able to perform its academic and administrative processes with due involvement of digital support. Some of the initiatives taken by the University on this front includes:

A. Curricular instructional strategies:

The university has developede-content for Seven Departments,36 faculty members were involved in creation of digital content which was completed for 50 courses, covering 102 units with the total of 569 topics. University is in process of widening the base for creating digital repository of academic content in the form of video lectures, video tutorials and e-content which is available on the University website. The University took a step forward by enabling Continuous Internal Assessments (CIA) Online tests and generation of authenticatedonline awards. The University has a strong online feedback mechanism for both Internal Quality Assurance Cell (IQAC) and for general grievances which is available on University website. The University has considered the proposal for implementation of Massive Open Online Courses (MOOCs) for which e-content preparation is under process.

B. Digital Initiatives on Admissions Front:

The University is admitting students through online mode. Process starts from seeking online applications, declaration of online results, online counselling and finally admissions are done through online mode. In addition, following e-services are being provided to the enrolled students:

1. Online Transport System
2. Online Hostel Allocation System
3. Online Payment System

C. Digital Initiatives on Examination Front:

The University has developed various examination related e-services, which includes following:

1. Online Continuous Internal Assessment (CIA) test
2. SMS alert System
3. Online Results

The University has participated in National Academic Depository (NAD) to facilitate digital issuance, storage, access and verification of academic awards issued by the University.

D. Digital initiatives on Library Front:

The University has participated in INFLIBNET and is using online books available on INFLIBNET. The University is also part of National Digital Library (NDL). The students and facultyarebenefiting from the Digital Books available through NDL.

E. Digital Initiative on Financial Literacy:

As regard to financial literacy, the University has conducted various awareness programmes for cashless campuses like VISAKA for digital and cashless economy. Various initiatives like online payments, established total digital SBI Intouch Branch, etc. have been taken by the University.The University has also issued debit cards to various imprest holders for making digitalpayments.The University is making payments to suppliers/agencies/institutions through RTGS, thereby minimizing the manual transactions.

F. University Website:

The University has an updated university website wherein pro-active disclosures are made to minimize the number of RTIs. The University is having an interactive and user-friendly website which is enabled for both laptop/desktop and mobile version.

G. IT infrastructure:

For enabling various digital initiatives, the University has created a strong IT network, connecting various campuses to the main Data Centre. The University has adapted the practise of accepting electronic communications for official purpose which are made through intranet and internet facilities.

The University is also part of Campus Connect Network Project implemented by MHRD in various Central Universities. Under this project, the University endeavours to provide internet through Wi-Fi connectivity to its students, faculty and staff at the identified hotspots.

H. Future Initiatives:

The main focus of the University is to develop quality digital Content for implementation of SWAYM (MOOCs) and to develop supportive IT infrastructure.

The University has also issued tenders for implementation of e-Governance project for automation of all records and processes of University.

NATIONAL LAW UNIVERSITY, DELHI

DIGITAL INITIATIVES AT NLU DELHI

1. The MHRD, under its National Mission on Education through ICT has assigned work to the UGC for development of e-content in 71 subjects at postgraduate level. In turn, the National Law University, Delhi was entrusted by UGC to develop e-content for Post Graduate Courses in sixteen subjects in Law under e-PG Pathshala Project. The NLU Delhi successfully completed the said project and prepared course materialfor approximately 400 modules in the subject 'Law'

2. Further, the National Law University, Delhi has been entrusted by UGC to develop e content for the Post Graduate Courses for the subject Criminology. This project involves developing e-content for Post Graduate Courses in ten (10) subjects in Criminology under E- PG-Pathshala Project. The University is actively working on this project and will be submitting more than 350 modules to UGC by the end of July 2017.

3. The Government of India has approved a scheme for Massive Open Online Courses (MOOCs) to provide best quality e-learning resources to students across country. The National Law University, Delhi is working on Repurposing of e-content into MOOCs for nine subjects as per the guidelines provided by UGC.

4. The National Law University Delhi has successfully organized four courses under Global Initiative of Academic Network (GIAN) scheme by inviting renowned and eminent International Faculty for the following courses:
    a. A GIAN Course on 'Contradictions, Critique and Criminal Law' delivered by Prof. Alan Norrie, School of Law, University of Warwick, U.K. from 14-18 March 2016
    b. A GIAN Course on 'Comparative Contract Law and Practice' delivered by Prof. Stefan Vogenaeur, Managing Director at the Max Planck Institute for European Legal History, Frankfurt Germany from 12-22 May 2016
    c. A GIAN Course on 'Cross Border Business Law and Practice' delivered by Dr. Bruno Zeller, Professor of Transnational Commercial Law at University of Western Australia from 10-23 October 2016.
    d. A GIAN Course on 'Clinical Legal Education and Access to Justice' delivered by Ms. Lisa Bliss, Director of Experiential Education and Clinical Professor at Georgia State University College of Law from 01-05 November 2016.

    The University is in the process of organizing many more GIAN Courses in the coming months.

5. The entire campus at NLUD is wi-fi enabled. The internet centre is located in the Library and has 50 high end desktops with Microsoft operation system and well equipped optical drives. The internet centre is supported with three servers and with a high speed bandwidth.

6. The Library at NLU Delhi has subscribed to a number of renowned online databases in law such as Hein Online, LexisNexis, JSTROR, Kluwer, Corporate Law Advisor, Taxmann-Online, Manupatra, Indiastat, West-Law etc. The E-books are available through Cambridge University Press, E-hart, Oxford University Press and Taylor and Francis.

7. The Library at NLU Delhi has a Digital Access Portal for accessing all digital resources outside the university campus from anywhere in the world through Remord Login.

8. The Library at NLU Delhi has implemented RFID Technology having automatic facility for the issue and return of books .

9. The University has acquired an ERP from TCS for automation of various sections at University such as accounts, establishment, examination etc. The TCS Platform is also used for facilitating e-learning for various courses and for imparting online and distance education.

10. The University has set best example of implementation of ERP system for various routine teaching process and the ERP is being used for recording Electronic Attendance, submission of Projects and Assignments, Electronic Declaration of Results, Plagiarism check etc.

National Law University Delhi



National Law University Delhi

National Digital Initiative

9-10 July 2017

Teaching-Learning Process at NLUD

- The National Law University, Delhi imparts instruction in simulated settings through lectures, seminars, tutorials, moot courts, client interviewing, mediation / conciliation along with interactive and participatory learning to develop professional skills in budding lawyers.

- The faculty advisors act as mentors and counselors for students in their curricular and co-curricular activities.

Teaching-Learning Process at NLUD

- **Study materials accompany instruction in each course to facilitate interactive learning.**
- **Collaborative teaching is undertaken in some courses to maximize available expertise and to promote inter-disciplinary learning.**
- **The University has a privilege to invite sitting and retired judges from the Supreme Court and the High Court and leading lawyers and academicians for lectures, seminars and discussions.**

Teaching with Technology

The University is best example of Implementation of ERP system for routine Teaching Process

- **Electronic Attendance System**
- **Podcast in Classroom**
- **Electronic Submission of Projects and Assignments**
- **Electronic Result Declaration.**
- **Empirical Legal Research Tools viz. Statistical Package for Social Science Software (SPSS) and Atlanta**
- **Plagiarism Check Software (Turnitin)**

Research at NLU Delhi

- **The academic approach at the National Law University, Delhi has undergone remarkable shift and the University has transformed itself from a mere teaching institution to a research driven institution.**

- **The National Law University, Delhi has gone 'global' in terms of undertaking research projects in collaboration with various reputed foreign institutions.**

Research at NLU Delhi

- **The National Law University, Delhi has established more than ten Research Centres for carrying out research on significant issues of legal relevance. These include:**

a. **Centre for Banking and Financial Laws**
b. **Centre for Communication Governance**
c. **Centre for Comparative Law**
d. **Centre for Corporate Law and Governance**
e. **Centre for Constitutional Law, Policy and Governance**
f. **Centre for Criminology and Victimology**

Research at NLU Delhi

- Centre for Comparative Studies in Personal Laws
- Centre on Death Penalty
- Centre for Environmental Laws, Policy and Research
- Centre for Comparative Studies in Personal Laws
- Centre for Social Inclusion and Minority Rights
- Centre for Transparency and Accountability in Governance
- Centre for Transnational Commercial Laws
- Centre for Innovation, Intellectual Property Rights and Competition.

Research at NLU Delhi

- **The Centre for Innovation, Intellectual Property and Competition (CIIPC), had received a funding approval of USD 3,50,000 (INR 2,34,50,000) from Qualcomm Inc. during 2016-17.**

- **The Centre for Comparative Law headed has received a grants of EURO 10,000 from the Schulze Fielitz Stiftung, foundation, Berlin, Germany in 2016-17 as research assistance**

Research at NLU Delhi

- **The Centre for Constitutional Law, Policy and Governance has received grants of Rs 17,00,000/- from Delhi High Court Legal Services Committee for carrying out second phase of Prison Advocacy Project in 2016-17**

- **The Centre for Communication Governance has received international grants from various funding agencies to the tune of USD 2,40,000/- for carrying out various research studies.**

Research at NLU Delhi

- **The Centre for Death Penalty has received grants of around USD 250,000, Euros 1,84,000 and Pounds 4,370 from various international funding agencies for carrying out research in 2016-17**

- **The Centre for Transparency and Accountability in Governance received sanction of Rs. 40 Lakhs from Indian Council for Social Science Research for carrying forward a research study**

Research at NLU Delhi

- **The Centre for Criminology and Victimology received a sanction of Rs. 112 lakhs for e-content development for the Post Graduate Subject – Criminology.**

- **The University Grants Commission sanctioned grant of Rs.192.50 lakh for the project titled Study and Research in Indigenous and Endangered Languages in India under the XII Plan Scheme.**

Research at NLU Delhi

- **The University Grants Commission has sanctioned a sum of Rs.58.88 Lakh for the project entitled "Developing Indo-Norwegian Cooperation within Law" under Indo-Norwegian Cooperation Programme 2014 (INCP). II instalment of Rs.29.44 Lakh also has been received by the University**

- **The Ministry of External Affairs, Government of India, requested the National Law University, Delhi to assist in the preparation of India's National Report for the 3rd round of the Universal Periodic Review before the UN Human Rights Council. The Report was prepared under the supervision of the Prof. (Dr.) Ranbir Singh, Vice Chancellor, and was submitted to the Ministry in December, 2016. A total of Rs. 22 lakhs has been sanctioned by the Ministry for this project to the University**

Legal Aid at NLU Delhi

- The National Law University, Delhi shares a broader vision of justice education and weaves public interest work into regular curriculum to prepare students as agents of social change.
- Over the years, the Legal Services Committee at NLUD has been involved in fostering legal aid and awareness.
- The University provides Legal Aid Services with an objective to facilitate access to justice to the poor and marginalized and provide legal aid services to make right to legal aid as a reality.
- The University has established a fully functional legal aid clinic to pursue the causes of the people seeking legal counsel.

Legal Aid at NLU Delhi

- **The Legal Aid Committee at the NLU Delhi has undertaken a Project on 'Compensation for Sewerage Deaths' in association with Safari Karamchari Andolan (SKA) with an aim to identify the families of deceased sewerage workers and to help them to claim compensation from Government of NCT of Delhi.**

- **The Legal Aid Committee at the NLU Delhi recently organized a Pro Bono Week in association with i-Probono and hosted eminent pro bono lawyers for providing exposure to students about pro bono lawyering through multiple events such as lecture series, workshops, client counselling, movie screening etc.**

Digital Education at NLU Delhi

- **The MHRD, under its National Mission on Education through ICT has assigned work to the UGC for development of e-content in 71 subjects at postgraduate level. In turn, the National Law University, Delhi was entrusted by UGC to develop e-content for Post Graduate Courses in sixteen subjects in Law under e-PG Pathshala Project. The NLU Delhi successfully completed the said project and prepared course material for approximately 400 modules in the subject 'Law'.**

- **Further, the National Law University, Delhi has been entrusted by UGC to develop e content for the Post Graduate Courses for the subject Criminology. This project involves developing e-content for Post Graduate Courses in ten (10) subjects in Criminology under E- PG-Pathshala Project.**

Digital Education at NLU Delhi

- **The Government of India has approved a scheme for Massive Open Online Courses (MOOCs) to provide best quality e-learning resources to students across country. The National Law University, Delhi is working on Repurposing of e-content into MOOCs for nine subjects as per the guidelines provided by UGC.**

IT based Digital Educational Resources at NLU, Delhi

- **Web based Online Public Access Catalogue for search bibliographic records of Books and Articles available in Print.**
- **Facilitating electronic research tools for accessing wide ranges of International and Indian legal resources like case laws, legislations, academic articles, law magazines, news etc.**
  - **International Databases like Westlaw, LexisNexis, JSTOR and HeinOnline.**
  - **Indian Databases like SCC Online, Manupatra, Taxmann, Corporate Law Advisor.**
  - **Access to more than 10,000 Electronic Books from publishers around the world.**
  - **Information Alerts services viz. Article Alerts, Book Alerts, Case Law Alerts and Newspaper Clipping Alerts.**

Digital Educational Resources at Open Domain

- **Indexing of best possible known international and Indian information resources available in open domain including**
  - **Legal Information Institute of India A Virtual Law Library.**
  - **Constitutions of all of the World**
  - **Case of Foreign Appex Courts and Legislation of various countries viz. Australia, Canada, UK and US.**
  - **Open Access Books**
  - **Open Access Journals and Scholarships**
  - **Reports of Various organization**

Accessible at http://nludelhi.ac.in/libary-archival.aspx

Academic Community and IT enabled Facilities

- **WiFi Facilities to Faculty, Staff and Students with in Campus and Faculty House.**
- **IT enabled Library having fully automated Environment.**
- **Internet/Computer Centre.**
- **RemoteX Software for Accessing Digital Databases from Outside of the University.**
- **E-PG Pathshala Gateway.**

IT enabled Administration at NLUD

- **Online Application System for AILET of NLU, Delhi.**
- **Online Fee and other Payments through ECS and Card Swapping Machines.**
- **Electronic Attendance System for Staff.**
- **Online Announcement of Semester End Results.**

THANK YOU

AMITY UNIVERSITY

National Convention

on Digital Initiative for Higher Education

8th-10th July 2017

A) INNOVATIVE METHODS FOR ENHANCING TEACHING - LEARNING PROCESS

• Use of power point and over head projector (OHP) for teaching. All classrooms have OHPs installed.

• Conduct of Seminars/Workshops being attended by diverse profile of students from different programmes to encourage inter-disciplinary learning.

• Conduct of debates, group discussion, case studies to encourage learning.

AMITY UNIVERSITY

•Conduct of educational tours and visits for practical training.

• Guided Self Study Course for weak students on Saturday/Sundays/Holidays.

AMITY UNIVERSITY

- University has a very unique real time 24x7 interactive portal called **"Amizone"** (Amity Internet Zone)
- Attendance is regularly marked after every class immediately by every faculty on Amizone.
- Time table is uploaded and updated regularly on Amizone.
- Course contents are uploaded in the form of PPTs, PDFs, Word file, Videos etc. regularly on Amizone.

AMITY UNIVERSITY

- Exam results and mark sheets are made available on Amizone.
- The Summer Internship projects, dissertations, term projects of students are tracked on Amizone.
- At the end of each semester the feedback from students is taken on Amizone.
- Biometric machines are mapped with Amizone to track attendance of hostellers, staff and day scholars.

AMITY UNIVERSITY

- The faculty uploads session plans and home assignments.
- The students can write their suggestions/complaints on Amizone.
- Fee can be deposited by the students on Amiozne.
- Admission process has been completely automated through Amizone.

AMITY UNIVERSITY

B) INNOVATIONS IN IMPROVING THE ADMINISTRATION OF INSTITUTIONS

We have a dedicated water treatment plant.

- Rain water harvesting system is installed in the campus, which has been applauded by the Honourable High court of Madhya Pradesh.
- Water softener plant is installed in the campus.
- Action has been initiated for installation of solar panels at the campus.
- LED lights are installed all across the campus, including hostels, to save energy.

AMITY UNIVERSITY

- Proper signage and security, backed by Eighty Five 24*7 CCTV cameras.
- Well fenced boundary wall for 102 acres of University land.
- Single entry system with boom barriers.
- Biometric machines are installed at all the blocks and hostels in the campus.
- 24*7 ATM and 24*7 Ambulance service available at campus.
- Stationary shop, Cafeteria, Gym, TV rooms and Mess services available for students.
- Huge playground with ultra modern sports complex for students and faculty members at campus.

C) MEASURES FOR PROMOTING RESEARCH

- Independent department called Directorate of Research is functional in the University.
- All departments are having Research representatives called Research Engines and Research Persuaders. They are working for the cause of development of Research in their respective departments and are directly reporting to the Dean-Research.
- Special incentive schemes have been formulated for motivating the Faculties for doing good research.

AMITY UNIVERSITY

- Due weightage is given to research component during annual faculty appraisals and promotions.
- Research papers publication has been made compulsory for all Research Scholars pursuing their Ph.D. programs.
- Credit is given only for publications in SCOPUS/WoS/SCI indexed journals.
- Monthly research review meetings are held with all Head of Institutes and HoDs to review the progress.
- Two Journals, recognized by UGC being published by the University.
- 3 Funded Projects completed and 2 are ongoing. In addition 27 submitted to various funding agencies and are under evaluation.

AMITY UNIVERSITY

D) MAJOR EFFORTS AT INVOLVING WITH THE COMMUNITY FOR IMPROVING LIVELIHOODS

- Two NSS units of 100 students each at campus.
- Nearby village adopted by NSS volunteers.
- Blood donation camps organised every year.
- Amity University Madhya Pradesh is running a unique course module called SAP (Social Activity Programme) for socially and economically deprived population. Through SAP we enhance the employability of youth by imparting trainings like computer literacy, financial literacy, health and hygiene awareness.

AMITY UNIVERSITY

- Amity University focuses on skill based education and entrepreneurship development programmes.

- Amity University Madhya Pradesh provides skill based training programmes to industry and academic institutions.

E) IMPARTING DIGITAL EDUCATION

- NSS students of Amity University provided digital education training to different groups of society at the time of demonetisation.
- Cash transactions are discouraged at Amity University.
- TDS is followed for all payments at University.

AMITY UNIVERSITY

- The entire University campus is Wi-Fi enabled.
- Amity University is using Amizone as a digital platform to connect students, faculty members and parents to enhance the teaching learning experience of all the stakeholders.

AMITY UNIVERSITY

Thank You

AMITY UNIVERSITY
MADHYA PRADESH

Write up on: National Convention on Digital Initiative for Higher Education to be held on 8th-10th July 2017

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ITM
UNIVERSITY
GWALIOR • MP • INDIA
"CELEBRATING DREAMS"





ITM University Gwalior

(Established in 2011)

ITM University Gwalior

- ITM University Gwalior is established by the State Legislative Act of Madhya Pradesh Government under 2(f) of the UGC Act and having Right to confer Degrees/Diplomas under 22(1) of the UGC Act for its various courses.
- ITM University Gwalior is notified by the UGC vide letter No. F. No. 8-21/2011 (CPP-I/PU) dated 16.08.2011 & recognized by concerned statutory bodies of Government of India.
- ITM University Gwalior is a member of Association of Indian Universities (AIU).
- ITM University Gwalior is ranked amongst the best Universities of India by MHRD through NIRF-2016 and as Platinum Category Engineering Institute in India by AICTE-CII in 2017.

Courses

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Ph. D. in Engineering / Sciences / Management / Agriculture
M. Tech / M. Tech. (Integrated)
M. Sc. Nursing
M.Sc. Agriculture
M.Sc. Microbiology / Biotechnology / Food Technology /Physics / Chemistry / Mathematics
Master of Business Administration (MBA)
Master of Computer Applications (MCA)
B. Tech. / B. Tech. (Hons.)
BBA / BBA(H)
B. Com. / B. Com. (H)
B. Arch
B.Sc. Nursing
B.Sc. (Biotech) / B.Sc. (Food tech)/ B.Sc.(PCM/CS) /B.Sc. Optometry
BCA (Hons.) / BCA
B. Pharmacy /D. Pharmacy
B.Sc. (Ag)
B.Sc. (Fashion / Interior Design)
B.Sc. (Health & Physical Education)
Bachelor of Education (B.Ed.)
B.A./B. Com+ LLB(integrated)/LLB

Innovative Methods for Enhancing Teaching-Learning Process

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1. The teaching-learning methodology at ITM University Gwalior is a mix of Lectures, Projects, Field trips, Simulation, Case Studies, Experiments, Role Plays, Industry-Visits, Moodle etc.
2. Curriculum of different courses is developed by a committee comprising of senior professors from the best Institute and experts from top Industries.
3. Project Based Learning (PBL) system is a student-centered pedagogy. It is a dynamic approach to teaching in which students explore real world problems and challenges.
4. The core idea of Project Based Learning is that the real-world problems capture students' interest and provoke critical thinking as the students acquire and apply new knowledge in a problem-solving context.
5. ITM University is following Activity Based Continuous Assessment System (ABCA). All programmes are offered using Choice Based Credit System, Multiple Entry & Exit options and Semester/Trimester system.

Innovative Methods for Enhancing Teaching-Learning Process

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6. IDEAPAD (A business incubator)

- Facilitate ideas ("ideation")
- Accelerate implementation speed of Ideas
- Offer more "hand holding" than a typical venture capitalist in the process.
- Give access to expertise in marketing, operations, human resources, technical, management, strategy, business development, financial, and others
- Facilitate business development and partnerships
- Facilitate sources of funding, now and at later stages

7. Holistic Development by participation in Co-Curricular Activities / Extra-curricular / Sports /Seminar / Conferences /Workshops

Innovative in Improving the Administration of Institution

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- The University has evolved a smart ICT based system to administer various processes like HR, Appointments, Admission, Library, Record Keeping, internal communication, meetings.
-
- We work on three e-platforms viz., Management Information System (MIS) for Mentoring , Examination and Financial work.
- Student Information System (SIS) and Smart Campus (ERP Software) to offer students personal and customized academic and administrative services 24X7 hrs.
- e-Students Grievance/Suggestion

Measures for Promoting Research

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- The ITM University has maintained high standard for doctoral research about 890 research papers are published in National / International Research Journals. The ITM University has applied for 10 patents and 04 copyrights.
- University has established PC Ray centre for Research with sophisticated equipment.
- University has introduced research activities at UG level to inculcate critical thinking and creativity.
- Various research projects are funded by Department of Science & Technology (DST), India, Department of Biotechnology (DBT), India, All India Council for Technical Education (AICTE) India, M.P. Council of Science & Technology (MPCST), MP and IUAC, New Delhi.

Measures for Promoting Research

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Following steps are taken by the University to create excellence in research ambiance and to motivate faculty and students to achieve greater heights of excellence in their pursuits:

- By recognizing Research contribution as a part of API (Academic Performance Index) for appointments, Promotion and annual increments.
- Provision of Incentives/recognitions to faculty member/Students who publish papers in reputed high impact journals by relaxation in teaching/administrative load and providing financial support.
- Provision of annual awards to faculty members who have published their work in high impact journals.
- Provision of special academic leaves for participating in the research workshops, post doctoral works at universities and lab of International repute.
- Provision of providing academic leave for participation and presenting papers in conference, symposium, seminar.
- Financial support to faculty member to present their paper in conference in abroad.
- Provision to provide seed grant to initiate research in interdisciplinary thrust areas to develop a research project leading to publications and deepening their research experience.

Major Efforts at Involving with the Community for Improving Livelihoods

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National Service Scheme (NSS)

To promote students' participation in community service, the university is running National Service Scheme. The Motto of NSS is "NOT ME BUT YOU".

National Cadet Corps (NCC)

NCC is the organization to install the values of "Unity and Discipline"- the Motto of the National Cadet Corps. N.C.C. has three wings Army, Navy and Air Force. Following wings have been operational at the University since July 2014

SPIC MACAY

The society for the promotion of Indian Classical Music and Culture amongst Youth, popularly known as 'SPIC MACAY'. It is involved in promoting Indian classical music, dance and other aspects of Indian culture.

Major Efforts at Involving with the Community for Improving Livelihoods

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- The ITM University provides Promotive, Preventive and Restorative health services in line with the National Health Policies and programmes.
- A 24x7 hrs. health support is available in form of an OPD in the campus with a resident doctor, support staff and bed facility.
- A dedicated ambulance is also available in the campus to assist in discharging medical duties of OPD.
- Adopted nearby villages to implement healthcare programmes / awareness drives / farmers trainings.

Imparting Digital Education

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"CELEBRATING DREAMS"

- The ITM University has digital library facility for students and faculty. University is also member of National Digital Library of India (NDL)
- NPTEL online lecture are available in ITM University Library.
- The ITM University has free open source software lab for students and faculties. This lab is also available for nearby surrounding institutions.
- ITM University students have designed the mobile apps for submission of assignments and study materials and technical training.
- The online curses MOOCs are also available in the University.



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Thanks

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Activities based on syllabi of particular subject (Any 3)

- Application Based Activity (Minimum in 03 subjects in Semester)
- Seminar Presentation (Maximum in 02 subjects in Semester / SoB as per requirement of subjects)
- Review Paper / Articles (Minimum in 01 subject in Semester)
- Poster Presentation
- Case Writing
- Open Book Test / Quiz (01 subject in Semester)
- Framing of Relevant Questions
- Projects aligned from initial semesters (As per requirement of courses from 2 & 3 semesters) through BoS.

Outcome of ABCA:

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- **Publications:**
  - ✓ 01 Publication Annually–Assistant Professor Level
  - ✓ 02 Publications Annually- Associate Professor / Professor Level
    - Based on PBL (40% Interdisciplinary PBLs)
    - Based on Reviews of Research Papers
- **Outcome projected from Interdisciplinary Research Based Activities:**
  - Patents
  - Consultancy
  - Products

Evaluation of Marks for Progressive Evaluation:

Regularity in practical classes

Experiment conduction during labs (01 Mark for every experiment

Practical Record (file or Journal)

Unique Experiment Design & Development / Application of Experiments (Student in Groups)

Evaluation Marks for Internal Viva Voce:

Internal Viva Evaluation (Based on practical classes)

PBL (Project Concept, Design, Project Analysis, Progress of Project) / Application Based Activity

Prof. Dr. Kamal Kant Dwivedi
Vice-Chancellor

The ITM University Gwalior is emerging as a vibrant seat of higher learning in Central India. It is a multidisciplinary University with an international reputation for the quality of its research and teaching across the academic spectrum. The University has received more than 20 awards and ranked 32nd in Management and 58th in Engineering respectively under National Institutional Ranking Framework (NIRF) in 2016. The University offers courses in Engineering, Management, Pharmacy, Commerce, Agriculture, Architecture, Computer Applications, Teacher Education, Art & Design, Physical Education, Sciences, Law, India & South Asia Studies, Nursing, Journalism & Mass Communication, Humanities etc. The Core Values of this University are derived from its engagements with high quality teaching and excellence in research.

Innovative teaching-learning Eco-System: Since inception, the ITM University Gwalior is focusing on innovative teaching-learning processes involving innovative project based learning (PBL) and activity based continuous assessment (ABCA) system. ITM is the first University in the country to implement such student centric pedagogy. In a few selected programs, the University has implemented Center of Excellence concept to specially groom the students with spark to enhance their employability. 'IDEA-Pad' is a uniquely conceived activity of ITM University aimed at infusing entrepreneurial skills amongst students thereby empowering them to emerge as job-givers rather than job-seekers. In last two years, 14 ideas have been converted into ventures with turnover above a crore. The University also lays high priority to sports, extra- and co-curricular activities for holistic development of students. We have provided Moodle platform to students for more efficient and flexible learning eco-system.

Innovations in Administrative Processes: The University has evolved a smart ICT based system to administer various processes. We use MIS for most of the processes of HR, appointments, admission, examinations, library, meetings, seminars, assignments, record-keeping, internal communication and grievances etc which are online, interactive and transparent.

Promotion of Research: In last 5 years, the University has maintained high standards for doctoral research. About 890 research papers are published in National and International research journals. University faculty has also obtained several Patents for their research and were awarded 21 externally funded research projects. The University has established 'P.C. Ray Center for Research' with sophisticated equipment. We have introduced research activities at UG level to inculcate critical thinking and creativity in students.

Augmenting Third Dimension – Community Services: The ITM University Gwalior is committed to serve the society not merely by promising in our mission and objectives but through our programs on ground. The University has active NSS and NCC wings for both boys and girls. We have adopted nearby villages to implement health care programs, awareness drives, Farmers training camps and Melas etc. We organize free medical check-up and treatment for community people in our University hospital. Our students have created several NGOs which are active in Gwalior and beyond.

Imparting Digital Education: Digital Technology is emerging as a very powerful enabling platform for nearly everything connected with teaching-learning. In our teaching program we use OER, Moodle, LMS and specially designed Mobile App viz. SAARTHI for enhanced learning and skill development. The University is open to adapting best practices and experience based innovative practices for effective teaching. NPTEL and MOOCs are extensively used by our students as these are well integrated in our regular teaching programs.

Write-up on the thoughts regarding suggested points

Prof. Bhuvnesh Sharma

Vice Chancellor

Maharishi Mahesh Yogi Vedic Vishwavidyalaya, M.P.

The teaching and learning process involves the consciousness of the teacher and learner. Somehow in the field of Education Till now the emphasis is on developing the means of information without providing the teachers and students the proven techniques to explore the Sub Consciousness to enhance the ability of students to learn, comprehend and apply the knowledge gained in proper context and making teaching a joy for the teacher.

Besides the practice of Yogic Technique of Transcendental Meditation by the students and Faculty, Consciousness based teaching methods should also be adopted.

This will not only enable students to efficiently use the modern technologies but they will be able to use the knowledge Holistically being tuned to the Totality of all the laws of nature within their on silent Transcendental level of Consciousness.

The administration will then naturally be based more on Conscience of the administered so that laws will be followed smoothly and the administrative laws will also be based more and more in tune with the Laws of Nature which administer the whole universe in perfect order.

As far as research is concerned the researches have not to be only based only on physical manifested level of nature but the

researchscholarsshould be trained to explore the sub- Consciousness and also the Vedic Literaturehaving the great insights of the Great Sages of Indiafrom time Immemorial should be studied to explore the Holistic knowledge in different fields of life. The approach of modern Science is partial and limited giving progress but also creating problems for individual and the environment while Vedic Technologies are Holistic, good for the individual, for the society and for the whole environment.

Indian Culture has always been Innovative and provider of perfection in life. Even the Pauranic stories have great scientific knowledge hidden in them. The tradition of Master disciple relation with dedication, devotion and practical application of knowledge was producing scholars living life blissfully and creating peace in society. They were having ability to make right decision spontaneously. By applying Vedic technologies and practice of Transcendental Meditation and TM Siddhi program not only the students will have values in life, good health and success in their lives but also our Colleges and Universities will become Peace creating centers for the whole world through the field effect. Now the time has come to use modern technologies in context of Vedic technologies, which will make the Indian Universities to lead the world.

If provided an opportunity it will be my joy to come and elaborate on the above suggestions through power point presentation and other relevant literature.

Prof. Bhuvnesh Sharma
Vice Chancellor
Maharishi Mahesh Yogi Vedic Vishwavidyalaya, M.P.

National Convention on Digital Initiative for Higher Education
8-10, July 2017

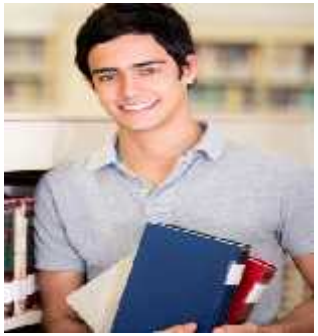
Presentation: Oriental University, Indore



1. Vision

- To carve-out the University as a distinctive global university with strong linkages with national and global stakeholders particularly business and foreign universities and meeting the national needs consistent with holistic approach to prepare human capital with integrity embodied with values, balanced mindset combined with economic and service approaches to contribute to the sustainable development of India.

Human Resource to Human Capital: Supply Chain



Bridge Courses

Entrepreneurial Skills

Industry & Community: Conventions & Webinar

Input: Human Resource: Schools & Colleges Awareness, Assistance

Core: Teaching, Research& Publications

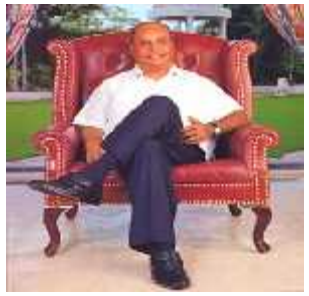
Knowledge: Creation& Application

Output: Human Capital: Graduates with entrepreneurial, Soft, ethical and Networking Skills

Soft& Ethical Skills

Student Research & Publications

Community Outreach



1. Teaching& Learning

- Teaching: Environment, Resources, Pedagogy
- *720^0* Student Inclusiveness, Engagement and Development- Internationalization
- *720^0* Faculty Inclusiveness, Inspiration, Engagement, Recognition and Development
- Teacher –Manager -Global Teacher:Exchange
- Courses: Relevance, Standards, and Quality
- International Collaborations
- Non-Conventional Sources of Funds: Research
- Sustainable Environmental perspective

Teaching& Learning (Contd.)

- Learning: Environment, Resources, Pedagogy
- Inquest students
- Flipped Learning and MOOCS.
- Critical Thinking, Creativity, Flexibility
- Class: Variety of Pedagogy, Joint Teaching, Teaching by demonstration- Animated Labs

Student Engagement

- Spiritual Gurus' Presentations.
- Social Entrepreneurs' Presentations.
- Exclusively Women Entrepreneurship centre.
- Start-Up/ Incubation Centres within University
- Assist the local entrepreneurs through Start-up and Stand-up programs
- Entrepreneur Assistance centres by coordinating various government and NGOs.
- Psychological Couselling., Career Counselling.
- Personal Financial Planning.
- Health Centre.
- ***I-Pads with Learning Resources with the assistance from business.***

Unique Courses

- *Hybridization of Courses: Data Science& Predictive Analytics and similar niche domains.*
- *Buffet Approach/ Multi-disciplinary approach.*
- *Master Courses by Research.*
- *Technology & Sciences, Humanities, Creative Arts Disciplines*
- *Industry, Entrepreneurship and Community: Due Emphasis-Practice based*
- *Flexible Courses, Bridge Course in English Language, Foreign Languages.*

Unique Courses

Sustainable Development,

Developmental leadership

Entrepreneurship , Innovation and Change.

Law in International and Corporate Laws

Customer Analytics

Supply Chain Analytics

Finance Analytics

Data Science, Data Analytics,

Multi-Disciplinary Bachelor, Diploma and certificate courses

2. Innovations in Administration

- *Multi-skills*
- *ICT skill training*
- *Training programs in Soft Skills*
- *Diploma and certificate programs*
- *Welfare programs*
- *Workshops for continuous interactive development*
- *Involvement in various academic and administrative areas*

Administration: Non-Conventional Funds for Student and Staff Development

- *Attract foreign students.*
- *Corporate Linkages*
- *Consultancies.*
- *Assistance from Alumni Association.*

3. Research

- Research culture: Incentives, promotion requirement, salary increase….
- Use of research results in teaching
- Collaborative research: Senior and Junior Teachers, National and international
- Collaborative International Research and Conferences
- Consultancy and use its findings and results in teaching, Funding agencies
- Top-down and bottom-up research
- International and team research and publications
- Action Research-DBA, Ph.D in Technology, Multi-disciplinary research

4. Community Outreach

- *Women in Engineering and IT*
- *Financial Inclusiveness*
- *Capital Accumulation and Investment*
- *Digitalization*
- *Health and Sanitation*
- *Legal and Security*

Community Outreach

- *Entrepreneurship& Support*
- *Interpersonal Relations and Community Harmonization*
- *Little Courses*
- *Politician-Customer Service*

5. Digital : Academic& Administration

- *Paperless - Process automation using ERP*
- *Course management tools: Learning Management & Content Management Systems*
- *Virtual Teaching, Learning & Assessment*
- *Digital Library and content resources, Animated Labs, Creative and Interactive learning tools*
- *Collaboration: Share learning resources and conduct virtual conferences and research*
- *Internet of Things and SMAC: Social, Mobile, Analytics and Cloud*

Digital : Academic& Administration (Contd.)

- *ICT used from enquiry (by college students and for their development) to Alumni coming back to University stage. This includes in all throughput stages continuously.*
- *ICT used in all areas including teaching, learning, real-time teaching and practicals, assessment, administration, community outreach, research, consultancy, publications, social and cultural programs, sports and all other co- and extra-curricular activities.*

Oriental University, Indore

Vision: To carve-out the University as a distinctive global university with strong linkages with national and global stakeholders particularly business and foreign universities and meeting the national needs consistent with holistic approach to prepare human capital with integrity embodied with values, balanced mindset combined with economic and service approaches to contribute to the sustainable development of India.

Teaching and Learning: Our innovative methods of teaching and learning include: environment, resources, pedagogy, 720^0 student inclusiveness, engagement and development, internationalization, 720^0 faculty inclusiveness, inspiration, engagement, recognition, teacher – manager -global teacher exchange, international collaborations, creation of learning environment, resources, pedagogy and students' inquest, flipped learning and MOOCS, imparting critical thinking, creativity, flexibility, joint teaching, teaching by demonstration, animated labs, spiritual Gurus' presentations. social Entrepreneurs' presentations, entrepreneurship centre, incubation centres, psychological couselling, career counseling, personal financial planning. health centre, I-Pads with learning resources with the assistance from business.

Unique Courses: Measures of unique courses include hybridization and buffet approach, and multi-disciplinary approach. Some of the unique courses include: Sustainable Development, Developmental leadership Customer Analytics and Supply Chain Analytics.

Administration: Innovative administrative measures include attract foreign students, corporate Linkages for scholarships etc., consultancies, and assistance from alumni association.

Research: Innovative research measures include: Creation of research culture like incentives, promotion requirement, salary increase, use of research results in teaching, collaborative research, research in community outreach programs, internationalisation of research and action research.

Community Out-Reach: Community Outreach measures include: encourage women in Engineering and IT, financial inclusiveness, capital accumulation and Investment, digitalization, health and sanitation, community harmonization, politician-customer Service etc.

Digital : Digital measures include: Paperless office, process automation using ERP, course management tools, learning management and content management systems, virtual teaching, learning and assessment, digital library and content resources, animated labs, creative and interactive learning tools, collaboration, share learning resources and conduct virtual conferences and research. ICT is used in all areas including teaching, learning, real-time teaching and practicals, assessment, administration, community outreach, research, consultancy, publications, social and cultural programs, sports and all other co- and extra-curricular activities, internet of things and SMAC.

AMITY UNIVERSITY

National Convention

on Digital Initiative for Higher Education

8th-10th July 2017

A) INNOVATIVE METHODS FOR ENHANCING TEACHING - LEARNING PROCESS

• Use of power point and over head projector (OHP) for teaching. All classrooms have OHPs installed.

• Conduct of Seminars/Workshops being attended by diverse profile of students from different programmes to encourage inter-disciplinary learning.

• Conduct of debates, group discussion, case studies to encourage learning.

AMITY UNIVERSITY

•Conduct of educational tours and visits for practical training.

• Guided Self Study Course for weak students on Saturday/Sundays/Holidays.

AMITY UNIVERSITY

- University has a very unique real time 24x7 interactive portal called **"Amizone"** (Amity Internet Zone)
- Attendance is regularly marked after every class immediately by every faculty on Amizone.
- Time table is uploaded and updated regularly on Amizone.
- Course contents are uploaded in the form of PPTs, PDFs, Word file, Videos etc. regularly on Amizone.

AMITY UNIVERSITY

- Exam results and mark sheets are made available on Amizone.
- The Summer Internship projects, dissertations, term projects of students are tracked on Amizone.
- At the end of each semester the feedback from students is taken on Amizone.
- Biometric machines are mapped with Amizone to track attendance of hostellers, staff and day scholars.

AMITY UNIVERSITY

- The faculty uploads session plans and home assignments.
- The students can write their suggestions/complaints on Amizone.
- Fee can be deposited by the students on Amiozne.
- Admission process has been completely automated through Amizone.

AMITY UNIVERSITY

B) INNOVATIONS IN IMPROVING THE ADMINISTRATION OF INSTITUTIONS

We have a dedicated water treatment plant.

- Rain water harvesting system is installed in the campus, which has been applauded by the Honourable High court of Madhya Pradesh.
- Water softener plant is installed in the campus.
- Action has been initiated for installation of solar panels at the campus.
- LED lights are installed all across the campus, including hostels, to save energy.

AMITY UNIVERSITY

- Proper signage and security, backed by Eighty Five 24*7 CCTV cameras.
- Well fenced boundary wall for 102 acres of University land.
- Single entry system with boom barriers.
- Biometric machines are installed at all the blocks and hostels in the campus.
- 24*7 ATM and 24*7 Ambulance service available at campus.
- Stationary shop, Cafeteria, Gym, TV rooms and Mess services available for students.
- Huge playground with ultra modern sports complex for students and faculty members at campus.

C) MEASURES FOR PROMOTING RESEARCH

- Independent department called Directorate of Research is functional in the University.
- All departments are having Research representatives called Research Engines and Research Persuaders. They are working for the cause of development of Research in their respective departments and are directly reporting to the Dean-Research.
- Special incentive schemes have been formulated for motivating the Faculties for doing good research.

AMITY UNIVERSITY

- Due weightage is given to research component during annual faculty appraisals and promotions.
- Research papers publication has been made compulsory for all Research Scholars pursuing their Ph.D. programs.
- Credit is given only for publications in SCOPUS/WoS/SCI indexed journals.
- Monthly research review meetings are held with all Head of Institutes and HoDs to review the progress.
- Two Journals, recognized by UGC being published by the University.
- 3 Funded Projects completed and 2 are ongoing. In addition 27 submitted to various funding agencies and are under evaluation.

AMITY UNIVERSITY

D) MAJOR EFFORTS AT INVOLVING WITH THE COMMUNITY FOR IMPROVING LIVELIHOODS

- Two NSS units of 100 students each at campus.
- Nearby village adopted by NSS volunteers.
- Blood donation camps organised every year.
- Amity University Madhya Pradesh is running a unique course module called SAP (Social Activity Programme) for socially and economically deprived population. Through SAP we enhance the employability of youth by imparting trainings like computer literacy, financial literacy, health and hygiene awareness.

AMITY UNIVERSITY

- Amity University focuses on skill based education and entrepreneurship development programmes.

- Amity University Madhya Pradesh provides skill based training programmes to industry and academic institutions.

E) IMPARTING DIGITAL EDUCATION

- NSS students of Amity University provided digital education training to different groups of society at the time of demonetisation.
- Cash transactions are discouraged at Amity University.
- TDS is followed for all payments at University.

AMITY UNIVERSITY

- The entire University campus is Wi-Fi enabled.
- Amity University is using Amizone as a digital platform to connect students, faculty members and parents to enhance the teaching learning experience of all the stakeholders.

AMITY UNIVERSITY

Thank You

AMITY UNIVERSITY
MADHYA PRADESH

Write up on: National Convention on Digital Initiative for Higher Education to be held on 8th-10th July 2017

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National Convention on Digital Initiative
for Higher Education Digital Initiatives By :

Charotar University of Science and Technology (CHARUSAT)
CHARUSAT Campus, Changa - 388 421, Anand, Gujarat

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1. SWAYAM

It is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all. CHARUSAT has introduced many MOOCs courses through SWAYAM platform of Government of India for the benefits of the students.

2. National Digital Library (NDL)

NDL is a pilot project of Ministry of Human Resource Development, Govt. of India, developed by IIT Kharagpur. NDL is a virtual repository of learning resources with a single-window search facility. As on today in CHARUSAT 184 staff members have been registered on NDL portal. Other have informed by mail.

3. FREE AND OPEN SOURCE SOFTWARE CLUB, C S PATEL INSTITUTE OF TECHNOLOGY (FOSS – CSPIT : Constituent of CHARUSAT)

- **Primary Objectives**: The club have following primary objectives

✓ Awareness to the open source technology
✓ Open Source Resource utilization to meet industry demands.

- **Activities**:

✓ To undertake remote workshop series offered by IIT, Bombay at free of cost under FOSSE program.
Details can be referred at http://fossee.in/ and http://spoken-tutorial.org/
✓ To invite industry personnel to provide technical inputs to enhance open source learning to aid in students' employability

4. INNOVATIVE STYLES IN TEACHING LEARNING

Teachers use learning styles and multiple intelligences in their classrooms wonder how important it is for students to know about these models. Experience has taught us that students who understand the models are better able to understand their own learning profiles, to develop flexibility and adaptability in their thinking, and to set realistic goals about minimizing learning weaknesses and maximizing strengths. University follows ICT Based Learning, E-learning, and Blended Learning

This suite of online secure tools includes:

Blog	Calendar	Checklist	Content
Discussions	Dropbox	Email	ePortfolio
Grades	Journal	Locker	News
Pager	Progress	Quizzes	Survey

5. PEDAGOGICAL INNOVATIONS

Some strategies are better suited to certain student backgrounds, learning styles and abilities. So every teacher is allowed to bring innovation in pedagogy which is best for his subject.

The Teaching Method and Pedagogical Innovations Adopted

- ✓ Extensive use of **audio-visual aids**
- ✓ Extensive and intensive **pre-classroom preparation** by the faculty members
- ✓ **Online tests** are conducted as per the requirement of subject.
- ✓ Digital Dashboards / interactive white boards
- ✓ Overhead Projector
- ✓ Multimedia content
- ✓ Real time things
- ✓ Innovative assignments and Projects
- ✓ Industrial Visit and Workshop from Industries
- ✓ Presentations
- ✓ Case Studies
- ✓ Expert Interaction
- ✓ Professional Certification
- ✓ Online Quizzes

6. INNOVATION IN TEACHING-LEARNING

University uses all these technologies for teaching – learning purposes

- ✓ Google Classroom
- ✓ Moodle
- ✓ Edmodo
- ✓ MOOC's
- ✓ NPTEL online courses
- ✓ **Thinkers lab**

7. EGOVERNANCE

Objectives of E-Governance:

- ✓ To increase efficiency of human resources.
- ✓ Enhanced student – faculty relationship.
- ✓ Transparency in the functioning.

Modules*:*

The following are the modules of the E-Governance. These modules are also inter-connected with each other to get desired decision making outputs.

1) Student Enrollment System
2) Student Information System
3) Student Attendance System
4) Resource Management System
5) HR Management System
6) Academic Information Management System
7) Online Project Reporting System
8) Time Table Management System
9) Feedback Management System

10) Result Management System
11) Departmental Activities System / Event Management System
12) General Record Keeping System
13) Online Exam System

8. CHARUSAT MOBILE APPLICATION

CHARUEMP is an arbitrary version of E-Governance system of CHARUSAT. The main focus of the system is to provide remote access to the intranet based E-Governance system of the university

Features of Application

1) Employee Leave Management
2) Principal / Head Leave Approval
3) Salary Information
4) Employee Attendance (Day wise in-time, Out-time)
5) Teaching Staff Schedule (3 Days)
6) University Examination Result (Student Login)
7) Student Attendance (Teacher can fill directly in mobile / Student can view the attendance)
8) Time table (3 Days, Student login)
9) Fees Status (Student Login)

9. A COMPREHENSIVE VIDEO-BASED LEARNING PLATFORM (IMPARTUS)

CHARUSAT has implemented Impartus software. Impartus provides innovative video-enabled learning solutions that drive better outcomes for the higher education sector. The Impartus product suite offers easy, seamless integration to help educators extend learning experiences outside of the classroom and provide relevant content to a diverse body of students around the world.

LIST OF INTERACTIVE FEATURES:

- ✓ Searchable Videos
- ✓ Tap-To-Toggle
- ✓ Video Bookmarks
- ✓ Notes
- ✓ Hand-Raiser
- ✓ Post-Editing

10. E-LIBRARY - R K PATEL KNOWLEDGE RESOURCE CENTER

- ✓ E Journal Packages
- ✓ E Resources Access Center
- ✓ Reprography
- ✓ Internet Access
- ✓ e-Newspaper Services
- ✓ Bibliographical details of CBT's accompany with books and journals, Project Report Back Volumes and University Question Papers in electronic format.
- ✓ FEDGATE : Federated searching tool to search articles in multiple databases
- ✓ WEB OPAC : CHARUSAT Library Website
- ✓ Ezproxy : In-house/remote access to e-publications
- ✓ SOUL : Library automated using SOUL software up to 2 module (Catalogue & Transaction)

- ✓ Internet Access : Wi-Fi internet connectivity with 200 mbps
- ✓ DSpace : Institutional Repository to maintain Research Paper/s and CHARUSAT Publication
- ✓ NPTEL Video and Web Lectures on INTRANET
- ✓ Institutional Membership : INFLIBNET, DELNET, IIMA ,AMA
- ✓ Inter Library Loan through DELNET

11. CHARUSAT –DSpace

It is the repository of research papers / publications of all faculty members of CHRUSAT. The DSpace Project will produce the world's choice for repository software providing the means for making information openly available and easy to manage

12. ONLINE FEEDBACK SYSTEM:

CHARUSAT has its own online feedback system where students give feedback of teachers.

13. CAMPUS CONNECTIVITY (LAN/WAN)

CHARUSAT Campus houses 14 physical buildings and all of these buildings are inter connected in network RING with Fiber-Optic connectivity for efficient backbone connectivity. Each building is having its own LAN which is managed by high end Cisco manageable layer3 and layer2 switches. Approx 3200 computer systems are scattered across the campus and the monitoring and management is controlled centrally at Datacenter.

14. Internet Connectivity

Campus WAN is connected through 240Mbps lease line connectivity with BSNL. To provide robust backbone BSNL has implemented RING fiber connectivity for low latency and high bandwidth availability. The campus is protected with high-end firewall with High Availability (HA). This 240 Mbps internet bandwidth is distributed amongst staff, students for their academics.

15. CLOUD / HPC

Campus Data Centre is having Cloud ready environment with HP blade servers and the management is carried out with VMware technology which controls almost 65 departmental as well as institutional central servers. The SAN storage capacity of the cloud is 36 Tb. Two numbers of High Performance Computing setup (HPC) are commissioned at datacentre which state of the art technology for any academic institute. Various projects of parallel computing is escalated on this infrastructure.

16. LIVE STREAMING

In case of any events as well as occasions the live streaming is carried out with latest infrastructure and thus the event is spread to large numbers of viewers across the globe.

17. VIDEO CONFERENCE

To utilize the unique and ultra-modern digital communication technology, professional video conferencing devices are made available which are also used to share expertise of CHARUSAT campus as well as remotely located other scholars.

18. DIGITAL SIGNAGE

Every institute of the campus is provided with digital notification facility – Digital signage. With this the information and notices are smartly broadcasted on the TV sets at selected locations across the campus. Info-klick software is deployed at datacenter which carries out digital notification.

19. Wi-Fi

CHARUSAT campus is Wi-Fi since 2006. High end Ruckus access points and controller are commissioned to provide uninterruptible and adequate Wi-Fi internet bandwidth for students and faculty members. It is also provided with due security to avoid threating intrusions. This facility which is absolutely free and the availability is 24X7.

20. CCTV

The whole CHARUSAT campus is under constant surveillance with the help of about 500 CCTV HD cameras. In certain crucial areas night vision cameras also planted and the whole CCTV network is managed centrally at datacenter. To avoid any malpractices, exams are monitored using this infrastructure and the backup is stored in FIFO mode with motion sensing cameras.

21. Social Networking

The use of social networking sites such as MySpace, Facebook, You Tube, Twitter, Flickr etc. have become increasingly usage in our university. The use of technology for educational purposes is an important part of the work of students, teachers and trainee teachers. However it is imperative that such websites are not abused.

CHARUSAT have personal page on Facebook for its daily updates. We request all the quires related to university through Facebook page and concern staffs are working on it.

22. CENTRALIZED DATABASE SYSTEM

Following Information of faculties are recorded in Centralized Database system

- Faculty Journal Publication
- Faculty Conference Publication
- Faculty Book/Chapter Publication
- Faculty Magazine/Article Publication
- Faculty Patents
- Faculty Award Received
- Faculty Talks Delivered
- Faculty Participation in Training & Events

National Convention on Digital Initiative - Brief write up about the initiative taken regarding this by Chitkara University, Himachal Pradesh

1. Chitkara University, Himachal Pradesh has its own ERP Portal. This portal is serving all academic and examination requirements of the University. It is a paperless University and every information about its students and staff is available electronically. All activities of Learning Resource Centre are computerized, including bar-coded ID Cards and separate On-line Public Access Catalogue (OPAC) terminals to know the status of books at any time.
2. Facilities like online fee payment, digital library, downloading of grade card as well as study resources etc. from University portal are in place since its inception.
3. Chitkara University, Himachal Pradesh is registered on National Digital Library (NDL) platform integrated by IIT Kharagpur. Around 100 faculty members and 1500 students are added as users on NDL portal (**At present we can only use resources available on this platform**).
4. To enable E-Signing of documents and make them available electronically, Chitkara University, Himachal Pradesh has initiated the registration process with National e-Governance Division (digilocker) as **issuer / requester organization** and the University officials' have also attended a workshop organized by HP Government in Shimla. After interaction with digilocker team, they recommended Chitkara University, Himachal Pradesh to integrate with **Triotech Solutions Pvt. Ltd. Triotech Solutions** (L1 Bidder for DigiLocker integration with National e-Governance Division), which is a central co-coordinating agency at National Level. ***Presently, we are approved by digital India Network as Issuer and Requester University and are in communication with Triotech Solutions Pvt. Ltd. about the hardware and software available in the University.***
5. Chitkara University, Himachal Pradesh is registered with ***Swayam*** and will offer related courses from next semester.
6. **MOOCs courses** are being offered by the University since 2013.
7. Embedded Digitization across all Departments of the University. Some of the silent features of it are:

- Procurement - Digitization of Purchase orders and Inventory.
- Information Technology - Controller based Wi-Fi system, Firewall, Authentication system for end users, latest Cisco Infrastructure, Online assessment and exams.
- Human Resources - Online job offers referral system.
- Google Classroom - Encourage the advanced use of learning (more Google apps i.e. hangout for remote session (Audio-Video))
- Cisco WebEx – for remote meetings and lectures.
- Cisco Network Academy – Digital Learning and Assessment Platform powered by Canvas and Moodle - Help to build support networks for academics who are less confident with digital technologies.
- Online Alumni network - Engage with staff, academics, students, potential students and alumni across a range of social channels, web sites and apps to deliver a personalized service that represents the university's culture
- Online progress of Admission applications - Use digital to engage with and inform applicants on progress of applications and maintain contact with applicant's after they accept and before they enroll.

8. Chitkara University is a Cashless Campus. It facilitates students, parents and vendors for online transactions.

The following are the actions taken by the University:

1 **SWAYAM - the indigenous MOOCs portal –**

In this regards, this is to inform you that Registration for MooCs courses has been done in the MooCs portal and get User-ID and Password for Online education.

2 **The National Digital Library - with more than 72 lakh digital books :**

The University has registered with National Digital Library(NDL) services of the UGC since 2016 and get benefits of digital Books in respect to enhance Research and Development activities in the University

3 **The National Academic Depository - for authenticating all he certificates issued by institutions and for authenticating them as per the need of the users. :**

The University has planned to implement the same in near future. Further, this is to inform you that Mr. Parmod Mandal , Controller of Examination of the University has attended meeting in the Punjab University, Chandigarh on 23rd June, 2017 for implementation the same in the University.

4 **SWAYAM-Prabha - the (32) Direct-to-Home channels for transmitting high quality educational content on 24X7 basis direct to every home, without any charge**

DIGITAL INTIATIVES BY CHITKARA UNIVERSITY, PUNJAB

1. Chitkara University, Punjab is registered on National Digital Library (NDL) platform integrated by IIT Kharagpur. All activities of Learning Resource Centre are computerized, including bar-coded ID Cards and separate On-line Public Access Catalogue (OPAC) terminals to know the status of books at any time.
2. ERP Portal: University ERP portal is serving all academic and examination requirements. It is a paperless University and every information about its students and staff is available electronically. Facilities like online fee payment, digital library, downloading of grade card as well as study resources etc. from University portal are in place since its inception.
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    - Marketing: Online Alumni network: Engage with staff, academics, students, potential students and alumni across a range of social channels, web sites and apps to deliver a personalised service that represents the university's culture
    - Online progress of Admission applications: Use digital to engage with and inform applicants on progress of applications and maintain contact with applicant's after they accept and before they enroll.
    - Cashless Campus: Facilitate students, parents and vendors for online transactions.

- Digitization of Degrees: Chitkara University signed agreement with National Academic Depository.
- On line Assessments: Chitkara University conduct online examinations for some of the courses using AMCAT, COCUBES, HACKER RANK etc.,

5. Massive Open Online Courses (MOOC's) are being offered by the University. Some of the courses are listed below:

Sr. No.	Course Details	Batch
1.	**Course Name:** Innovation and Commercialization **Platform:** edX **University:** Massachusetts Institute of Technology, USA **Instructor's Name:** Eugene Fitzgerald, Andreas Wankerl & Sanjay Sharma **Duration:** Six Weeks	**2014**
2.	**Course Name:** Critical Perspectives on Managements **Platform:** Coursera **University:** IE Business School, Spain **Instructor's Name:** Rolf Strom-Oslen **Duration:** Six Weeks	**2015**
3.	**Course Name:** What's Your Big Idea? **Platform:** Coursera **University:** The University of North Carolina, USA **Instructor's Name:** Holden Thorp & Buck Goldstein **Duration:** Six Weeks	**2015**
4.	**Course Name:** Creative Problem Solving **Platform:** Coursera **University:** University of Minnesota, USA **Instructor's Name:** Brad Hokanson & Jody Lawrence **Duration:** Six Weeks	**2016**
5.	**Course Name:** Effective Problem Solving **Platform:** Coursera **University:** University of California, USA **Instructor's Name:** Rob Stone **Duration:** Six Weeks	**2016**
6.	**Course Name:** Critical Perspectives on Managements **Platform:** Coursera **University:** IE Business School, Spain **Instructor's Name:** Rolf Strom-Oslen **Duration:** Six Weeks	**2016**

DIGITALIZATION AT IIMT UNIVERSITY, MEERUT, U.P.

1. Registration of IIMT University, Meerut, U.P. on NDL portal. (National Digital Library) (IIT – Kharagpur) initiative.
2. Registration at "Swayam", MHRD, Govt. of India portal.
3. MoU with Spoken Tutorial, IIT – B for software skill development.
4. M – Tutor Mobile App. use by Engineering Students for referring animated video- audio lectures confined to syllabus content.
5. Online access of MOOC from International Institutions.
6. ERP implementation within the campus.
7. Creation of software skill development cell in association with Microsoft, Google & Spoken Tutorials (IIT –B), MHRD.

Report on Digital Initiatives taken up by the University

Graphic Era Hill University (www.gehu.ac.in) was established on April 28, 2011 under Section 2(f) of the UGC Act, 1956 under the aegis of Graphic Era Educational Society, Dehradun, as a private university by the State Government of Uttarakhand.

Graphic Era Hill University has embraced innovative learning and teaching methodologies and has been involved in growth oriented digital since the beginning.

Some of the digital initiatives taken up by the University towards enhancing higher education are implementation of LMS, MOOC, Quick Learning Videos, COL and self introductory videos made by the students.

(A) Learning Management System using Moodle has been successfully implemented in the university in 2012.

(B) The integration of the **Open Education Resources (OER)** and **Massive Open Online Courses (MOOCs)** in the curriculum structure has enabled a progressive learning culture. MOOCs provide diverse courses to the students without the need of the university infrastructure, at the same time uses high quality teaching resources. These courses are very effective for the students in cultivating their self study ability and innovative ability. The university has taken the lead to make MOOC (Massive Open Online Courses) mandatory for all it's students. Since 2014, over 12000 students of GEHU have successfully registered and completed various MOOC Courses being offered by reputed Universities globally like University of London, University of California, MICHIGAN state university, Purdue University etc. to name a few.

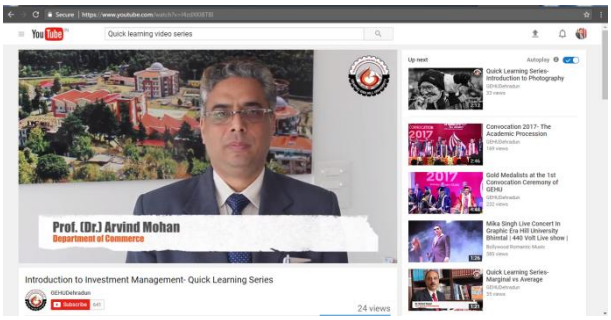
Following is the summary of MOOC based seminar conducted at GEHU, Dehradun for the academic session 2016-2017:-

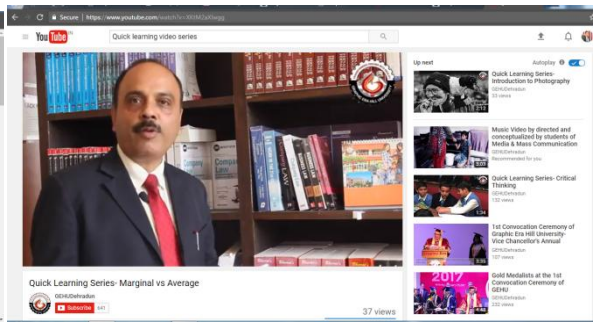
	BTECH		NON-BTECH	
	ODD SEM	EVEN SEM	ODD SEM	EVEN SEM
Total Students	1046	1064	2568	1958
Branch specific courses	785 (75%)	830 (78.6%)	2208 (86.2%)	1625 (83.6%)
General Courses	261 (25%)	234 (21.36%)	360 (13.8%)	333 (16.36%)

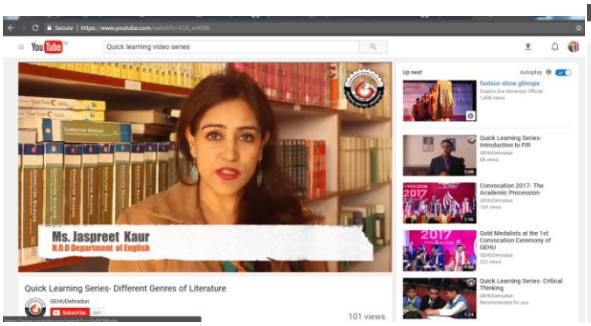
Platforms Used	Coursera = 647	Coursera = 588	Coursera = 1627	Coursera = 1178
	Edx = 312	Edx = 243	Edx = 450	Edx = 304
	Alison = 62	Open2study = 110	Open2study = 198	Open2study = 266
	NPTEL = 25	NPTEL= 123	Alison = 86	Alison = 124
			NPTEL = 207	NPTEL = 86

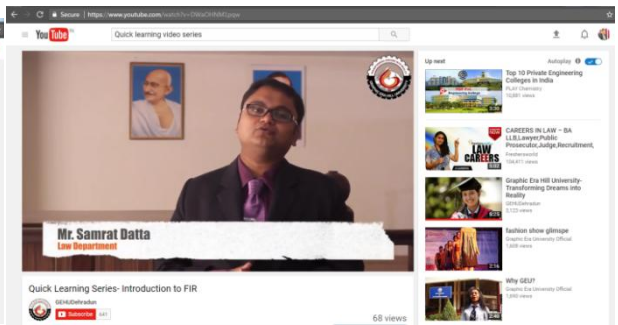
(C) While heading towards the time when technology is revolutionizing the lives, and in this age of Internet, even the teaching pedagogy has crossed the four walls of the classroom. The Mass Communication Department of university has initiated a innovative series called **Quick Learning**. This is a series of crisp, captive and condensed two minute audio video lectures that a student can access anytime, anywhere with a click of a button.

The Quick Learning series lectures are delivered by faculty members of GEHU wherein they pick a subject and divide it into micro concepts such that these short videos unite to form a complete syllabus. These videos are created by a team of students from the department of mass communication under the guidance of faculty members. So far a total 30 such videos have been created and are available online on GEHU website and its youtube channel.









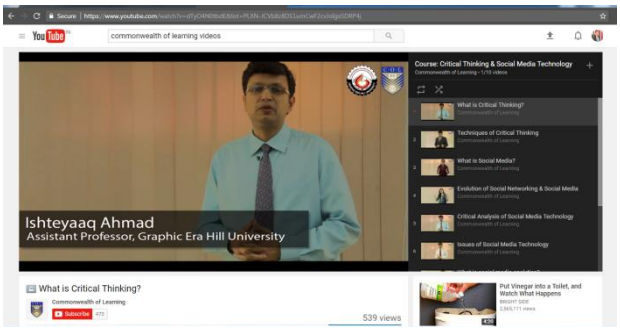
(D) Creative and innovative ideas are always encouraged at Graphic Era Hill University.

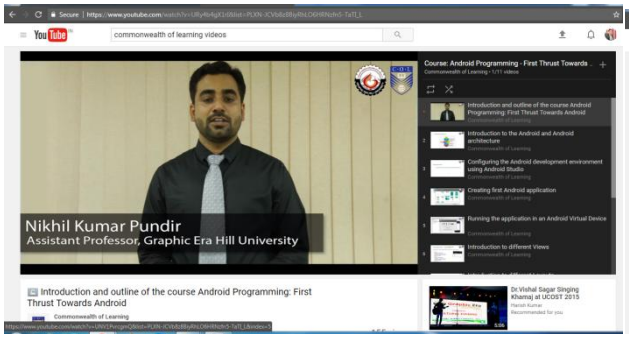
Four online courses developed for **Commonwealth of learning (COL)** is another such dynamic step taken up by the university. COL is an intergovernmental organization which promotes the development of open learning and distance education, knowledge, resources and technologies. These four online courses that have been developed by the faculty are used by the students of seventy countries. At the same time these course are also being offered as a part of the university's curriculum.

The details of the courses developed are given below:

I. Quantitative skills for competitive exams;
II. Critical Thinking & Social Media Technology;
III. Android Programming: First Thrust Towards Android Development;
IV. Biodiversity conservation certificate course.
V.









The salient features are as under:

a. Development of course material including class assignments and tutorials to be made available to the member countries of COL.
b. Soft copy of the material is available on the website of COL and GEHU.
c. Each course is supported by one hour of Videos that explain the concepts to be learnt.
d. The material developed for one of the 4 courses can also be accessed using an android application developed by the students of the university.

(E) One of the most important initiatives taken up by the university was getting a **self introductory video** made by each and every student of the University. Introducing oneself to any audience can be challenging personally as well as professionally. It plays a major role in setting up the first impression on anyone. The image matters and any perception of people about a person is in the introduction that one provides. That is why most of the candidates are any interview face the question '*Tell us something about yourself?'* These videos of self introduction prepared by the students proved to be extremely beneficial for them.

1. It gave them a chance to think about the qualities they possess and produce them in a professional manner. As some of the students lacked the content to deliver about themselves, therefore it brought the realization of working upon their strengths and weaknesses before it's too late.

2. This activity increased the confidence in the students and boosted up their ability to talk about themselves.

3. The students could hear themselves in the video, thus it helped them in improving their speaking skills. They learnt to use correct meaning and pronunciation of words and maintain eye contact with the audience.

4. The students got so much to learn in this process and this really went beyond just the traditional educational mode of learning as the student's extracted lot of benefits from this activity undertaken.

5. Through this means, our students now have access to resources that support online learning irrespective of the boundaries of time and place.

The motive of the University is not only to take up education initiatives that place increasing emphasis on digital fluency, but it also teaches the students to practice good digital citizenship. Today, it has become mandatory to teach students to be good digital citizens which require curricula, practices and policies that promote safe and responsible use of the Internet and personal technology.

Following are the details of implementation of digital devices at Invertis University, Bareilly, and U.P.

1. **Fee Payment:**

   (a) We have swipe machines where student can pay the fee.
   (b) Student can pay online their fee from the home.
   (c) Directly they can pay in our account in the bank.
   (d) We also accept cheques.

2. **Salary Payment.**

   (a) Bulk Transfer through a CD handed over to the bank.
   (b) In some cases online payment to the account of the employees.
   (c) In some cases the salary is paid by cheque.

3. **Examination Department.**

   Uploading of marks is done through Enterprise Resource Planning (ERP) software. Printing of marksheet and other materials done through ERP.

4. **Library:**

   The library is managed by the Soft Link Alice software. We have access to about 1000 research journals online.

5. **Class Rooms:**

   (a) Student's attendance is taken through ERP.
   (b) Teachers teach through power point presentation.

6. **Internet:**

    1. The whole campus is equipped with Wi-Fi facility.
    2. All the hostels and residences are equipped with Wi-Fi facility.

7. **Student's Record:-**

    Student's record is maintained through ERP.

8. **Employee's Record:**

    Employee's record is also maintained through ERP.

9. **Laboratory:**

    I certain cases where dissection of animals is required, it is done through the appropriate software as per UGC norms.

(Jagdish Rai)
Vice Chancellor
Invertis University
Phone No: +91: 9690010336

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ITM University Gwalior

(Established in 2011)

ITM University Gwalior

- ITM University Gwalior is established by the State Legislative Act of Madhya Pradesh Government under 2(f) of the UGC Act and having Right to confer Degrees/Diplomas under 22(1) of the UGC Act for its various courses.
- ITM University Gwalior is notified by the UGC vide letter No. F. No. 8-21/2011 (CPP-I/PU) dated 16.08.2011 & recognized by concerned statutory bodies of Government of India.
- ITM University Gwalior is a member of Association of Indian Universities (AIU).
- ITM University Gwalior is ranked amongst the best Universities of India by MHRD through NIRF-2016 and as Platinum Category Engineering Institute in India by AICTE-CII in 2017.

Courses

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Ph. D. in Engineering / Sciences / Management / Agriculture
M. Tech / M. Tech. (Integrated)
M. Sc. Nursing
M.Sc. Agriculture
M.Sc. Microbiology / Biotechnology / Food Technology /Physics / Chemistry / Mathematics
Master of Business Administration (MBA)
Master of Computer Applications (MCA)
B. Tech. / B. Tech. (Hons.)
BBA / BBA(H)
B. Com. / B. Com. (H)
B. Arch
B.Sc. Nursing
B.Sc. (Biotech) / B.Sc. (Food tech)/ B.Sc.(PCM/CS) /B.Sc. Optometry
BCA (Hons.) / BCA
B. Pharmacy /D. Pharmacy
B.Sc. (Ag)
B.Sc. (Fashion / Interior Design)
B.Sc. (Health & Physical Education)
Bachelor of Education (B.Ed.)
B.A./B. Com+ LLB(integrated)/LLB

Innovative Methods for Enhancing Teaching-Learning Process

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1. The teaching-learning methodology at ITM University Gwalior is a mix of Lectures, Projects, Field trips, Simulation, Case Studies, Experiments, Role Plays, Industry-Visits, Moodle etc.
2. Curriculum of different courses is developed by a committee comprising of senior professors from the best Institute and experts from top Industries.
3. Project Based Learning (PBL) system is a student-centered pedagogy. It is a dynamic approach to teaching in which students explore real world problems and challenges.
4. The core idea of Project Based Learning is that the real-world problems capture students' interest and provoke critical thinking as the students acquire and apply new knowledge in a problem-solving context.
5. ITM University is following Activity Based Continuous Assessment System (ABCA). All programmes are offered using Choice Based Credit System, Multiple Entry & Exit options and Semester/Trimester system.

Innovative Methods for Enhancing Teaching-Learning Process

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6. IDEAPAD (A business incubator)

- Facilitate ideas ("ideation")
- Accelerate implementation speed of Ideas
- Offer more "hand holding" than a typical venture capitalist in the process.
- Give access to expertise in marketing, operations, human resources, technical, management, strategy, business development, financial, and others
- Facilitate business development and partnerships
- Facilitate sources of funding, now and at later stages

7. Holistic Development by participation in Co-Curricular Activities / Extra-curricular / Sports /Seminar / Conferences /Workshops

Innovative in Improving the Administration of Institution

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- The University has evolved a smart ICT based system to administer various processes like HR, Appointments, Admission, Library, Record Keeping, internal communication, meetings.
-
- We work on three e-platforms viz., Management Information System (MIS) for Mentoring , Examination and Financial work.
- Student Information System (SIS) and Smart Campus (ERP Software) to offer students personal and customized academic and administrative services 24X7 hrs.
- e-Students Grievance/Suggestion

Measures for Promoting Research

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- The ITM University has maintained high standard for doctoral research about 890 research papers are published in National / International Research Journals. The ITM University has applied for 10 patents and 04 copyrights.
- University has established PC Ray centre for Research with sophisticated equipment.
- University has introduced research activities at UG level to inculcate critical thinking and creativity.
- Various research projects are funded by Department of Science & Technology (DST), India, Department of Biotechnology (DBT), India, All India Council for Technical Education (AICTE) India, M.P. Council of Science & Technology (MPCST), MP and IUAC, New Delhi.

Measures for Promoting Research

ITM UNIVERSITY
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Following steps are taken by the University to create excellence in research ambiance and to motivate faculty and students to achieve greater heights of excellence in their pursuits:

- By recognizing Research contribution as a part of API (Academic Performance Index) for appointments, Promotion and annual increments.
- Provision of Incentives/recognitions to faculty member/Students who publish papers in reputed high impact journals by relaxation in teaching/administrative load and providing financial support.
- Provision of annual awards to faculty members who have published their work in high impact journals.
- Provision of special academic leaves for participating in the research workshops, post doctoral works at universities and lab of International repute.
- Provision of providing academic leave for participation and presenting papers in conference, symposium, seminar.
- Financial support to faculty member to present their paper in conference in abroad.
- Provision to provide seed grant to initiate research in interdisciplinary thrust areas to develop a research project leading to publications and deepening their research experience.

Major Efforts at Involving with the Community for Improving Livelihoods

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National Service Scheme (NSS)

To promote students' participation in community service, the university is running National Service Scheme. The Motto of NSS is "NOT ME BUT YOU".

National Cadet Corps (NCC)

NCC is the organization to install the values of "Unity and Discipline"- the Motto of the National Cadet Corps. N.C.C. has three wings Army, Navy and Air Force. Following wings have been operational at the University since July 2014

SPIC MACAY

The society for the promotion of Indian Classical Music and Culture amongst Youth, popularly known as 'SPIC MACAY'. It is involved in promoting Indian classical music, dance and other aspects of Indian culture.

Major Efforts at Involving with the Community for Improving Livelihoods

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- The ITM University provides Promotive, Preventive and Restorative health services in line with the National Health Policies and programmes.
- A 24x7 hrs. health support is available in form of an OPD in the campus with a resident doctor, support staff and bed facility.
- A dedicated ambulance is also available in the campus to assist in discharging medical duties of OPD.
- Adopted nearby villages to implement healthcare programmes / awareness drives / farmers trainings.

Imparting Digital Education

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- The ITM University has digital library facility for students and faculty. University is also member of National Digital Library of India (NDL)
- NPTEL online lecture are available in ITM University Library.
- The ITM University has free open source software lab for students and faculties. This lab is also available for nearby surrounding institutions.
- ITM University students have designed the mobile apps for submission of assignments and study materials and technical training.
- The online curses MOOCs are also available in the University.



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Thanks

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Activities based on syllabi of particular subject (Any 3)

- Application Based Activity (Minimum in 03 subjects in Semester)
- Seminar Presentation (Maximum in 02 subjects in Semester / SoB as per requirement of subjects)
- Review Paper / Articles (Minimum in 01 subject in Semester)
- Poster Presentation
- Case Writing
- Open Book Test / Quiz (01 subject in Semester)
- Framing of Relevant Questions
- Projects aligned from initial semesters (As per requirement of courses from 2 & 3 semesters) through BoS.

Outcome of ABCA:

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- **Publications:**
  - ✓ 01 Publication Annually–Assistant Professor Level
  - ✓ 02 Publications Annually- Associate Professor / Professor Level
    - Based on PBL (40% Interdisciplinary PBLs)
    - Based on Reviews of Research Papers
- **Outcome projected from Interdisciplinary Research Based Activities:**
  - Patents
  - Consultancy
  - Products

Evaluation of Marks for Progressive Evaluation:

Regularity in practical classes

Experiment conduction during labs (01 Mark for every experiment

Practical Record (file or Journal)

Unique Experiment Design & Development / Application of Experiments (Student in Groups)

Evaluation Marks for Internal Viva Voce:

Internal Viva Evaluation (Based on practical classes)

PBL (Project Concept, Design, Project Analysis, Progress of Project) / Application Based Activity

Prof. Dr. Kamal Kant Dwivedi
Vice-Chancellor

The ITM University Gwalior is emerging as a vibrant seat of higher learning in Central India. It is a multidisciplinary University with an international reputation for the quality of its research and teaching across the academic spectrum. The University has received more than 20 awards and ranked 32nd in Management and 58th in Engineering respectively under National Institutional Ranking Framework (NIRF) in 2016. The University offers courses in Engineering, Management, Pharmacy, Commerce, Agriculture, Architecture, Computer Applications, Teacher Education, Art & Design, Physical Education, Sciences, Law, India & South Asia Studies, Nursing, Journalism & Mass Communication, Humanities etc. The Core Values of this University are derived from its engagements with high quality teaching and excellence in research.

Innovative teaching-learning Eco-System: Since inception, the ITM University Gwalior is focusing on innovative teaching-learning processes involving innovative project based learning (PBL) and activity based continuous assessment (ABCA) system. ITM is the first University in the country to implement such student centric pedagogy. In a few selected programs, the University has implemented Center of Excellence concept to specially groom the students with spark to enhance their employability. 'IDEA-Pad' is a uniquely conceived activity of ITM University aimed at infusing entrepreneurial skills amongst students thereby empowering them to emerge as job-givers rather than job-seekers. In last two years, 14 ideas have been converted into ventures with turnover above a crore. The University also lays high priority to sports, extra- and co-curricular activities for holistic development of students. We have provided Moodle platform to students for more efficient and flexible learning eco-system.

Innovations in Administrative Processes: The University has evolved a smart ICT based system to administer various processes. We use MIS for most of the processes of HR, appointments, admission, examinations, library, meetings, seminars, assignments, record-keeping, internal communication and grievances etc which are online, interactive and transparent.

Promotion of Research: In last 5 years, the University has maintained high standards for doctoral research. About 890 research papers are published in National and International research journals. University faculty has also obtained several Patents for their research and were awarded 21 externally funded research projects. The University has established 'P.C. Ray Center for Research' with sophisticated equipment. We have introduced research activities at UG level to inculcate critical thinking and creativity in students.

Augmenting Third Dimension – Community Services: The ITM University Gwalior is committed to serve the society not merely by promising in our mission and objectives but through our programs on ground. The University has active NSS and NCC wings for both boys and girls. We have adopted nearby villages to implement health care programs, awareness drives, Farmers training camps and Melas etc. We organize free medical check-up and treatment for community people in our University hospital. Our students have created several NGOs which are active in Gwalior and beyond.

Imparting Digital Education: Digital Technology is emerging as a very powerful enabling platform for nearly everything connected with teaching-learning. In our teaching program we use OER, Moodle, LMS and specially designed Mobile App viz. SAARTHI for enhanced learning and skill development. The University is open to adapting best practices and experience based innovative practices for effective teaching. NPTEL and MOOCs are extensively used by our students as these are well integrated in our regular teaching programs.



University Online

Overview and Functional Capabilities

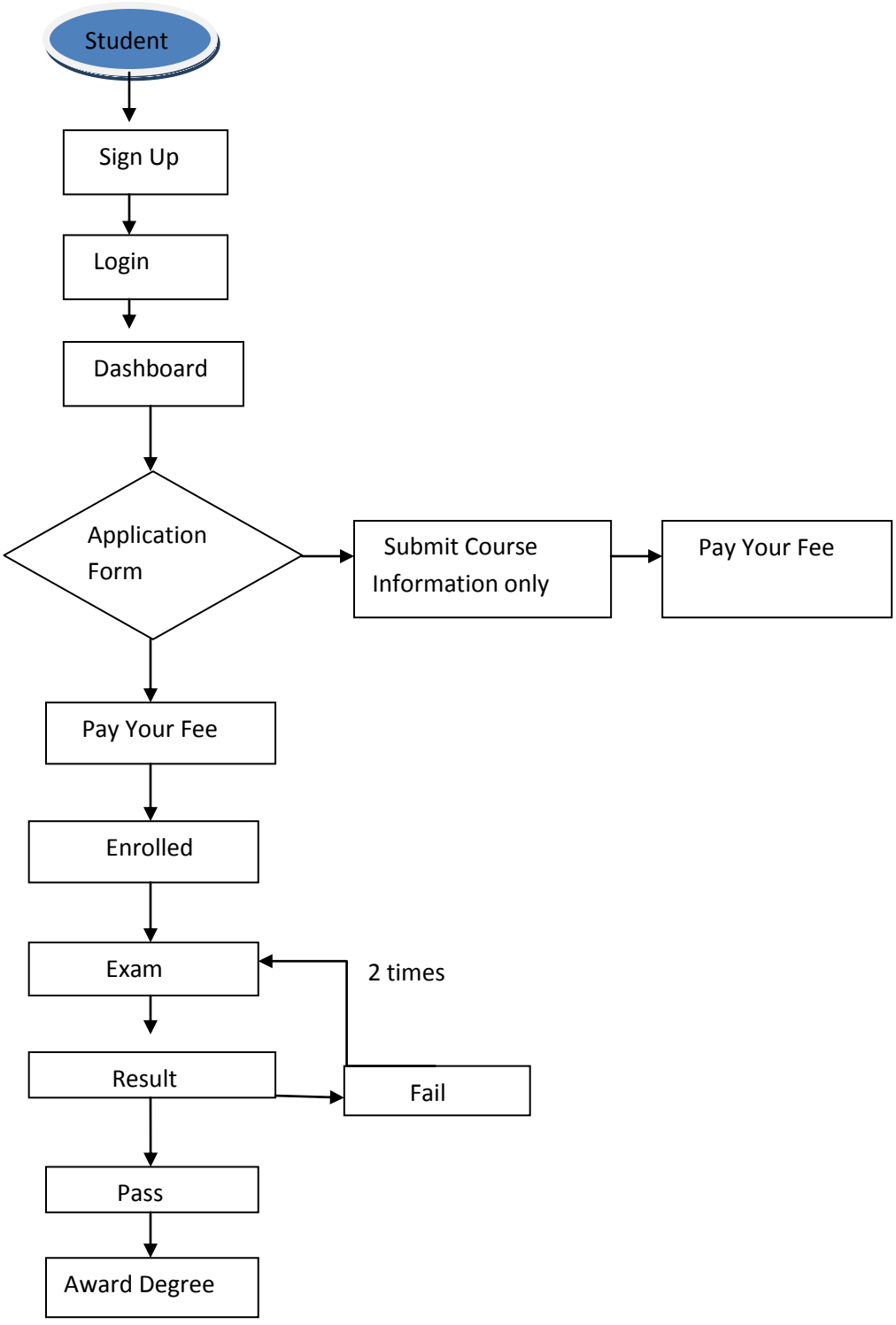
Functional Requirement Specification

1. Description of modules and functional requirements:

The University Online Learning (UOL) website will be divided into following modules:

- New Sign Up
- Student Login
- Dashboard
- Complete Application Form
- Pay Your Fee
- My Resource
- How To Fill Up Form- Guidelines
- Download Text For Affidavit
- Settings

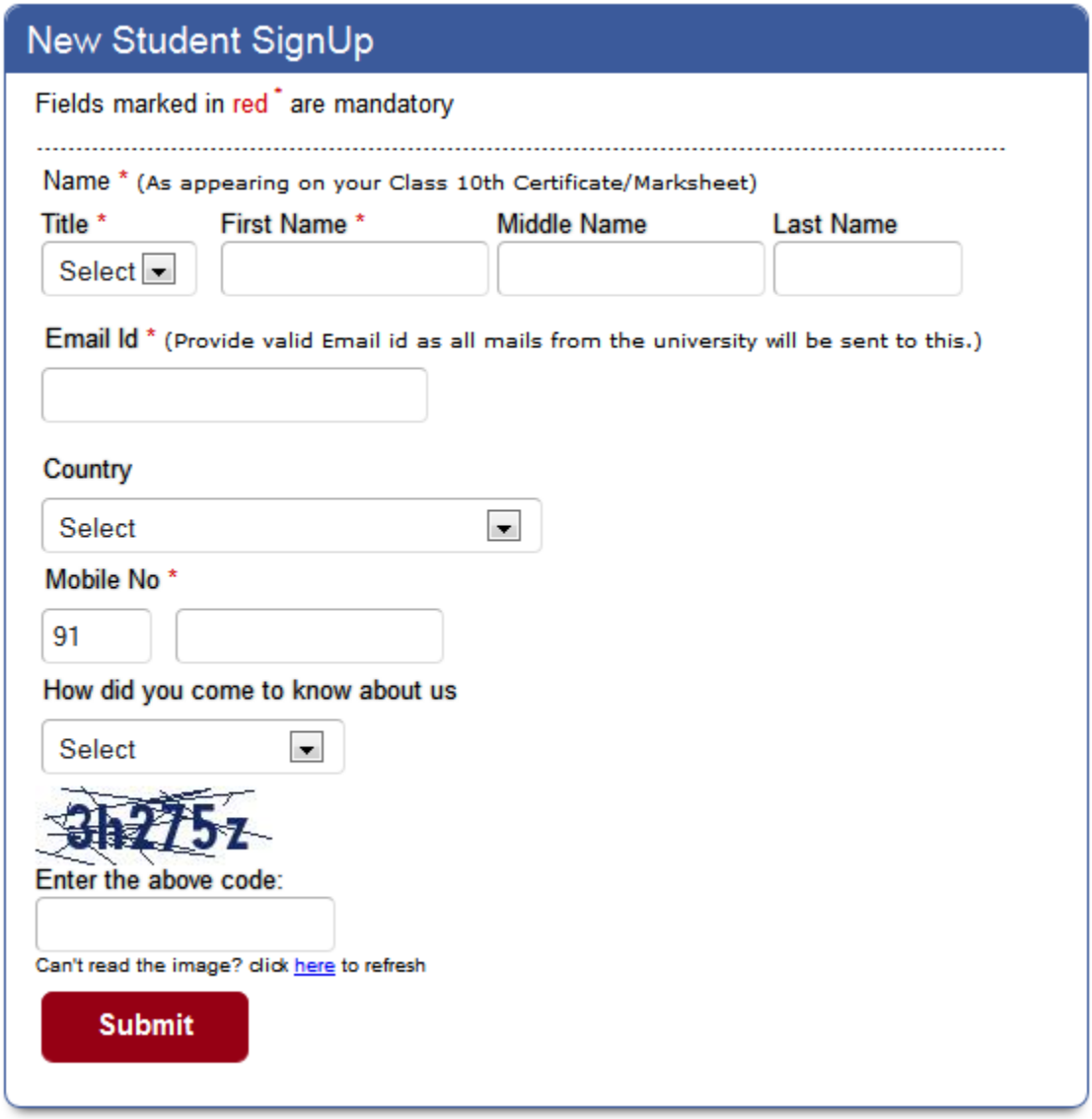
Process flow:



Input and output

- Student goes to New Sign Up
- Student fill out sign up form
- Student receive user id and password on their mail id
- Student login with received user id and password
- Student fill out course info and save the application form
- Student make payment according to course
- Student complete their application form
- University Admin verify student's document (verification 1)
- University Admin verify student's document (verification 2)
- Finance admin verify student's payment (status verified)
- Acknowledgement of fees mail would be send to student
- After both the verification(Document verification 2 & Payment Verification) student mark as enrolled
- Student receive acknowledge mail for enrolment
- Student appear for exam
- Pass student get Degree/Certificate
- Fail Student would reappear for Exam (2 times)

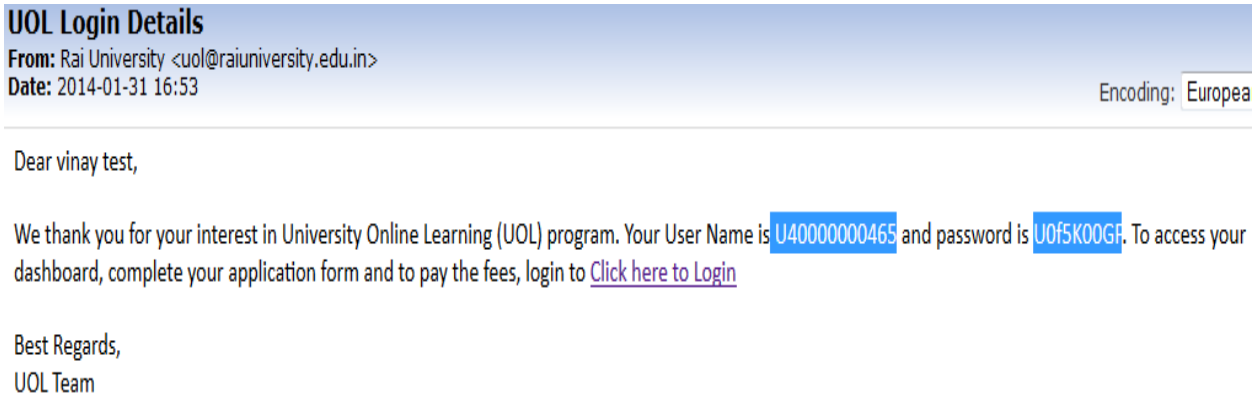
1.1 New Sign Up



UOL website displays New Student Sign Up (as shown in picture) on its Home page where student fill out his details for Registration.

Student will receive an email with User ID and Password details after submitting New Sign Up Form.

Student can click on *Cick here to Login* link for navigating on Home page of University.



UOL Login Details

From: Rai University <uol@raiuniversity.edu.in>
Date: 2014-01-31 16:53

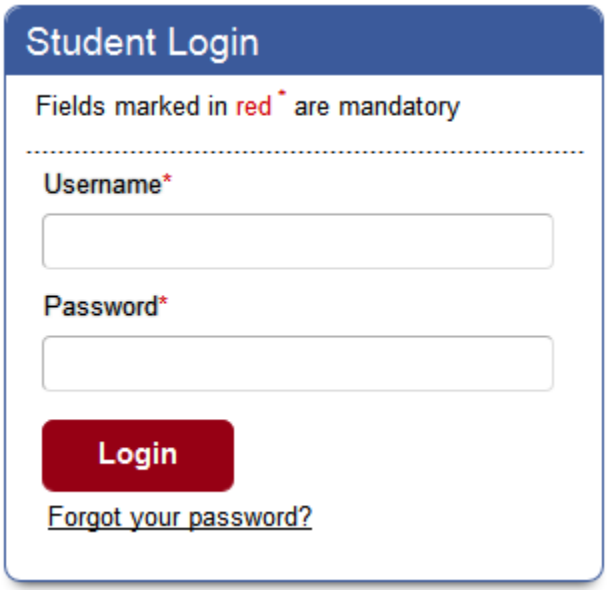
Encoding: Europea

Dear vinay test,

We thank you for your interest in University Online Learning (UOL) program. Your User Name is U40000000465 and password is U0f5K00GF. To access your dashboard, complete your application form and to pay the fees, login to Click here to Login

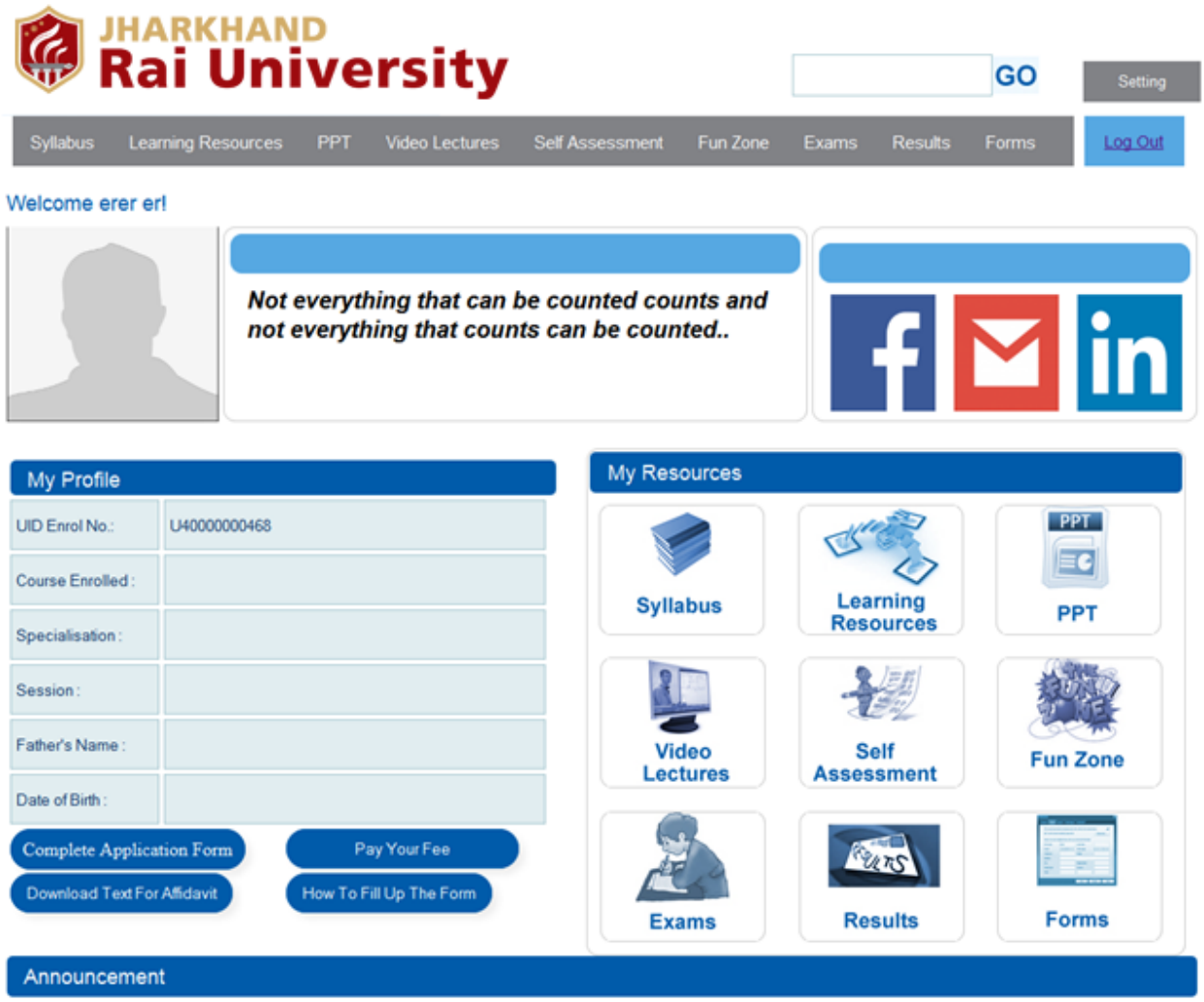
Best Regards,
UOL Team

1.2 Login



Student will enter User ID and Password in login Module for navigating his Dashboard.

1.3 Dashboard



The Dashboard module of website enable students to view all their modules such as “Complete Application Form” , “Pay Your Fee” and “My Resource” etc.

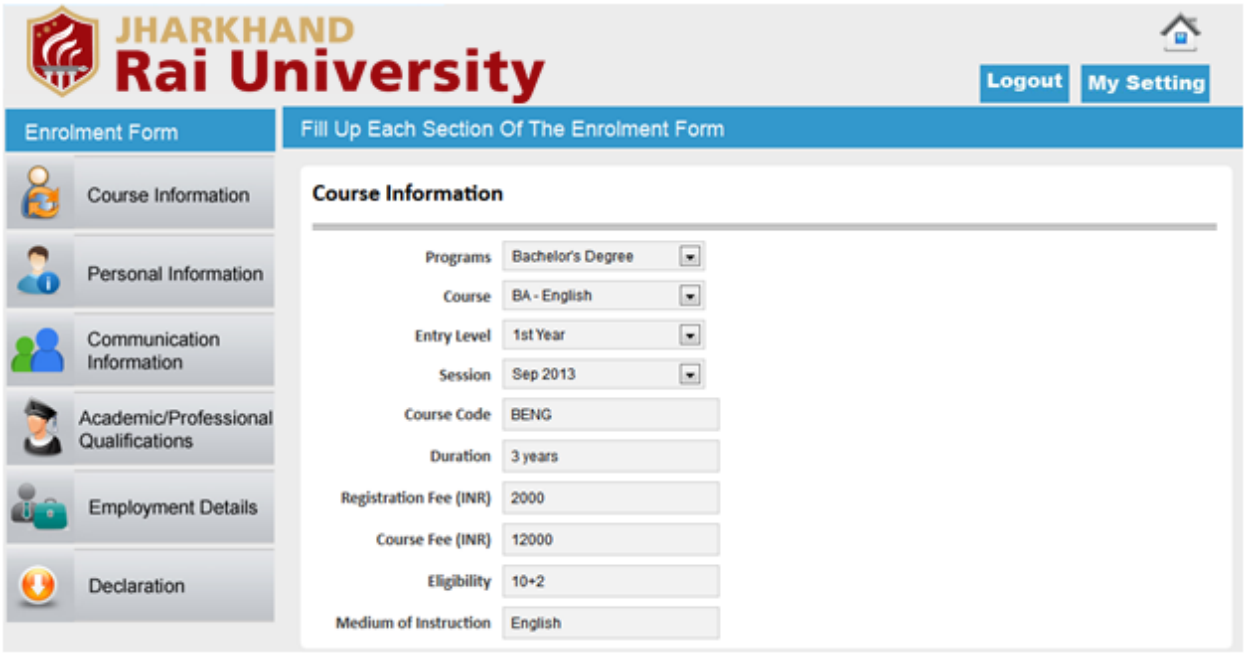
1.4 Complete Application Form

Complete Application Form module has following sub modules:

- Course Information
- Personal Information
- Communication Information
- Academic/Professional Information
- Employment Details
- Declaration

After “Complete Application Form” module is open by student, he can fill out his further details such as course Information, Personal Information etc.

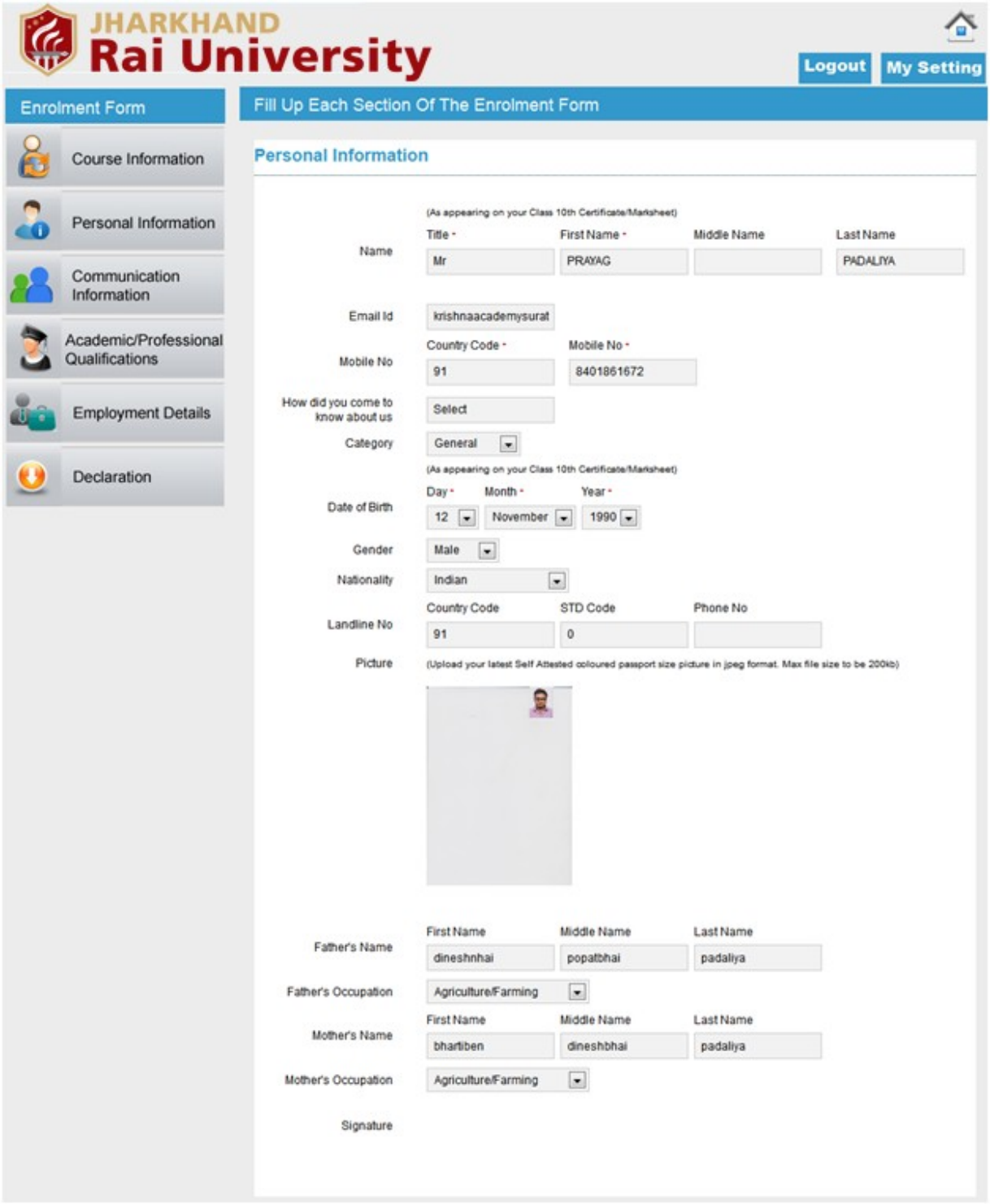
1.4.1 Course Information



Student has to choose Program, Course, Entry Level and Session details from drop down to complete course information as they are mandatory; others details would be fill out automatically.

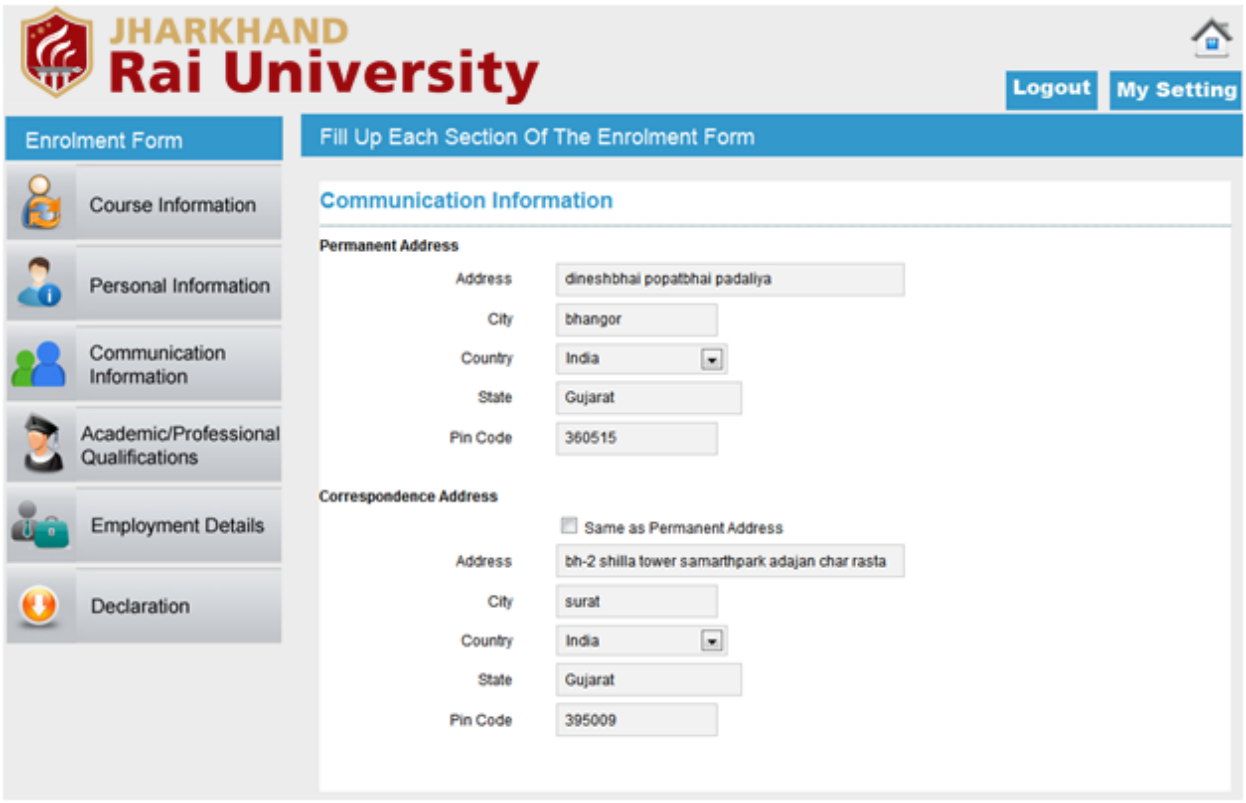
1.4.2 Personal Information

Student add personal details such as name, email id, date of birth, gender etc (as shown in blow picture)



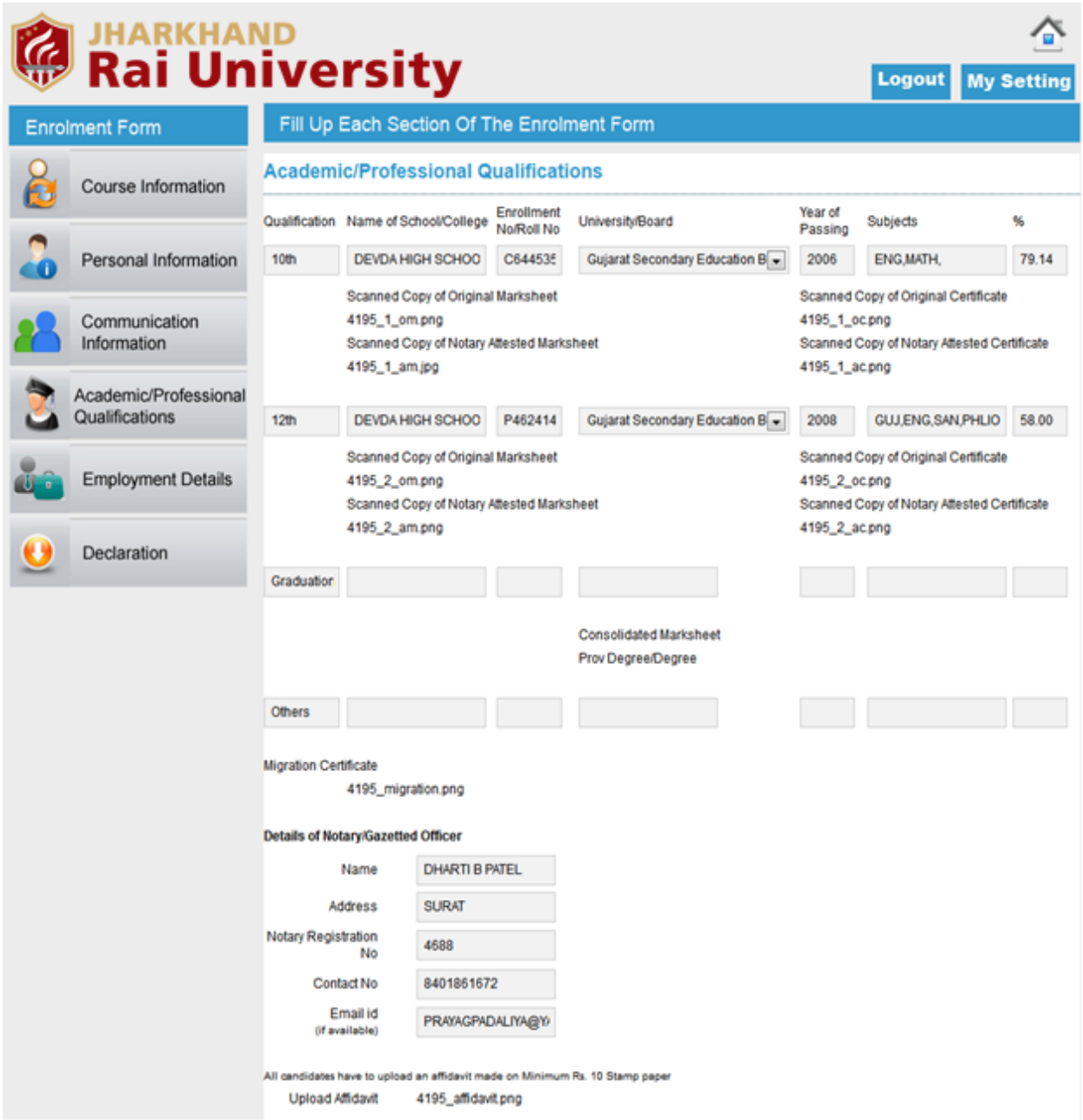
1.4.3 Communication Information

In this module student share his correspondence and permanent address detail.



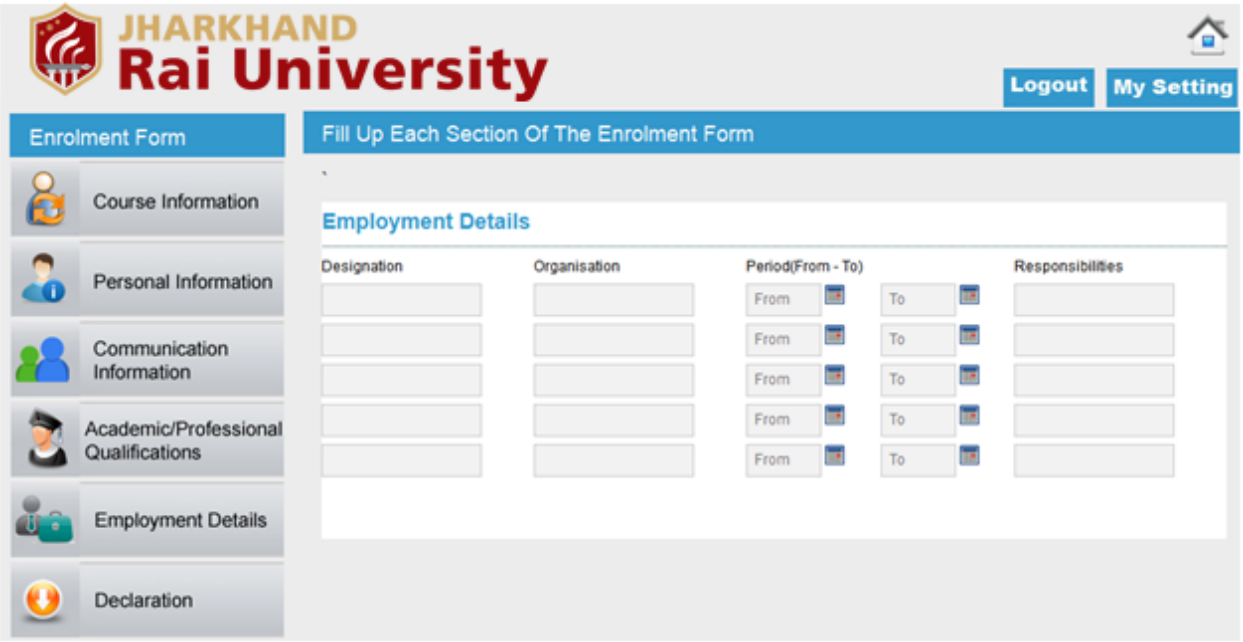
1.4.4 Academic/Professional Qualifications

Here student share his academic qualifications i.e 10th, 12th marks, years of passing and upload supporting certificates and mark sheets



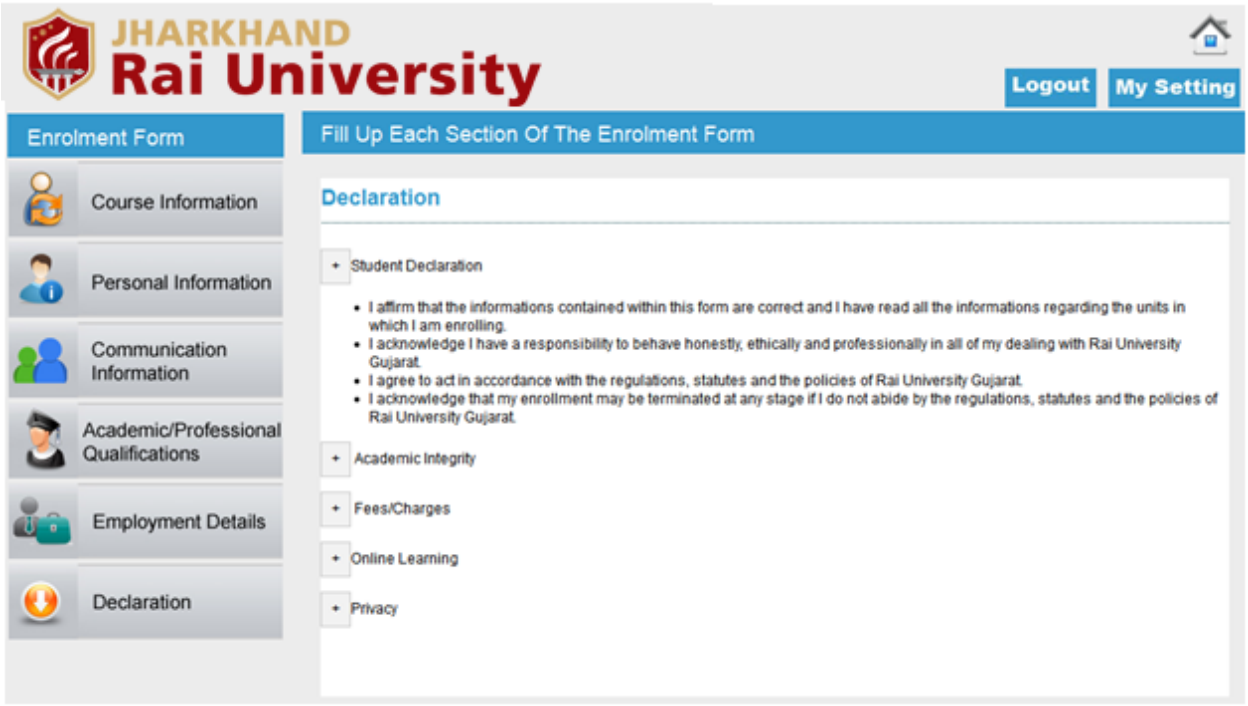
1.4.5 Employment Details

Student share his employment details however this module is optional. If he is fresher than he does not need to fill up employment details.



1.4.5 Declaration

Student has to accept declaration for completion of his enrolment form if student do not accept declaration then Enrolment Form process should not be completed.



1.5 Pay Your Fee

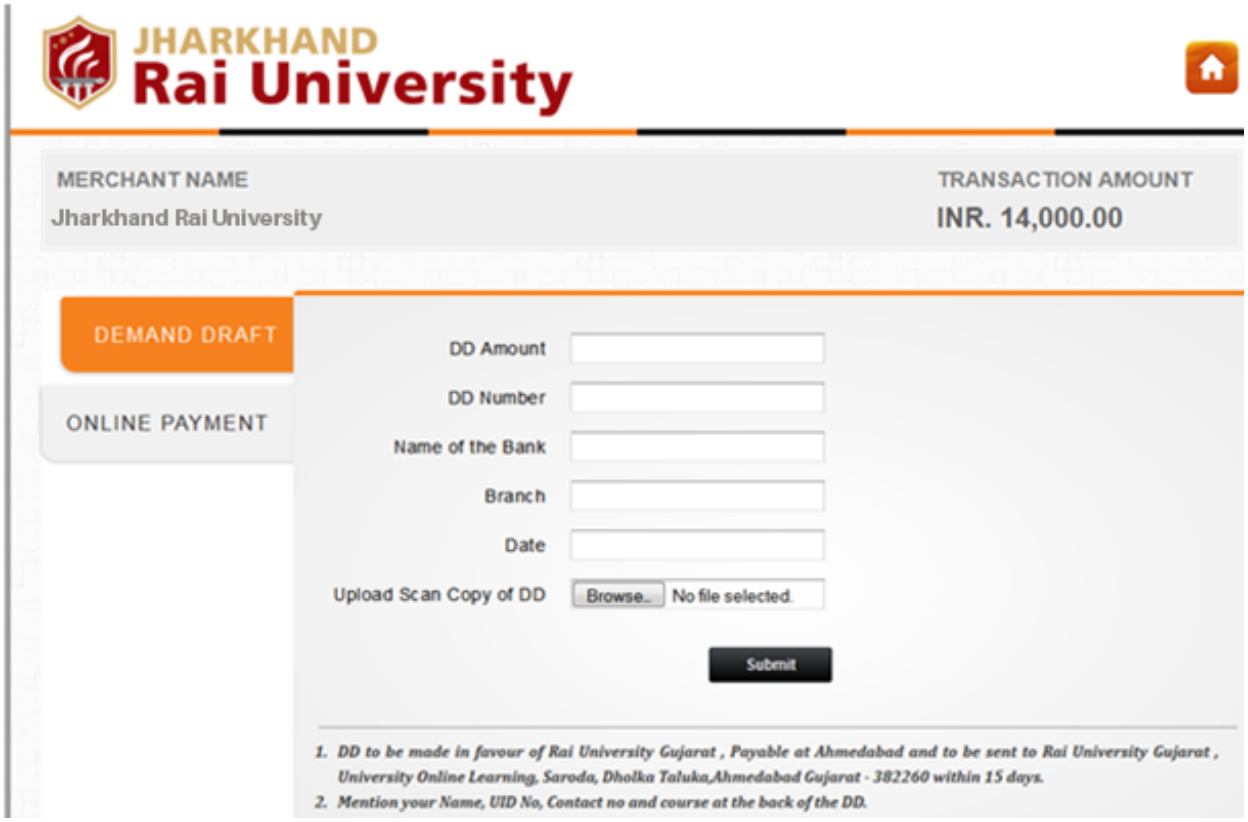
Student can proceed for payment using “Pay Your Fee” button on dashboard

Student can pay his course fee by two ways

a) Demand Draft

b) Online Payment

A) Demand Draft



Student has to fill out DD amount, DD number, Name of the Bank, Branch, Date and upload scan copy of DD details as they are mandatory. He can submit details using submit button.

B) Online Payment

Student cans also pay fee using online payment option. On clicking online payment button student would be navigate on payment gateway where he can make his payment by Credit Card, Debit Card , Net banking , cash card and mobile.


JHARKHAND
Rai University
Order Details
Order Number: RUG14211134_14195 | Transaction Amount: INR 14000.00 Click here to convert this amount in your local currency
Jharkhand Rai University
Billing Details
Name: PRAYAG PADALIYA
Address: India
For verification, enter address as it appears on your card statement
Phone Number: 8401861672
City:
State / Province: 11
Zip Code:
Country: India
Email: krishnaacademysurat@yahoo.com
My shipping address is: My billing address A different address
Instructions:
Max. 250 characters
Shipping Details
Name: PRAYAG PADALIYA
Address: dineshbhai popatbhai padaliya
Phone Number: 8401861672
City:
State / Province: 11
Zip Code:
Country: India
Payment Details
Select Payment Mode: --Select--
For VISA Debit Card Issued in India (VBV)/ MasterCard Debit Card Issued in India (MSC)/MasterCard/Any Maestro Debit Card, the charges will be billed to your credit card as RAI University.
After submitting the page, please wait for the intimation from the server, DO NOT press back or Refresh button in order to avoid double charge.
For Credit Card users: All prices are listed in Indian Rupee. If you use a non-Indian credit card, your bank will convert to your local currency based on prevailing exchange rates.
Encountered problems while paying? Click here to open a support ticket.
Security Advisory: To ensure the security of your data, please close the browser window once your transaction is completed.
Submit
more people around the world go with Visa.
VISA

Note:

Student can make payment before completing Enrolment Form, he just needs to fill out course information. Then he can proceed for payment.

Student would receive email alert on completion of every process.

Exceptional Case:

If student has made a payment but he has not completed his application form still then he can appear for exam.

1.6 My Resource

Student can access My Resource module only after completion of Payment.

My Resource module has following sub modules:

- Syllabus
- Learning Resource
- PPT
- Video Lecture
- Self Assessment
- Fun Zone
- Exams
- Results
- Forms

University is in process of developing the instructional design for the courses to be offered through online platform.

1.7 How To Fill Up Form

In this module student will get instructions regarding fill up form.

1.8 My Settings

Student can change password and upload profile picture in this module.

2. Exam:

2.1 Exam List

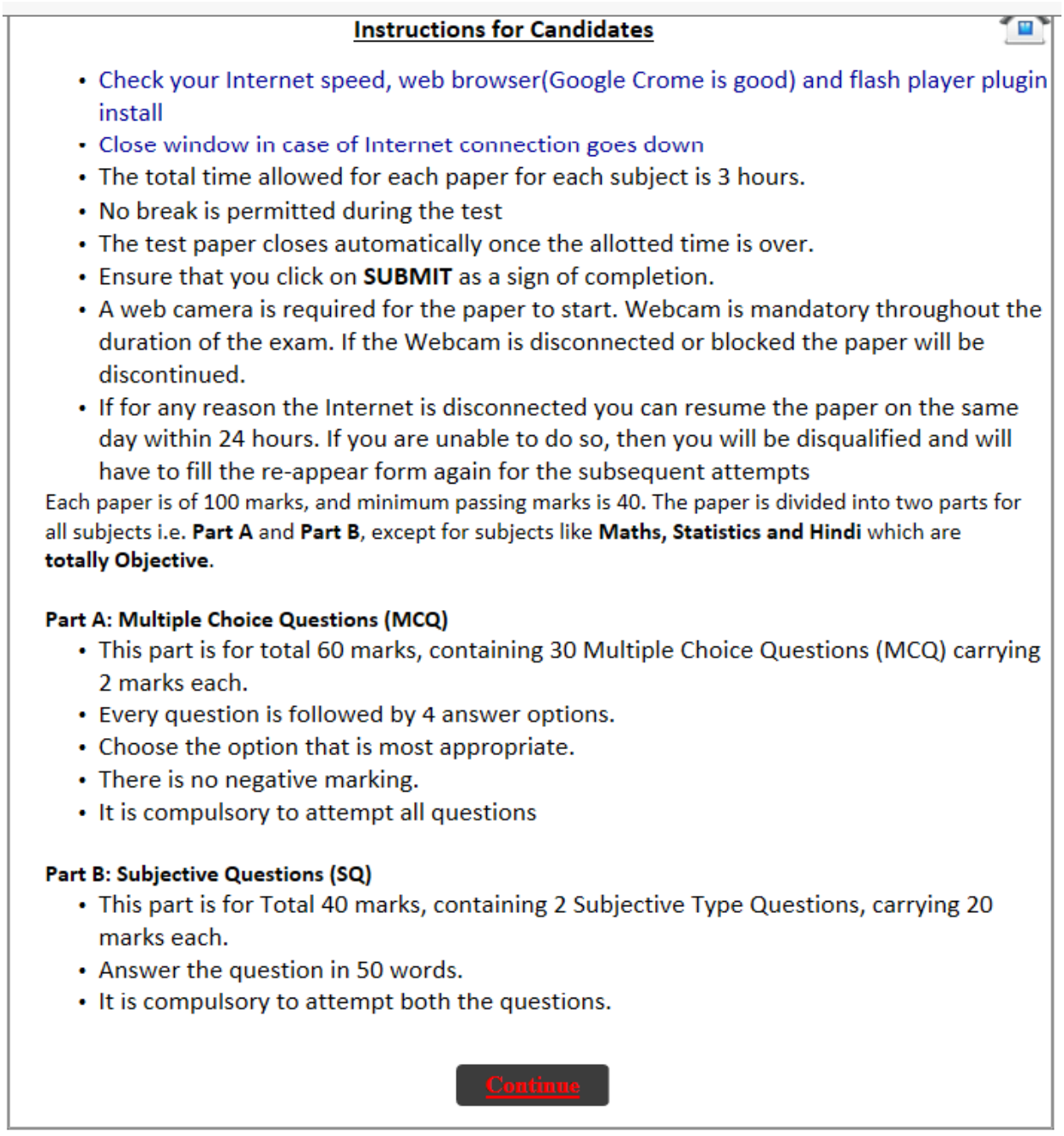
Enrolled Student can appear for exam, when he will go in exam section his subject list will be shown.



"Instruction for Candidates" window would be visible to student on selecting for a particular subject.

Student has to click on continue button for further process.

2.2 Exam Instruction



Instructions for Candidates

- Check your Internet speed, web browser(Google Crome is good) and flash player plugin install
- Close window in case of Internet connection goes down
- The total time allowed for each paper for each subject is 3 hours.
- No break is permitted during the test
- The test paper closes automatically once the allotted time is over.
- Ensure that you click on **SUBMIT** as a sign of completion.
- A web camera is required for the paper to start. Webcam is mandatory throughout the duration of the exam. If the Webcam is disconnected or blocked the paper will be discontinued.
- If for any reason the Internet is disconnected you can resume the paper on the same day within 24 hours. If you are unable to do so, then you will be disqualified and will have to fill the re-appear form again for the subsequent attempts

Each paper is of 100 marks, and minimum passing marks is 40. The paper is divided into two parts for all subjects i.e. **Part A** and **Part B**, except for subjects like **Maths, Statistics and Hindi** which are **totally Objective**.

Part A: Multiple Choice Questions (MCQ)

- This part is for total 60 marks, containing 30 Multiple Choice Questions (MCQ) carrying 2 marks each.
- Every question is followed by 4 answer options.
- Choose the option that is most appropriate.
- There is no negative marking.
- It is compulsory to attempt all questions

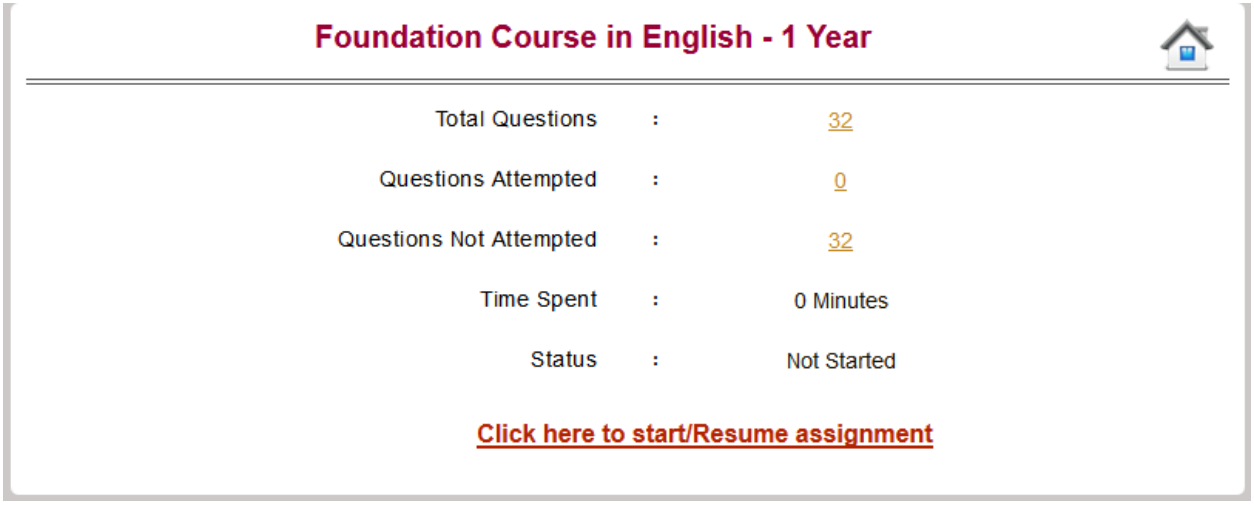
Part B: Subjective Questions (SQ)

- This part is for Total 40 marks, containing 2 Subjective Type Questions, carrying 20 marks each.
- Answer the question in 50 words.
- It is compulsory to attempt both the questions.

Continue

2.3 Question Details

It shows total questions in a course.



For appearing exam student has to ON his Web Camera. Student has to click on allow button to ON camera.

2.4 On Web Camera

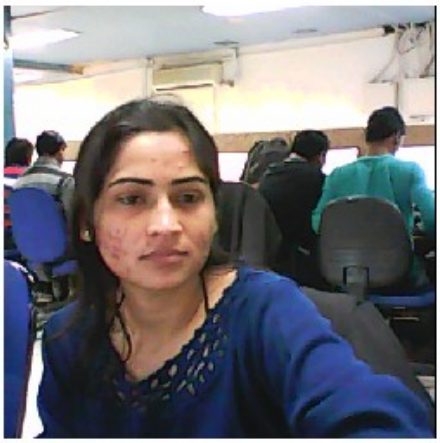


On clicking “Verify Yourself” button, student picture would be taken which would appear on mark sheet of student.

2.5 Verify Yourself

Foundation Course in English - 1 Year

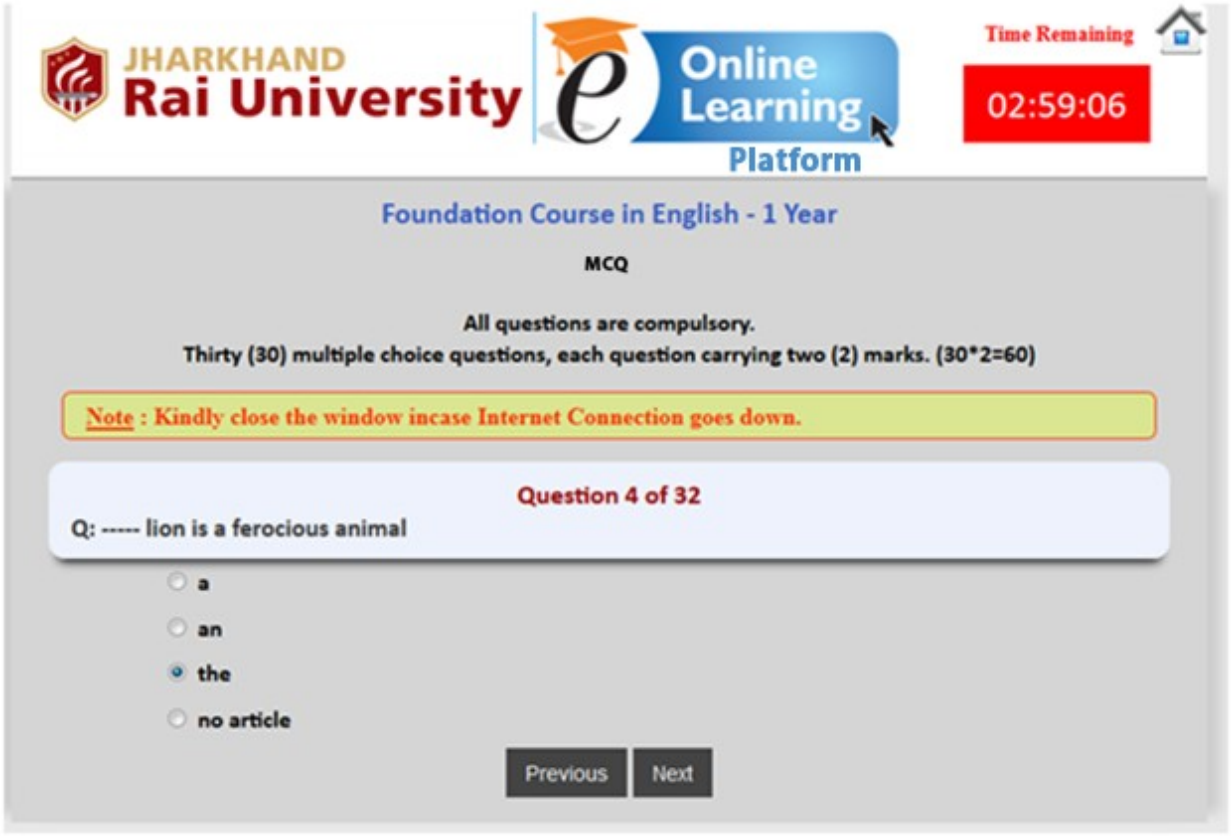
Please verify yourself before continuing with the exam.
This picture will appear on your marksheet. Your picture will be randomly clicked during the exam.
Kindly keep the camera on throughout the exam. Otherwise exam will be stopped.



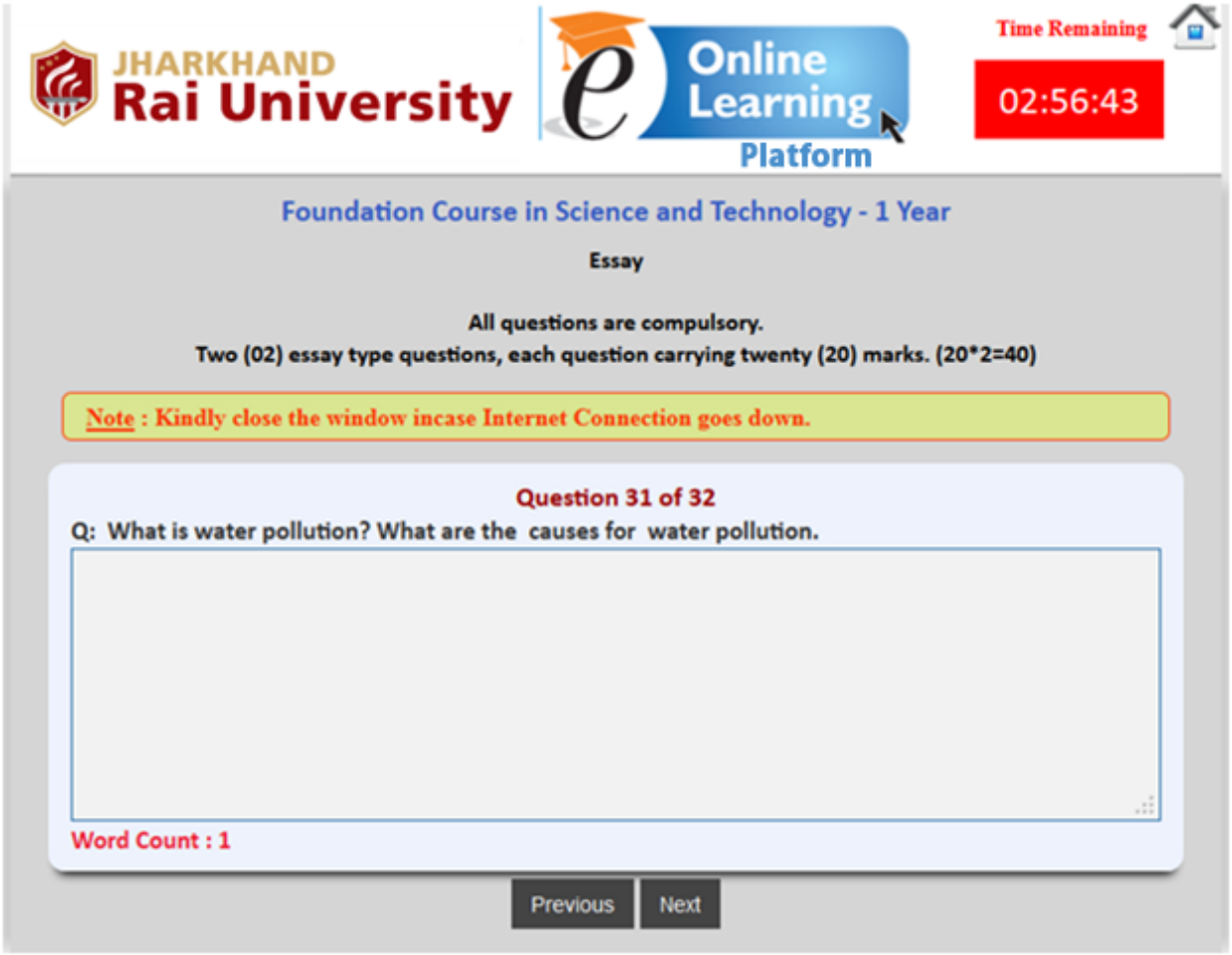
Verify Yourself | Go Back

2.6 Questions Pattern

Example of MCQ:

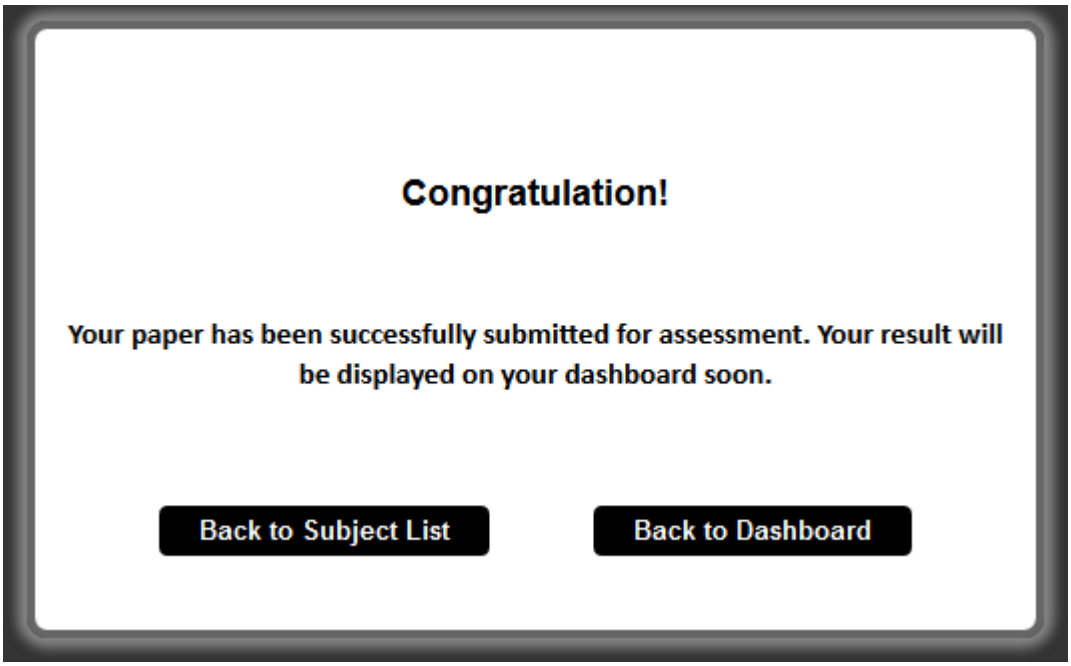


Example of Subjective Question:



2.7 Congratulation Message

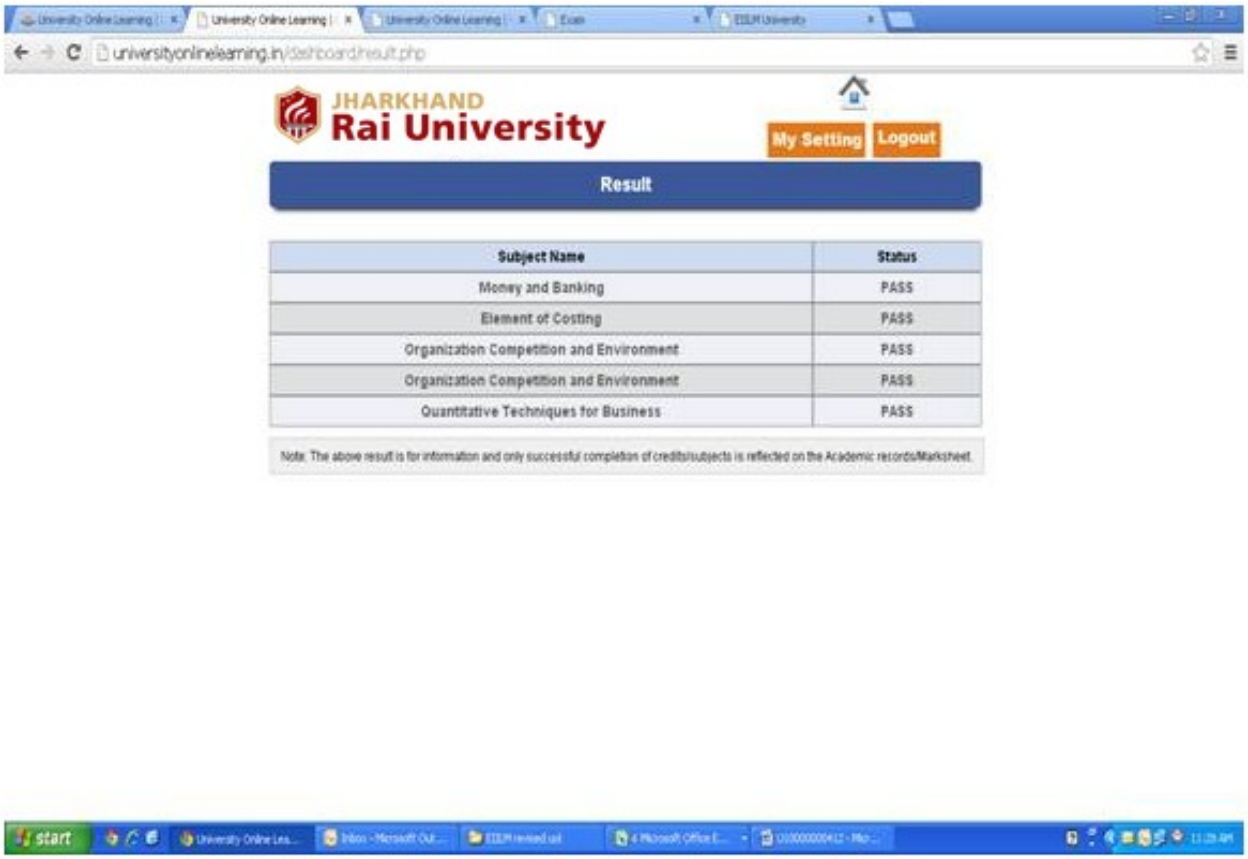
On completion of exam Congratulation message would be shown.



3.1 Result:

Result would be declared after exam process is complete successfully.

Student can see his result in result section.



4. Admin:

Admin has following Responsibility:

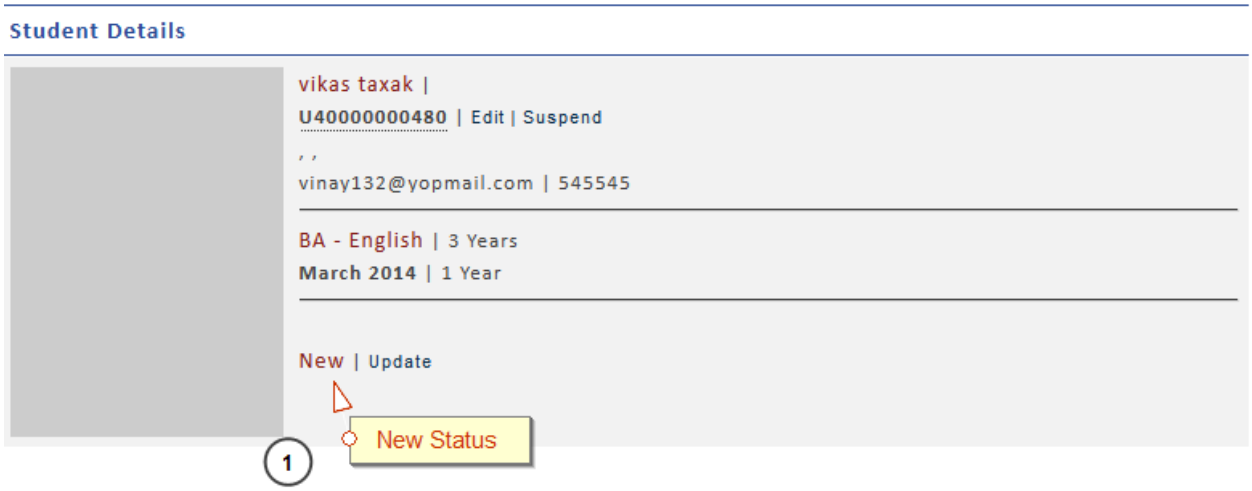
- Add a course
- Add subject
- Edit student details
- Suspend student details
- Delete student details
- Verify Document
- Update status of student

When a student signs up on university website his status shows as “New” to the admin.

And student would receive a mail with login username and password.

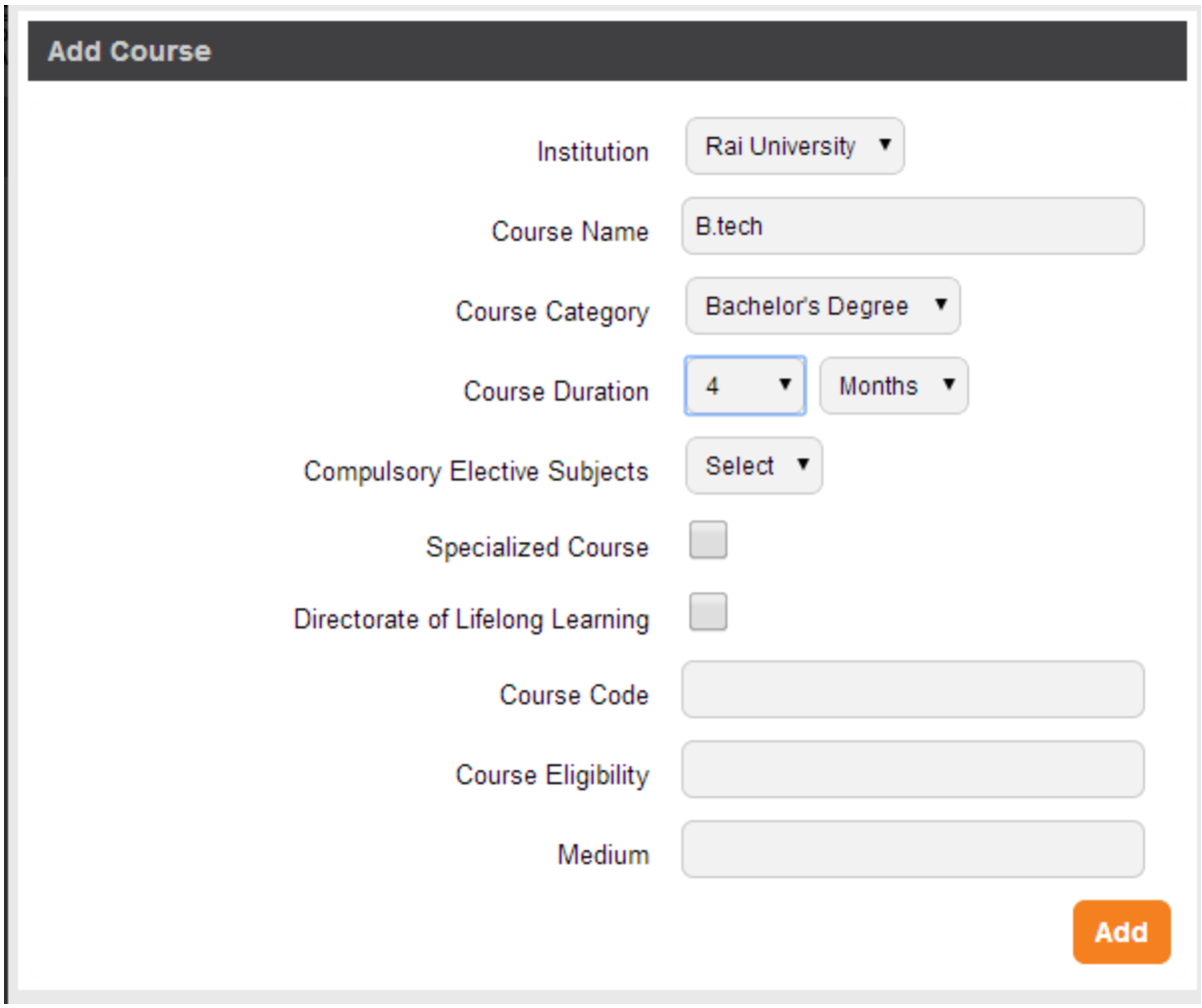
By default student status would be “Active”

Admin can suspend student using “Suspend” link



4.1(a) Add Course:

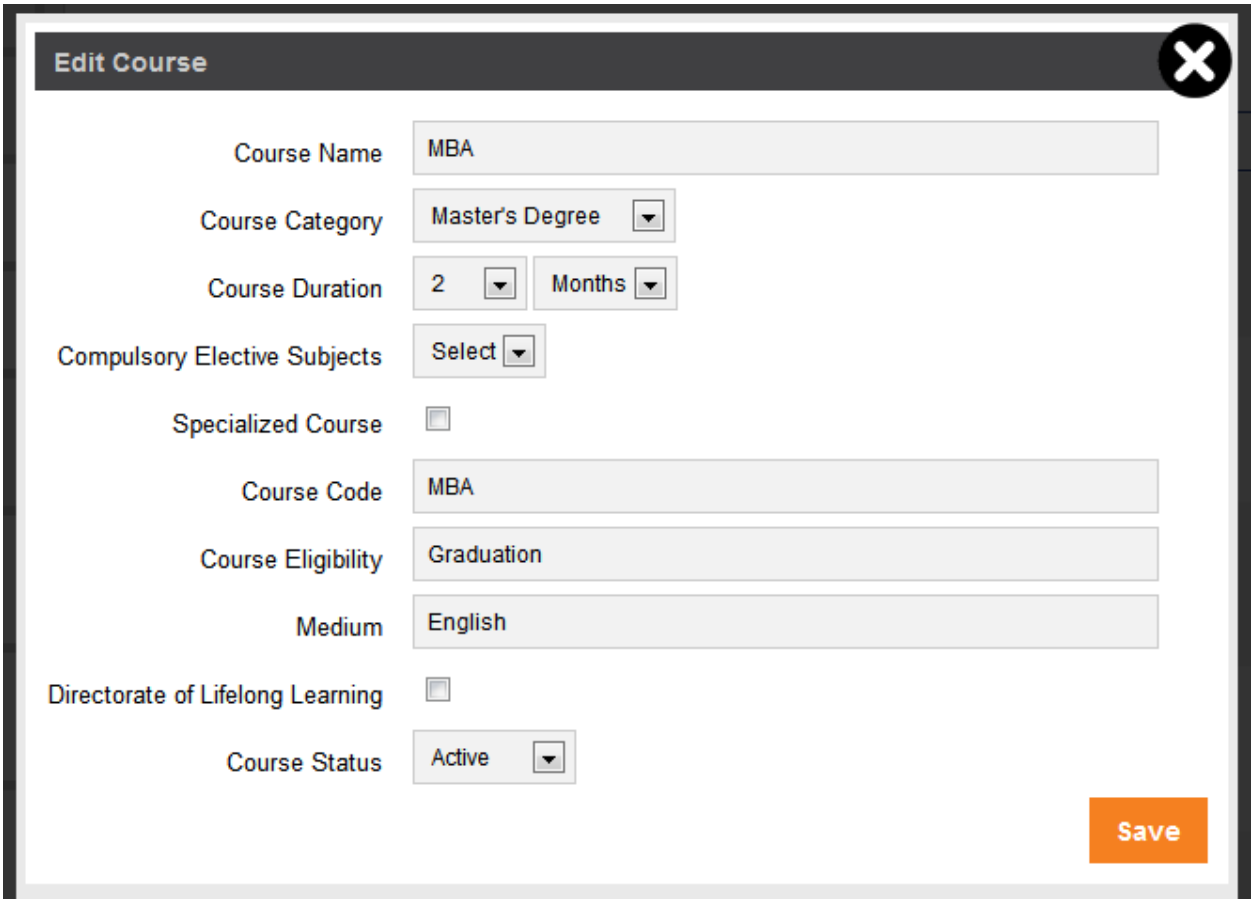
Admin can add a course which would be rendering on university website.



4.1(b) Add Course:

Here admin would edit a course which is already added and here change course status as Active or Suspend.

If course is Active then it would render on site.



4.2 Student Detail List:



Suspended student cannot access it account.



On clicking edit link a student details would be shown to admin where he can make changes.

4.2(a) Edit Student details

Admin can edit details of students:

Student Details

Course Information

Course

PG Diploma in Business Management

Session

Select

Personal Information

Category	General
Name	Title: Mr; First Name & Middle Name (If Any): abhay1; Last Name: dubey
Date of birth	02 January 1997
Gender	Male
Nationality	Indian
Telephone No. (with STD Code)	
Mobile No.	7878787870
Email Address	abhaydubey1@yopmail.com
Father's Name	xyx
Father's Occupation	1
Mother's Name	xcc
Mother's Occupation	1
Picture	

Browse... No file selected.

Permanent Address

Address	wbv
City	vb
State	Select
Country	India
Pincode	110001

Correspondence Address

Address	wbv
City	vb
State	Select
Country	India
Pincode	110001

Academic / Professional Qualifications

Qualification	University/Board	Year of Passing	Subjects	%
10th	0	2002	pcm	87
Scanned Copy	Browse... No file selected. Download			
12th	0	2004	dfdf	87
Scanned Copy	Browse... No file selected. Download			
Graduation				
Scanned Copy	Browse... No file selected.			
Other Qualification				
Scanned Copy	Browse... No file selected.			

Employment

Give a brief history of your employment (Including recent, temporary or vacation employment)

Post	Organization	Period	Responsibilities
Scanned Copy	Browse... No file selected.		
Scanned Copy	Browse... No file selected.		
Scanned Copy	Browse... No file selected.		
Scanned Copy	Browse... No file selected.		
Scanned Copy	Browse... No file selected.		

Payment Details

Bank Name

Branch

DD Number

Date Day Month Year

Amount

Affidavit Details

Affidavit Scanned Copy Browse... No file selected.

Download

Notary Name

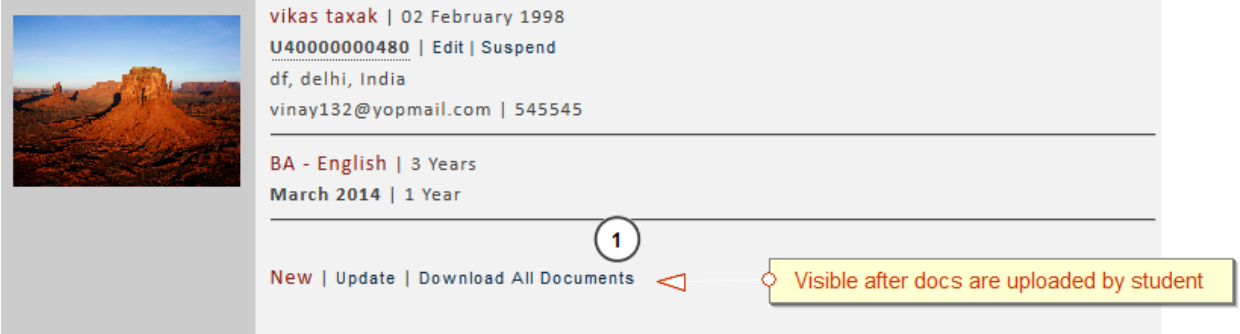
Notary Address

Notary Registration No.

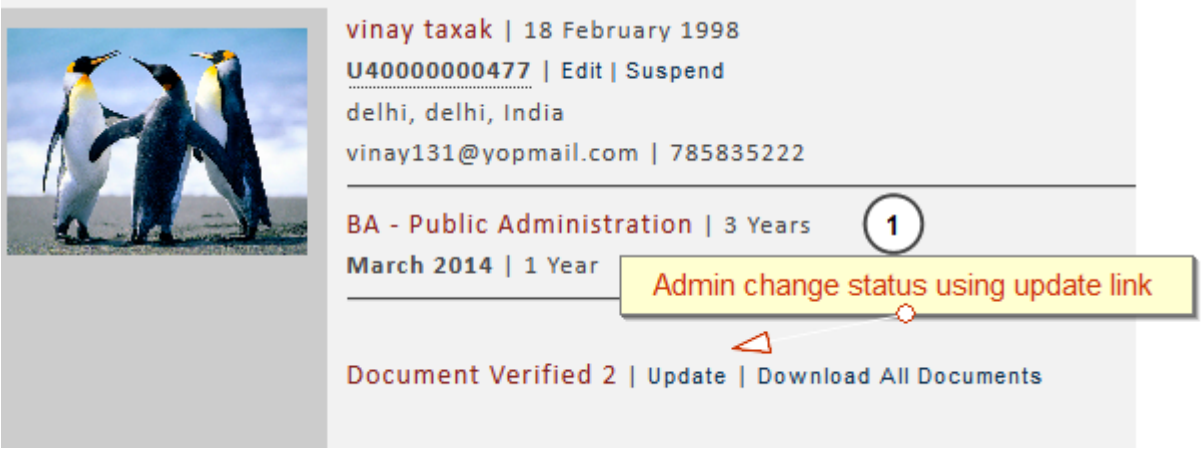
Notary Email Address

Save

“Download All Documents” link would be visible to admin after uploading certificate, mark sheet etc by student



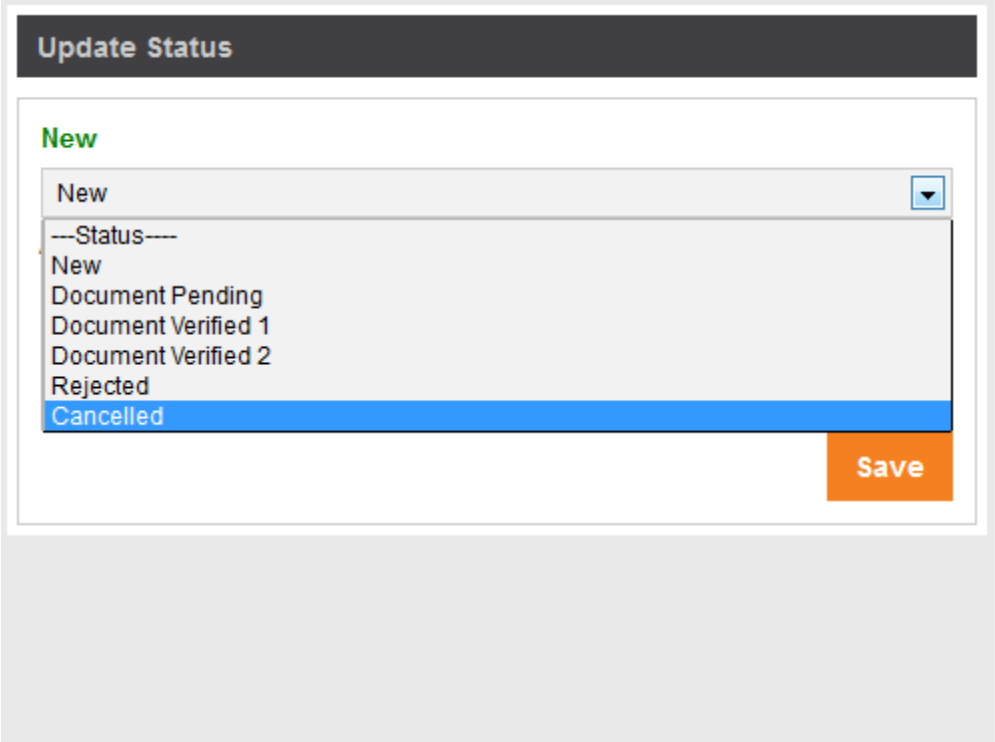
Admin would download documents for verification of certificates , mark sheets etc.



4.2(b) Update Status

After completion of “Enrolment form” Admin can update status of a student as

- Document Pending
- Document Verified 1
- Document Verified 2
- Rejected
- Cancelled



- Document Pending status would be mark by admin when student has not given his complete details or given false details.
- Document Verified 1 status would be mark when admin has verified initial details of student
- Document Verified 2 status would be mark when admin has completed student verification.

- Admin can reject student's application by marking status as rejected.
- Admin can Cancelled student's application by marking status as Cancelled.

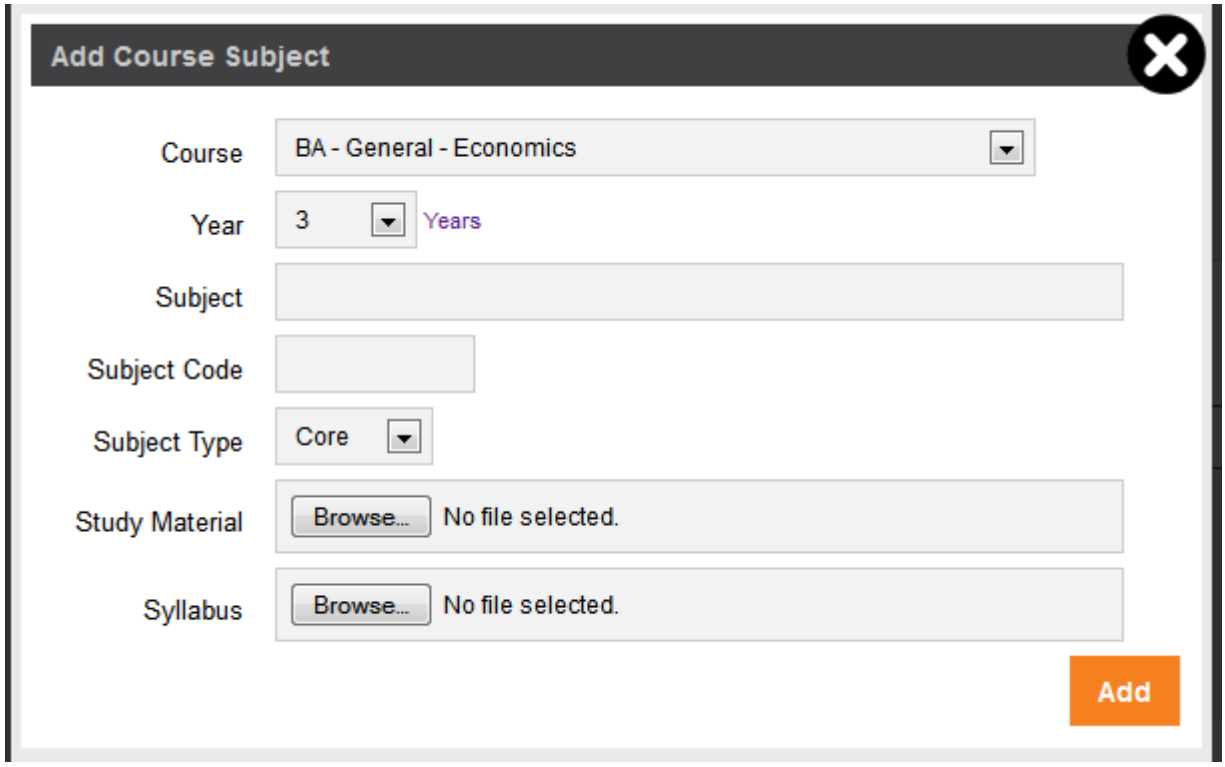
Note:

Admin can directly mark Document Verified 2 status after verification of documents without marking status as Document verified1.

Student would receive email alert on completion of process.

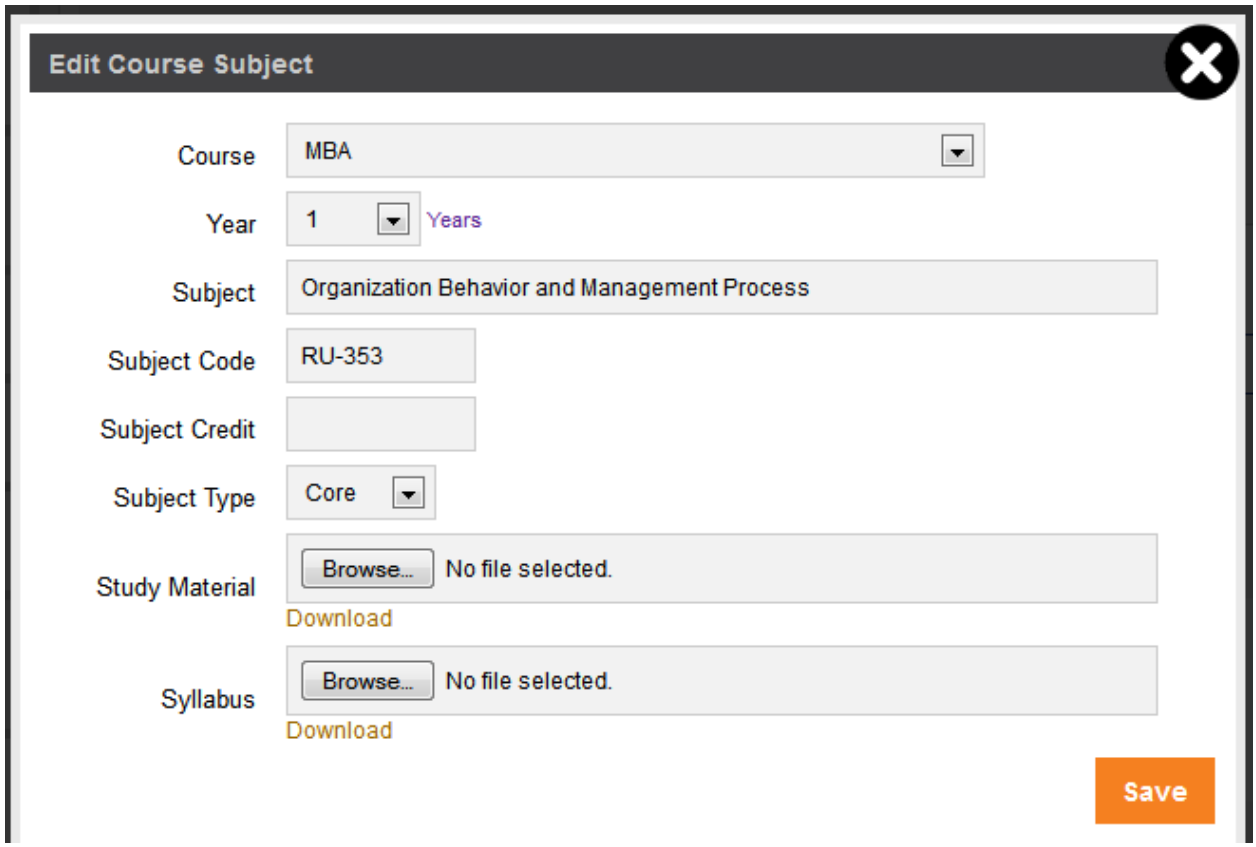
4.3(a) Course Subject:

Admin would add subjects to a particular course.



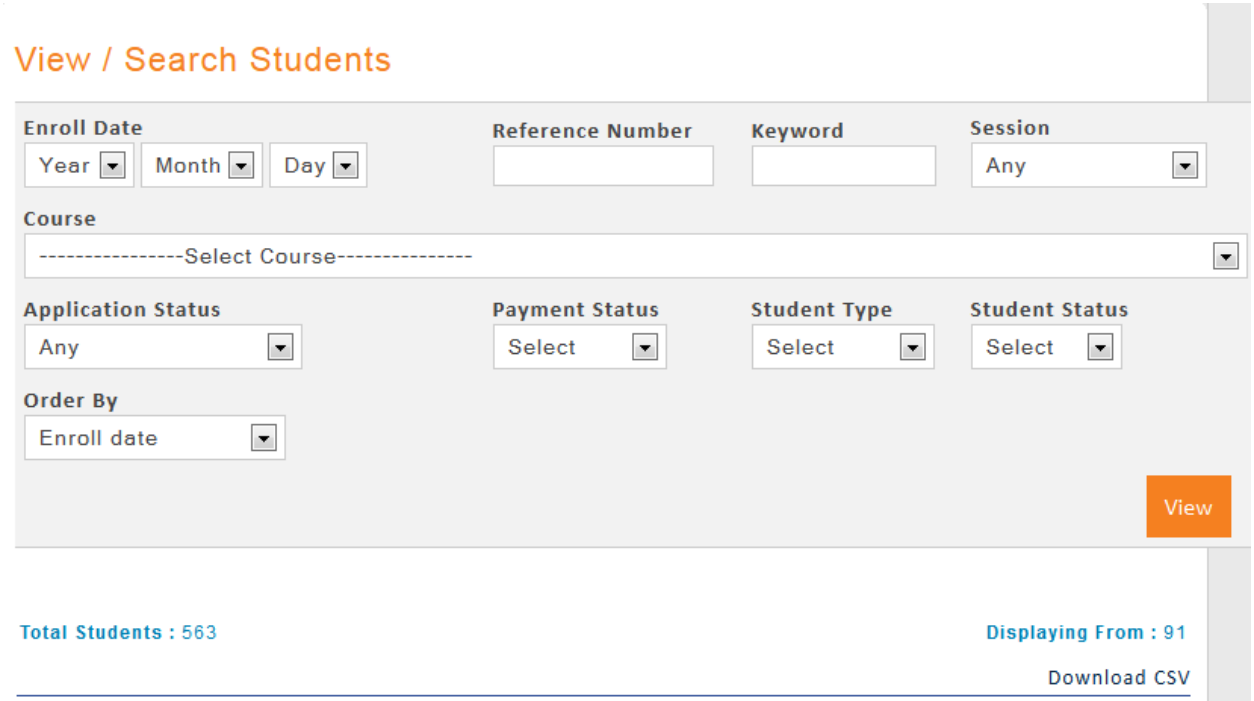
4.3(b) Edit Course Subject:

Here admin would edit a subject which is already added.



4.4 Search Students

Admin can find out details of a particular student by different search criteria such as Enrol date, keyword, course etc (as shown in below picture)



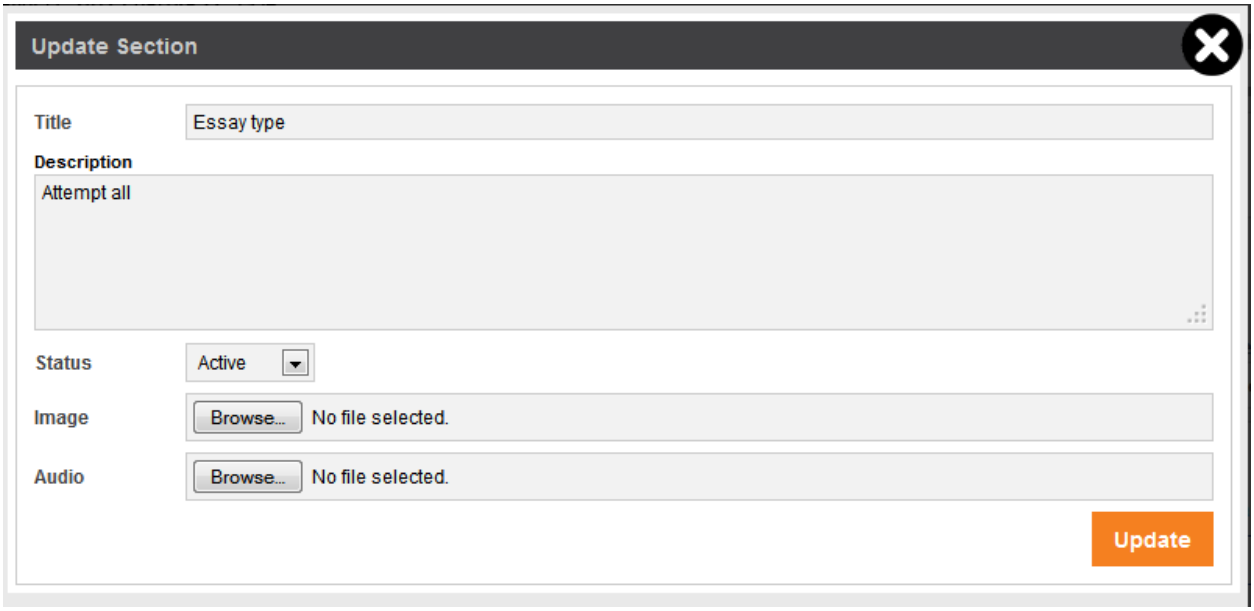
By clicking on *download CSV* link admin can download list of student which is appear after search.

4.5 Section:

Section means type of questions eg. MCQ , subjective, Essay type etc.

Admin can update a section title and status of sections

Status would be Active or suspend

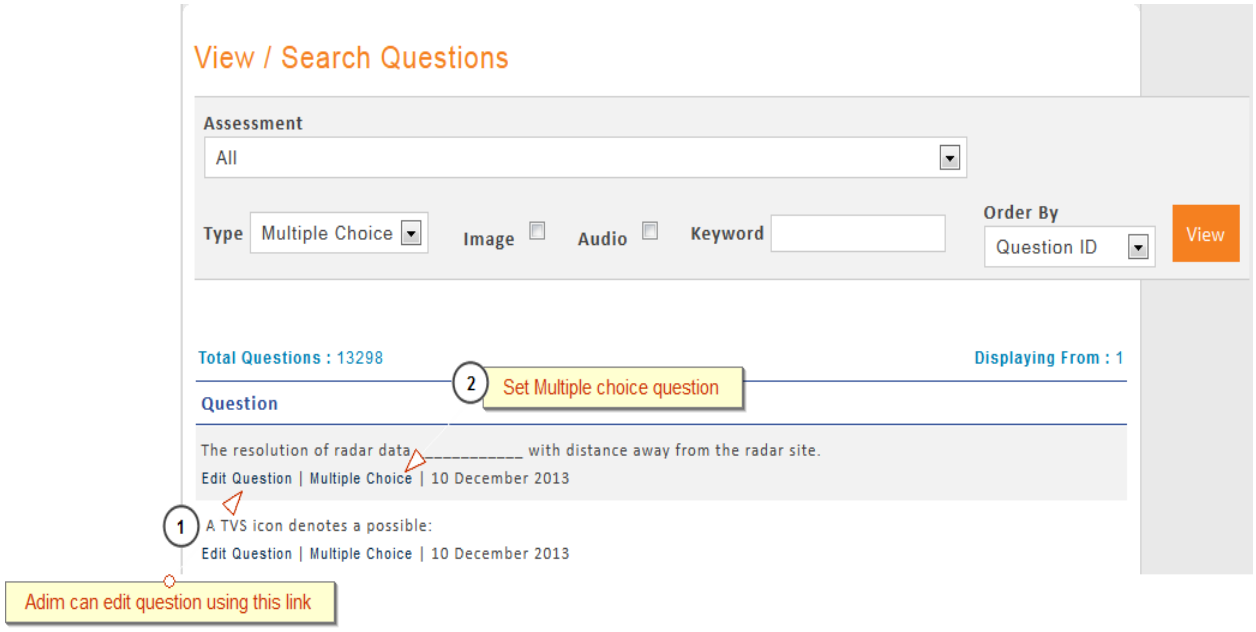


Note:

Suspend section would not be visible on university site.

4.6 Questions:

Admin can search a course by different search criteria such as assessment, question type, keyword, image and audio



Question type can be multiple choices, True False, Essay, Speaking and Fill in the blank

On clicking “Multiple Choice” link a “Question Options” window would be visible where admin can set answers for MCQ .

4.6(a) Update Question:

On update question window admin can update questions.

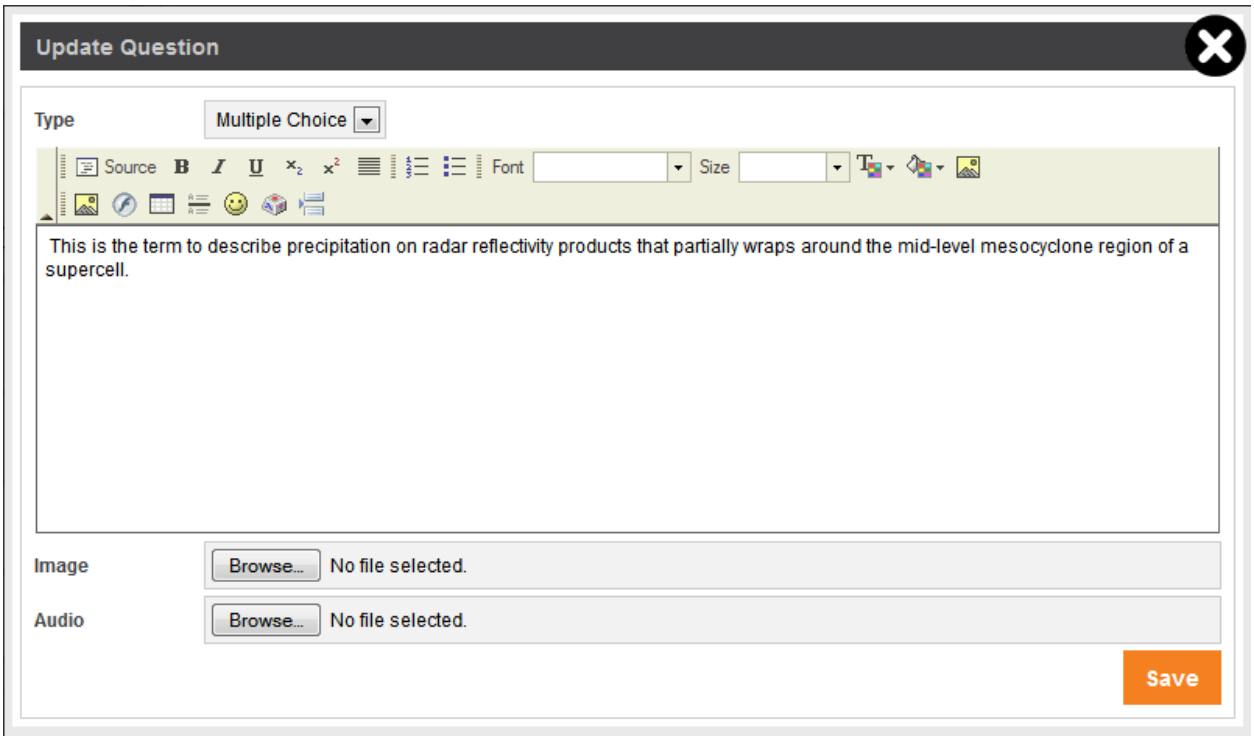
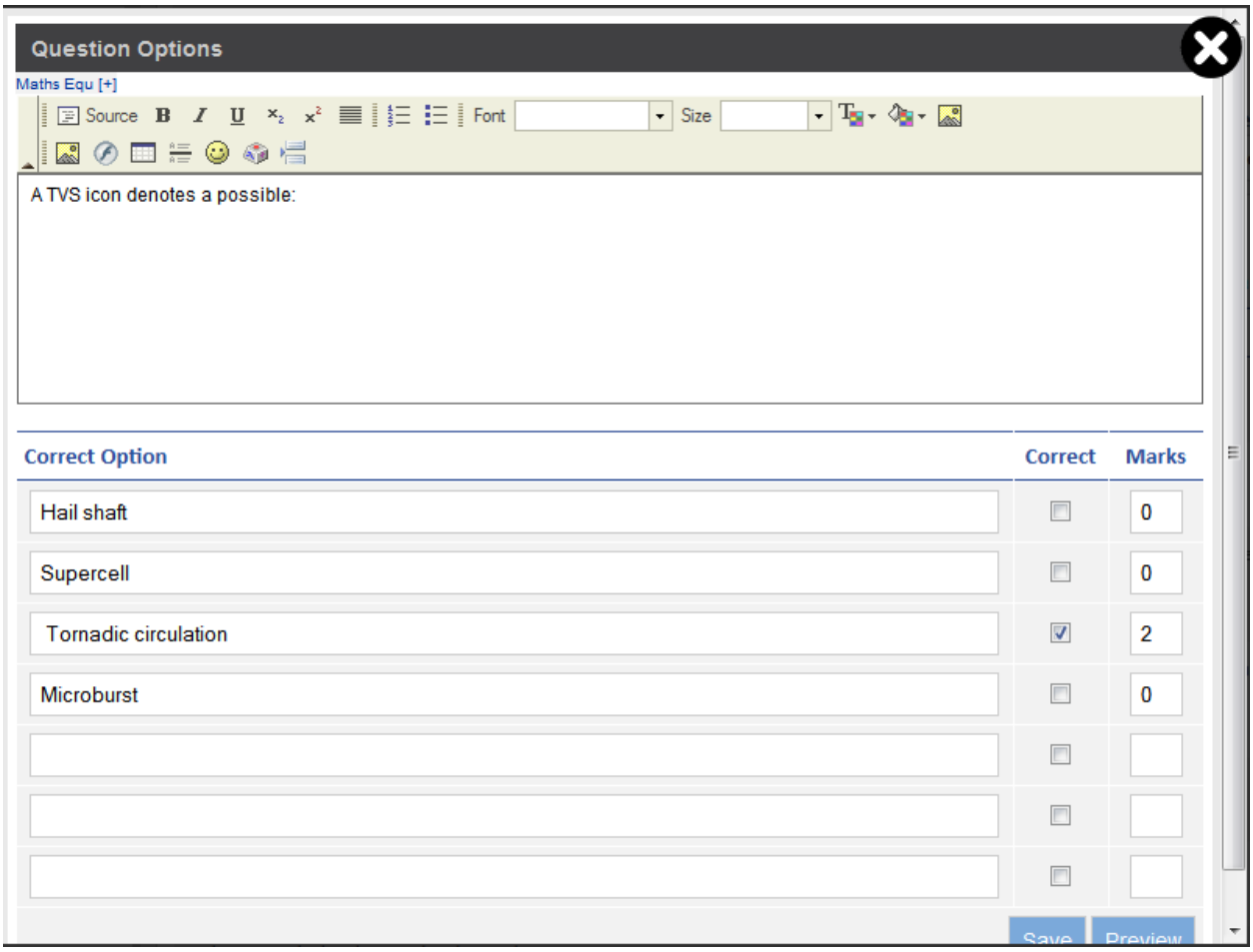


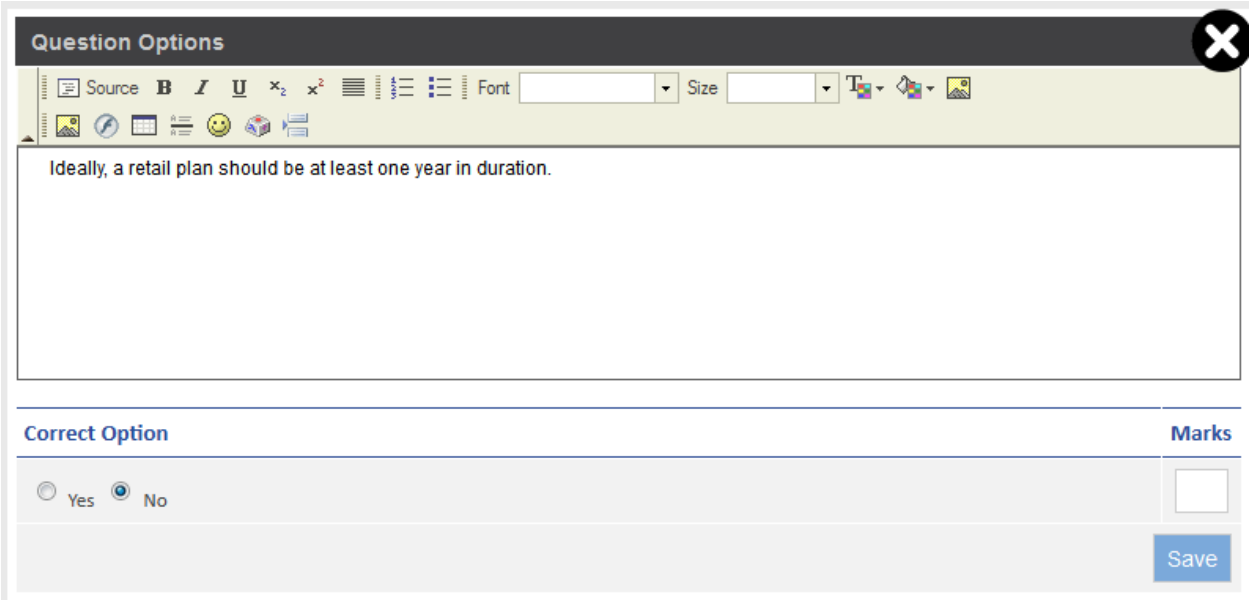
Image and Audio file can also be attached to a course.

4.6(b) Question Options:

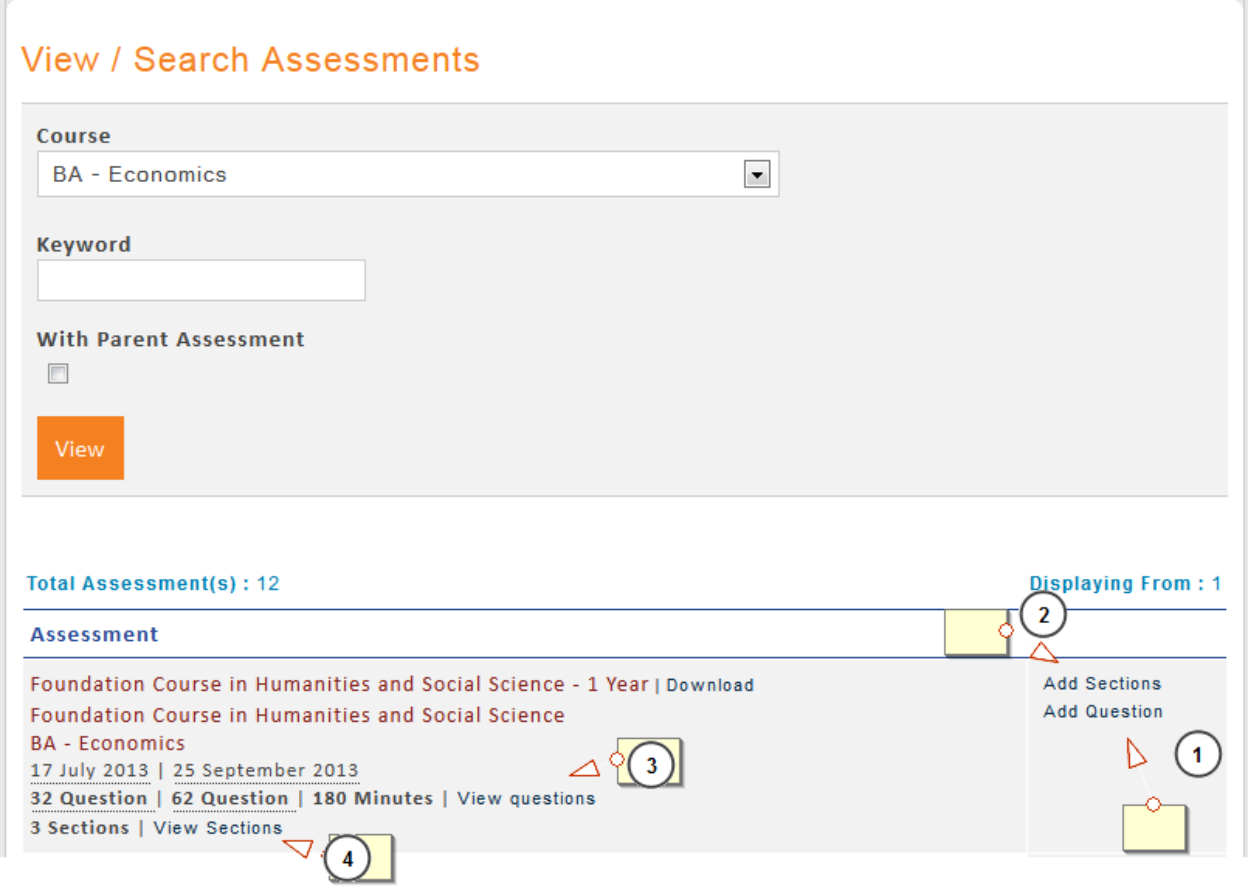
Admin would set answer for MCQ questions and he can preview of question using preview button.



Admin can set correct answer for True/False question by checking button Yes or No



4.7 Assessment:



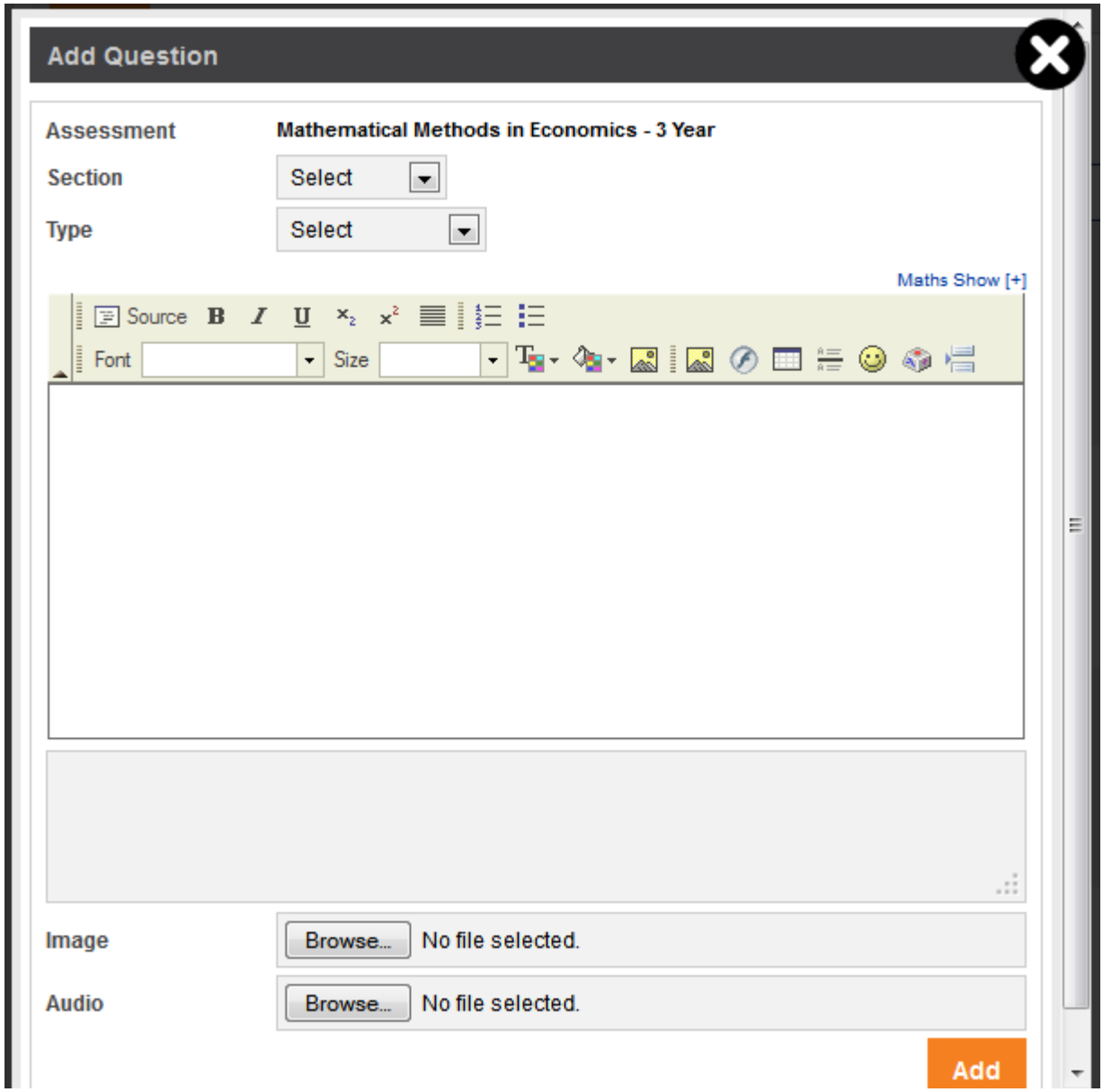
Admin can search a particular assessment by different search criteria such as course and admin etc.

Note:

Admin can check “with parent assessment” checkbox if same assessment is use in different courses.

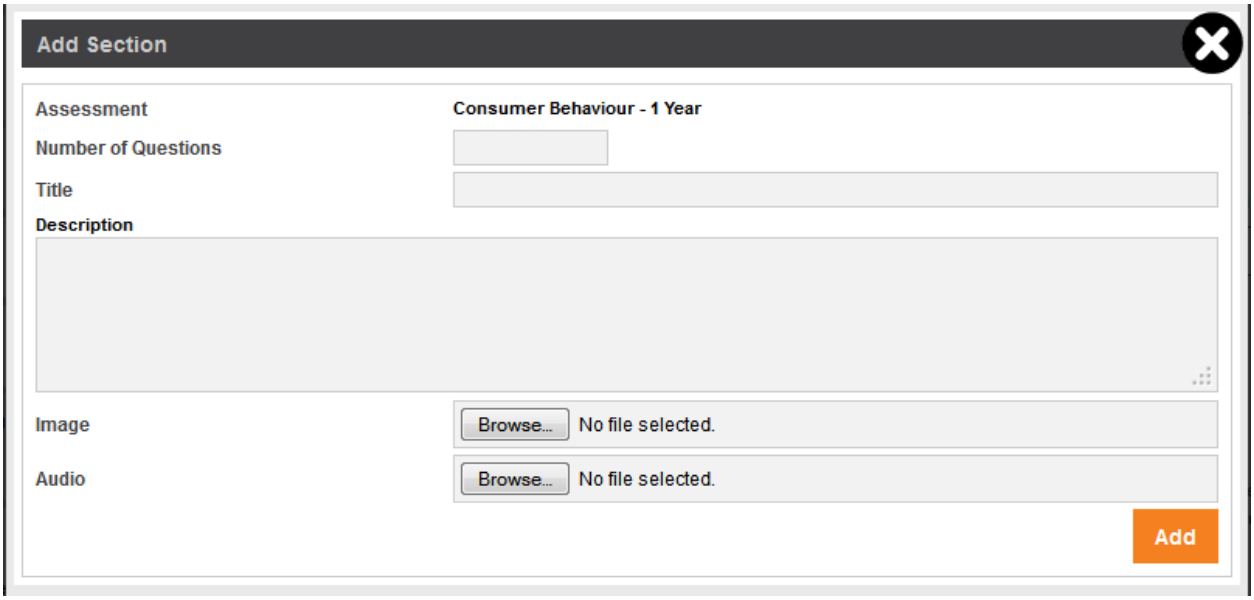
4.7(a) Add Question:

Here admin can add question for particular selected subject.



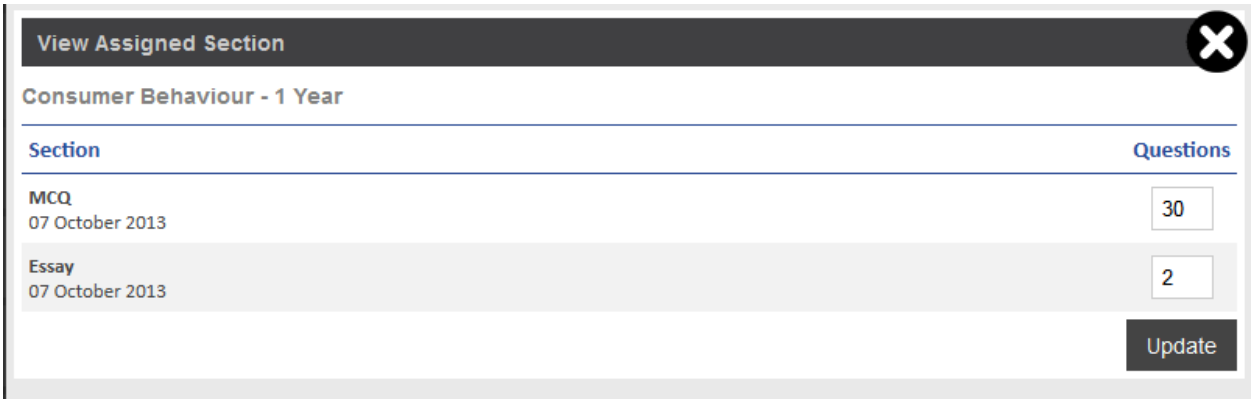
4.7(b) Add Section:

Here admin can add section for particular selected subject.



4.7(c) Assigned Section:

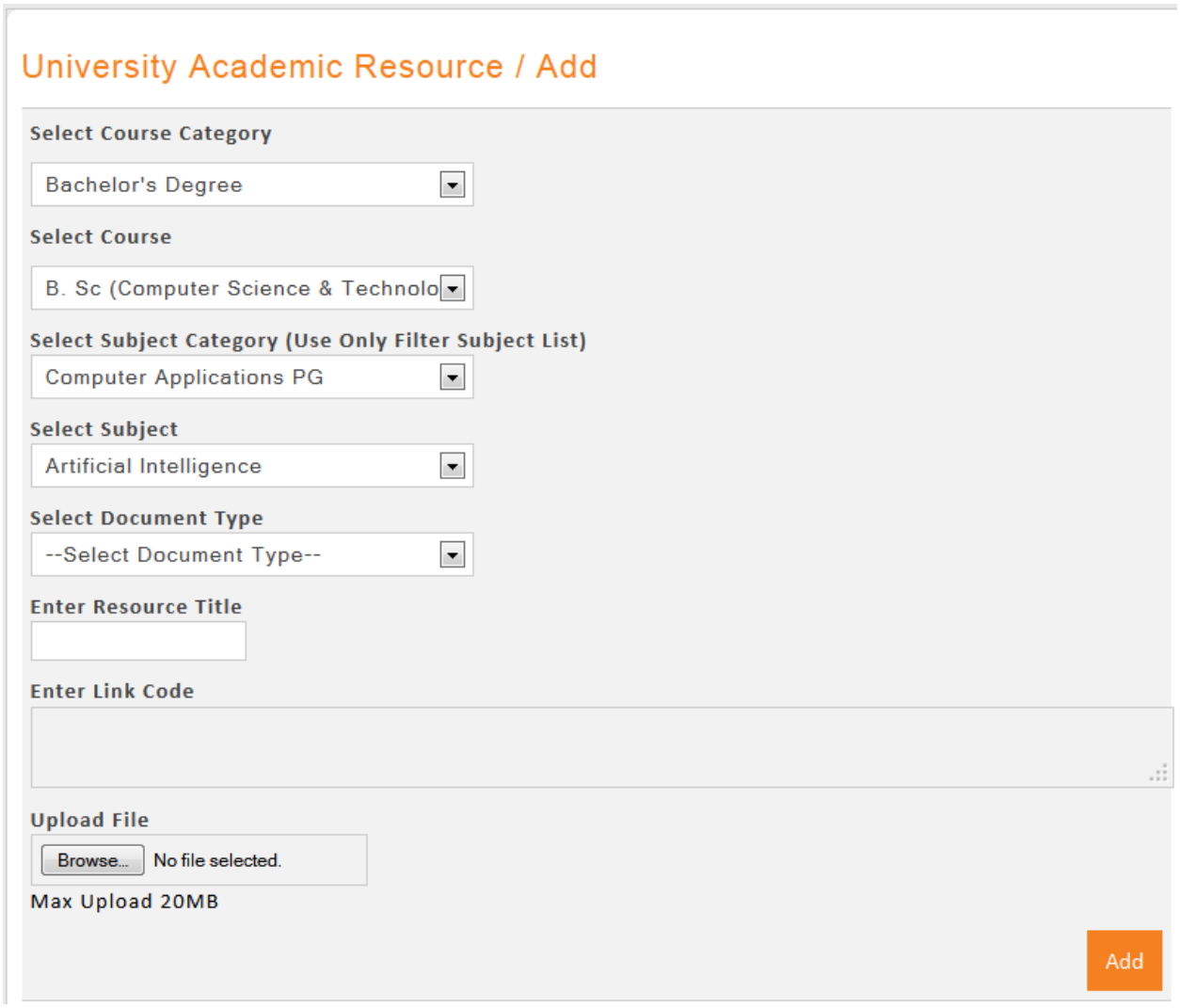
Here admin would assign number of question to a section which would appear to student during exam.



Eg. MCQ type 30 and essay type 2 questions .Admin can see result of a student. Admin can search a particular student by UID, subject, course

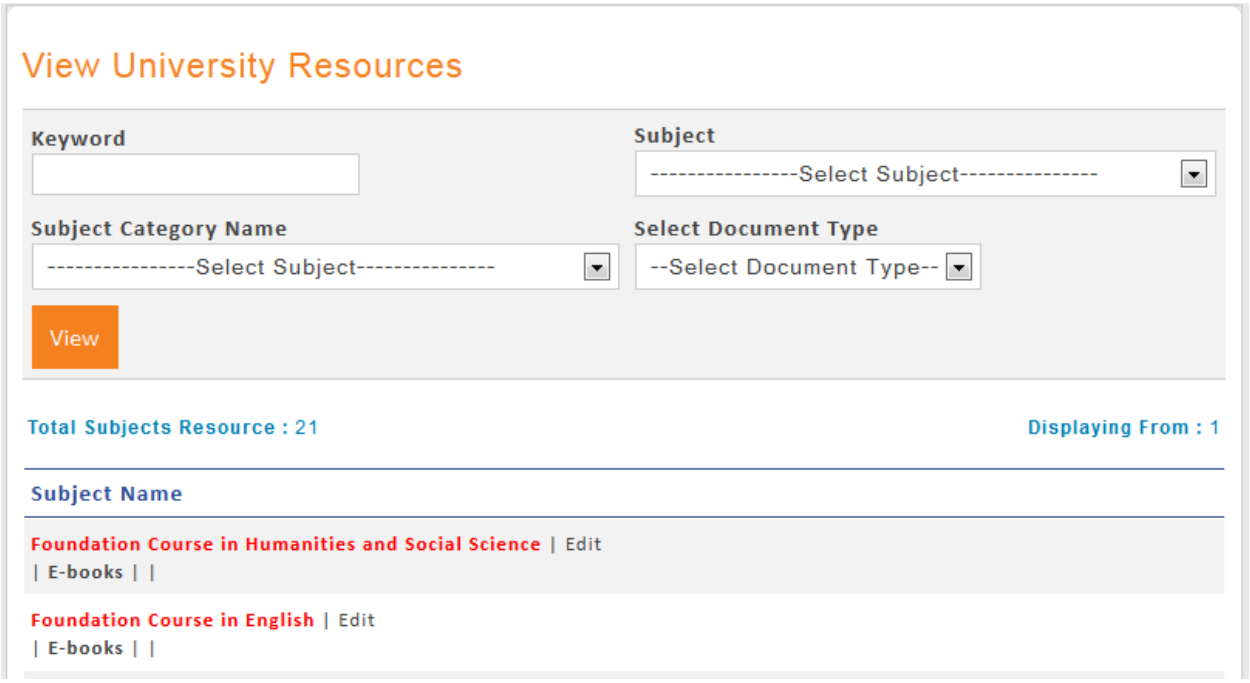
4.8 (a)Subject Resource:

In subject Resource admin can upload study material for a particular subject, Eg. PPT , videos lecture, EBook, self assessment, Syllabus etc.



4.8 (b) View Subject Resource:

Admin can search “Resource” subject wise with different search criteria such as subject category Name and document type etc.

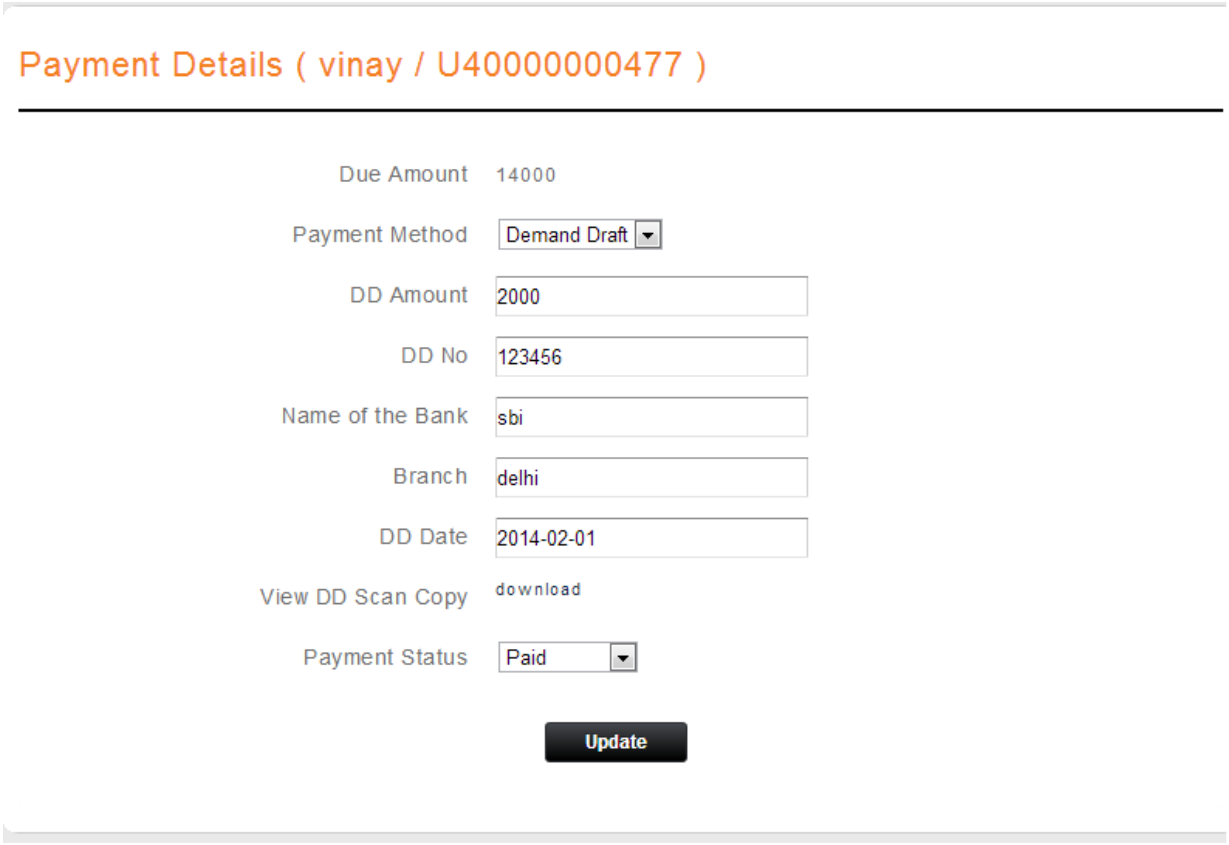


5 Finance Admin:

5.1 Verify Payment details

Finance admin would have following responsibilities:

- Verify course fees payment of student.
- Set course fees



Finance Admin can update payment status of a student as

- Paid
- Incomplete
- Verified

- Payment status “Paid” would be mark by finance admin if student has made payment.
- Payment status “Incomplete” would be mark if student has not submitted required fees for chosen course.
- Payment status “Verified” would be mark if admin has completed verification of student.



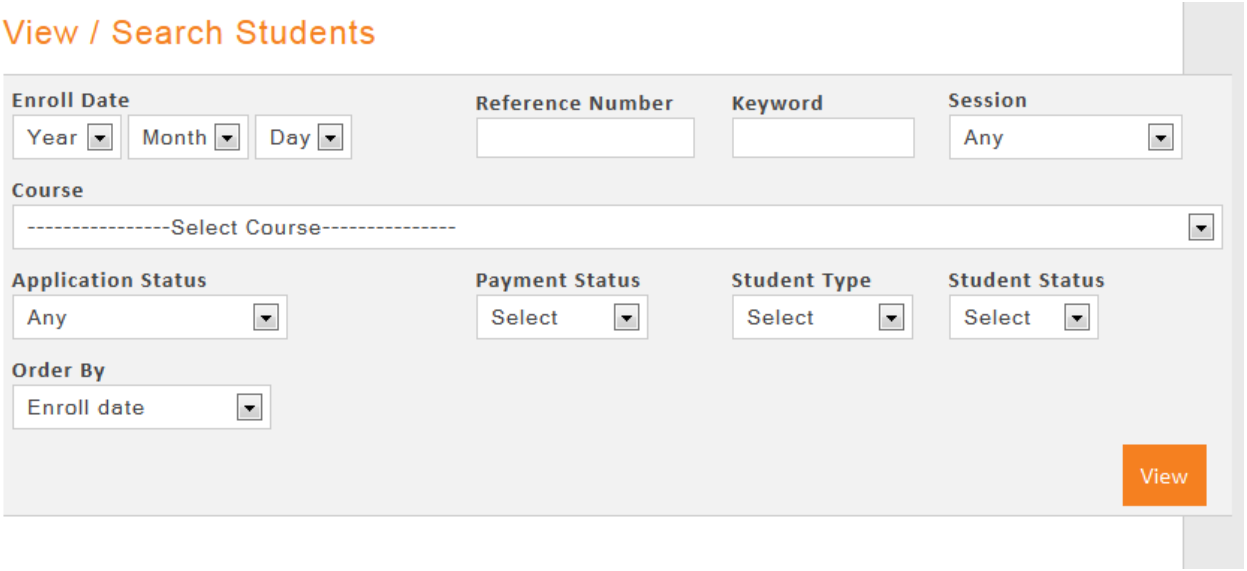
Note:

By default “Payment To Be Verify” status would be visible to finance admin.

Student would receive email alert on completion of process.

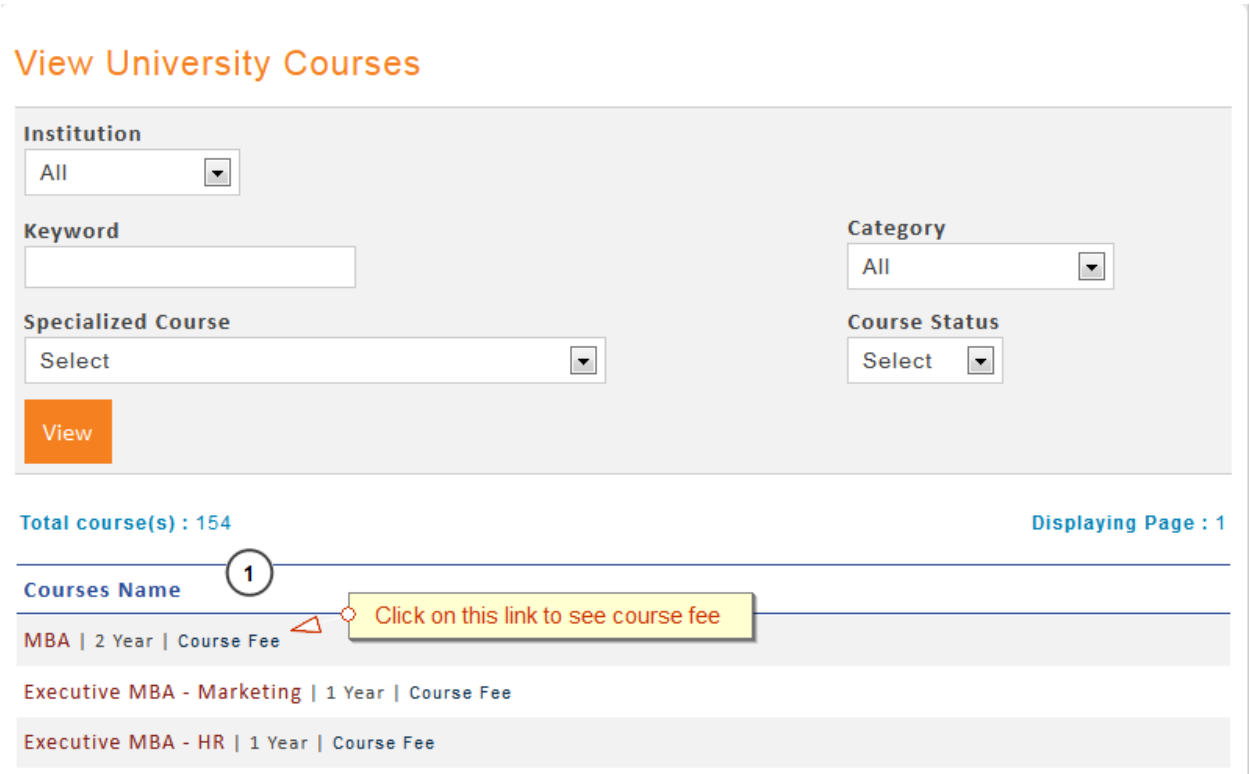
5.2 Search Student

Finance admin can find out details of a particular student by different search criteria such as Enrol date, keyword, course etc (as shown in below picture)



5.3 (a) View Course Fee

Finance admin can see detail of a particular course using search option by different criteria such as Institute, keyword, specialized course, category and course status.

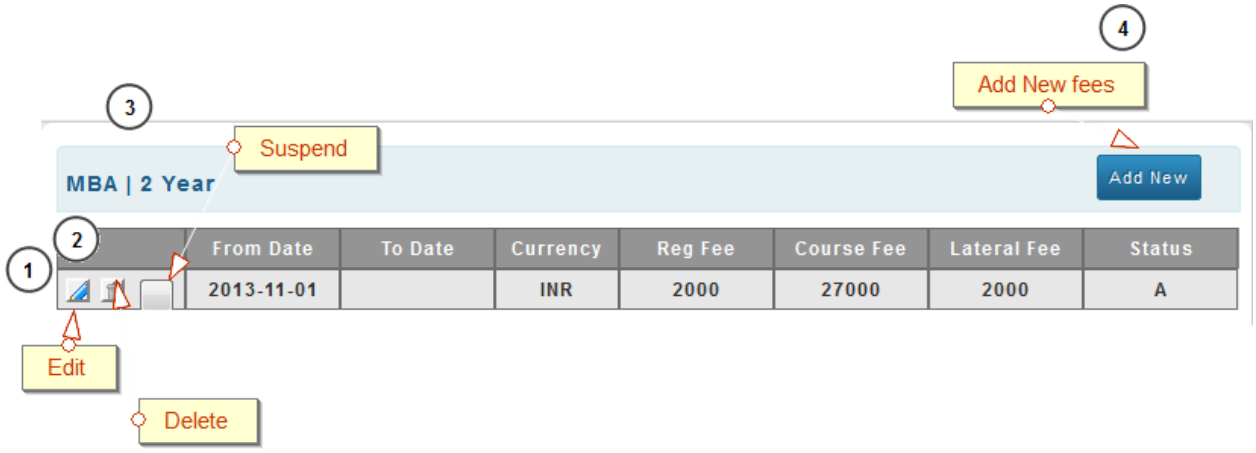


On clicking course fee link new section will be visible where admin can make following changes.

- Edit a course
- Delete a course
- Suspend a course

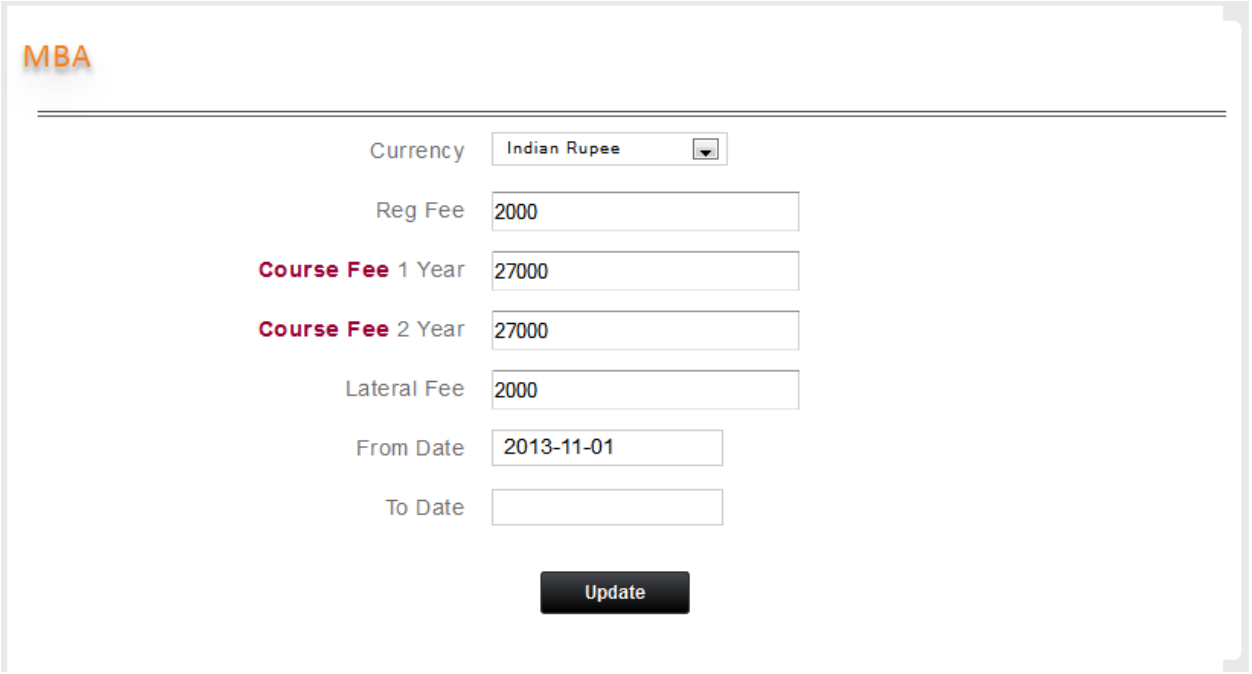
Note:

Deleted course would be removed from database where as suspended course would not be visible only website however admin can see it and active it in future.



On Clicking edit button a new window would be visible (refer blow picture) where admin can change, Registration, course fee, lateral fee, currency etc.

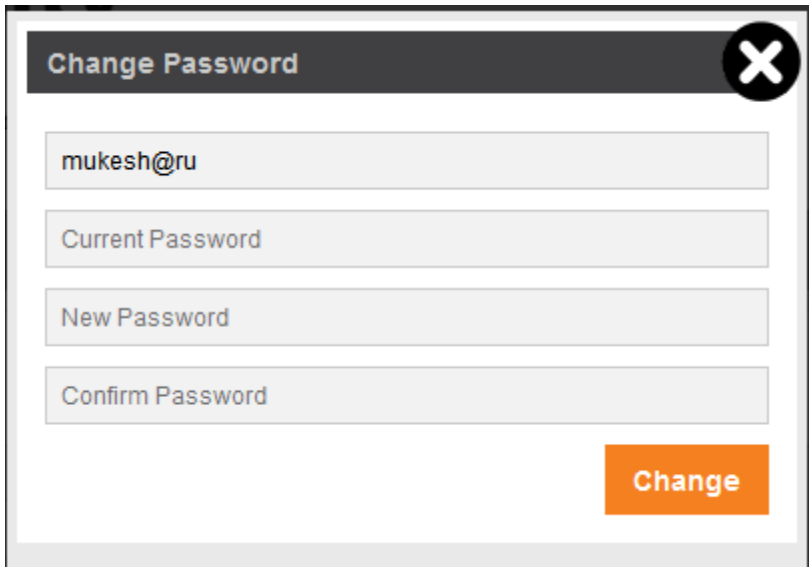
5.3 (b) Update Course Fee



Note: If admin has already defined course fee for a particular course then he can add new fees only after suspending old fees.

5.4 Change Password

Finance Admin can change his profile password in “Change password” window.



J.S.UNIVERSITY
Shikohabad, Firozabad
PIN- 283 135 (U.P.) India
website : www.jsu.ac.in

जे.एस. विश्वविद्यालय
शिकोहाबाद, फिरोज़ाबाद
पिन–283135 (उ.प्र.) भारत
website : www.jsu.ac.in

Dear Sir,

It has reference to your mail dated 26th June 2017. Our University is taken initiative in the field Digitization in the following fields:-

(1) **Result-** **Pre-Examination work -** Enrollment, Generation of the Admit cards
Post Examination work – Preparation of the results. Printing the Mark Sheets & Certificates.
(2) **Online Verification**.
(3) **Fee Collection** – Through e-Challan, e-Banking.
(4) **Library**
(5) **Attendance** – Thumb Impression attendance.
(6) **Wi-Fi Campus**.
(7) Our University Website is regularly updated. www.jsu.Edu.in , www.jsu.ac.in

Further our University is newly born. We are doing our best in this direction.

Thanking You,

Note: - Our vice-chancellor will attend the National Conversion to be held on 8th July 2017 to 11th July 2017 at Vigyan Bhawan, New Delhi. He will reach by 9th July before 10:00 a.m.

(Registrar)
Nandan Kumar Mishra

REGISTRAR
J.S. UNIVERSITY
Shikohabad, Firozabad-283 135 (UP)

Write-up on the thoughts regarding suggested points

Prof. Bhuvnesh Sharma

Vice Chancellor

Maharishi Mahesh Yogi Vedic Vishwavidyalaya, M.P.

The teaching and learning process involves the consciousness of the teacher and learner. Somehow in the field of Education Till now the emphasis is on developing the means of information without providing the teachers and students the proven techniques to explore the Sub Consciousness to enhance the ability of students to learn, comprehend and apply the knowledge gained in proper context and making teaching a joy for the teacher.

Besides the practice of Yogic Technique of Transcendental Meditation by the students and Faculty, Consciousness based teaching methods should also be adopted.

This will not only enable students to efficiently use the modern technologies but they will be able to use the knowledge Holistically being tuned to the Totality of all the laws of nature within their on silent Transcendental level of Consciousness.

The administration will then naturally be based more on Conscience of the administered so that laws will be followed smoothly and the administrative laws will also be based more and more in tune with the Laws of Nature which administer the whole universe in perfect order.

As far as research is concerned the researches have not to be only based only on physical manifested level of nature but the

researchscholarsshould be trained to explore the sub- Consciousness and also the Vedic Literaturehaving the great insights of the Great Sages of Indiafrom time Immemorial should be studied to explore the Holistic knowledge in different fields of life. The approach of modern Science is partial and limited giving progress but also creating problems for individual and the environment while Vedic Technologies are Holistic, good for the individual, for the society and for the whole environment.

Indian Culture has always been Innovative and provider of perfection in life. Even the Pauranic stories have great scientific knowledge hidden in them. The tradition of Master disciple relation with dedication, devotion and practical application of knowledge was producing scholars living life blissfully and creating peace in society. They were having ability to make right decision spontaneously. By applying Vedic technologies and practice of Transcendental Meditation and TM Siddhi program not only the students will have values in life, good health and success in their lives but also our Colleges and Universities will become Peace creating centers for the whole world through the field effect. Now the time has come to use modern technologies in context of Vedic technologies, which will make the Indian Universities to lead the world.

If provided an opportunity it will be my joy to come and elaborate on the above suggestions through power point presentation and other relevant literature.

Prof. Bhuvnesh Sharma
Vice Chancellor
Maharishi Mahesh Yogi Vedic Vishwavidyalaya, M.P.

DIGITAL INITIATIVES OF THE NORTHCAP UNIVERSITY, GURUGRAM

The NorthCap University has taken several initiatives towards digitization of academic teaching, learning, placement and administrative process, as well as facilitating our current and passed out students. Some of the key initiatives are as follows:-

1) Learning Management System (LMS) for students.

The NorthCap University has provided students a comprehensive learning system as a supplement to classroom teaching – an e-learning portal called the Learning Management System (LMS) which provides online access to the course content of every course offered and important information related to the different subjects running through the semester such as lecture notes, recommended reading, tutorial sheets and assignments. Students are encouraged to use this portal to prepare themselves before coming to class, so as to have a better understanding of complex concepts. The system is running successfully for the past 7 years and very useful for students.

2) Virtual Labs

This University functions as a Nodal Centre for Virtual labs, an MHRD initiative under National Mission for Education through Information Technology, wherein the Labs and resources of eight IITs are at our disposal through remote triggering for utilization for teaching and research by students and Faculty. In particular the Virtual lab program of IIT, Delhi has been the main resource.

3) Spoken Tutorials

An MOU has been signed between IIT, Bombay and this University for Spoken Tutorial Project where-in our students are getting access to various software training programs run by IIT, Bombay and upon successful completion of the course are awarded certificates.

4) QEEE Programme

This University in association with IIT Madras is successfully running for last three years the QEEE program (Quality Enhancement in Engineering Education) under which learning of various subjects is supplemented by special lectures by professors from IITs. This has been providing our students with an opportunity to get exposure to renowned subject experts. The program offers live classes, course pack, live labs on engineering courses such as Processor design, Digital Electronics, Electromagnetic Theory, Signals and Systems, Control systems etc. On successful completion, students are being certified by IIT, Madras. The program is highly popular with students.

5) Bio-Metric Attendance

During the academic session, students are expected to attend all lectures, tutorials, practical classes and VA courses. The attendance is captured through the biometric devices placed in the class rooms, Labs and tutorial class rooms instead of the manual system. The method besides being reliable and ensuring personal identification; significantly saves time and attendance recording costs affording additional time for teaching instead.

6) Auto-compilation of marks after end semester Examination

The University has adopted a Relative Grading System across all disciplines for fair and balanced evaluation of students. Compilation of marks towards preparation of results of the end semester Examination is software driven to obviate errors and a process of moderation of results using a bell curve is used so that deviation due to evaluation by different faculty of the same course is taken care of. This has also resulted in speeding up the process of result publication within three weeks of the tests.

7) Auto-advisory to students

As part of instant and effective communication, all students are automatically sent an SMS on their registered mobile informing important updates like date of tests, attendance update, talks by Experts or any other academic or cultural activity meriting their attention instead of referring to Notice boards and website.

8) Shodh Ganga

The University has signed an MOU in 2015 with INFLIBNET Centre subscribing to 'Shodhganga' which denotes digital repository of Indian Electronic Theses and Dissertations and is the reservoir of Indian intellectual output stored in a repository hosted and maintained by them.

Shodhganga has provided a platform for the University's research scholars to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. The repository has the ability to capture, index, store, disseminate and preserve ETDs (Electronic Theses and Dissertations) submitted by the researchers. This facility is of immense help and value for faculty in pursuit during research.

9) National Academic Depository (NAD)

The University has subscribed to the recent initiative of MHRD and UGC set up National Academic Depository NAD) which facilitates Academic Institutions to digitally secure and quickly upload student's academic awards on the authorized Depository Company's portal which then transfers them into the digital locker assigned to a student. Salient features of the NAD are as under.

- World-wide accessibility of the Digital Locker by the student 24x7 using his UID Aadhaar number or a NAD id. Aadhaar numbers of all the students have been captured by the University.
- A student will be able to view or print a copy of his academic awards viz. Detailed Grade sheet (DGS), Degree certificate and Transcript or specifically authorize an employer or verification agency to verify his certificates through the approved Depository Company viz. CDSL (Mumbai).
- Services of the Depository Company being free of cost for students up to the age of 27 and services would become operational with Academic awards of year 2017-2018 onwards.

10) Interactive Learning and Self Learning & MOOCS

A robust system of prior assignments and self-study is vigorously encouraged where students are asked to prepare certain topics before the class or tutorial based on which they are assessed. NPTEL(National Programme on Technology Enhanced Learning) and UGC MOOCs as a resource of supplementary reading material is suggested vastly improving and making the learning system and process two way instead of the usual lecture method. Some of the UGC MOOCs which have been selected for 2017 are:

- Applied Multivariate Statistical Modelling
- Data Structure & file processing
- Artificial Intelligence
- Noise and its measurement

11) On-Line Tests

Two online tests per course per semester are a part of the semester curriculum that provides a simplified evaluation system adding to the student's academic efficiency besides helping imbibe an online culture as the student graduates. In addition,

12) Employability Assessment Tests

Third party assessment tests developed by Co-Cubes, one of India's largest assessment and hiring platform Company have been entered in an Agreement are organized by the University for all students and are compulsory. The Test score card of this Company is accepted by almost 400 top recruiters in the country and is helping in our Placement Process, apart from bench marking learning outcomes with the Industry requirements.

12) National Digital library and E-brary

University has a vibrant Library and Information Resource Centre (LIRC), which offers the latest services with on-line access to e-journals, e-books, Webopac facility, federated search engine 'KNIMBUS' offering single window access to all subscribed resources for use by students in the Campus and hostels. LIRC has a dedicated Multimedia Library where computers have been installed for online access to international journals. E-Brary (e-books database) having 1,20,000h e-books. All these resources have IP based 24x7 access and are accessible to students and faculty from anywhere, through remote access facility. In addition, the recently established National Digital Library by IIT, Kharagpur has been circulated to all students and faculty to register before commencement of new semester on 24th July 2017.

13) NKN (National Knowledge Network)

This University has been enlisted as one of the beneficiary of NKN, a state-of-the-art Pan-India network. Using NKN, a Private University like NCU shall be on and even footing as some of the leading Institutions.

- Establishment of a high-speed (1GBPS) backbone network connectivity which will enable knowledge and information sharing on real time basis.
- Link to Global Networks to collaborate with the research communities across the globe.

14) ERP & E-Governed campus

Committed to the automation of various academic, financial and administrative processes, the University has provided an advanced Enterprise Resource Planning (ERP) system based on cloud computing, through a tie-up with Digiuniv. The University has a fully wi-fi enabled campus providing uninterrupted access to the Internet for all students giving remote access to students 24x7 of our e-resources.

14) Placement Portal for Graduating Students

Ultimate aim of teaching and obtaining a Degree is to get successfully placed. The School of Professional Attachment of the University is fully automated. The placement portal is extremely useful as a tool for all communication with students and Alumni while facilitating the undermentioned features.

- Registration of students on the University Placement e-portal.
- Posting the recruiting Company's profile and job profile of person to be recruited.
- Posting schedule during campus placement drives
- List of successfully selected students
- Schedule of talks by invited Industry experts/CEOs of various Companies.
- Registration of Alumni.

16) Facility of On-line Courses

In order to broaden horizons and give an international exposure, all students and faculty are encouraged to register for online courses from various Universities across the world, which include MIT, Harvard, UC Berkeley and University of Texas. Suitable number of Credits allotted after successful completion of the course and as per both the University norms; provide an edge to students graduating. The purpose of a society called FOSS (Free and Open Source Software) has been established at the University which keeps a tag on useful open source software and programs.

17) Conclusion

With the above digital initiatives, the NorthCap University was conferred as the best E-Governed University Campus by Government of Haryana as early as 2013-2014 and has continued with its digital journey thereafter.



Ref: OPJU/UGC/2017/92 **Date:** 29th June 2017

To,
The Secretary
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi - 110 002

Sub: National Convention on Digital Initiatives for Higher Education at Vigyan Bhavan, New Delhi.

Sir,

With reference to your D.O.No.F.1-1/2017 (Secy) dated 26th June 2017 and subject cited above, please find enclosed herewith a brief write-up on the initiatives taken in the field of digitization by OP Jindal University, Raigarh (CG).

Thanking You.

For OP Jindal University

(Registrar)

Encl: As above

OP JINDAL UNIVERSITY
OP Jindal Knowledge Park, Punjipathra, Raigarh - 496109, (C.G.)
t: +91 7762 304 000 www.opju.ac.in

Digital Initiatives: Academics

1. **NPTEL Local Chapter** – University has established a NPTEL Local chapter with an objective to provide free local access of quality contents from IITs and other institutes to the students and spread awareness amongst students regarding various MOOC courses and certifications. Students actively enrol and undergo the MOOC courses of NPPTEL.

2. **Moodle** - University uses Moodle for various purposes as mentioned below:
    a. Conduction of regular online tests. Test score is an important parameter for students' assessment.
    b. Video lectures and course notes have been made available for the students to access online.
    c. We are using it extensively for the surveys and feedbacks related to teachers, course, subjects and trainings.
    d. We use Moodle for Online quiz conduction and preparation of placement related activities

3. **Online Exam Conduction** – OPJU is probably the only university in India conducting main examination of programming subjects like C, C++, OOPs using Java etc in a complete online mode. Examination paper consists of Objective, subjective and programming questions. We make use of Moodle and other plug-ins to conduct the exams in a systematic manner. A proper framework has been developed to make the system fault tolerant, cheating proof, transparent evaluation and third party auditing.

4. **OPJU Intranet** – University maintains an Intranet which is a repository of curriculums, syllabus, previous years' question papers, notes, PPTs, eBooks and provide quick links/references to many Institutional activities.

5. **Spoken Tutorials** – OP Jindal University actively conducts IIT Mumbai spoken tutorial workshops on variety of topics. It really helps students as well as faculty/staff to learn the basics of the things in a convenient fashion at his own pace and timing.

6. **MOOC** – As a university we encourage students to participate in various MOOC courses like SWAYAM, EdX, NPTEL etc. We also recommend students to undergo proctored exams conducted at various centres across India.

7. **FOSS** – University promotes the use of free open source softwares. We are using FOOS like SCILAB, NS2, mySQL, Java, GNU C/C++, Apache HADOOP, PHP etc for the teaching /learning purpose. We encourage the use of LINUX OS instead of Windows to save on licensing cost and more robust to security threats.

8. **Virtual Lab** – We are using virtual programming lab (VPL) to teach computer programming language like c, c++, java etc in an efficient manner. Experiments or conducted and submitted online, evaluation is automatic with various features to check plagiarism, awarding marks etc.

9. **Digital Library-** The Digital Library has been installed with 20 dual monitor systems to access institutional repositories. It's a unique design that helps students learning, keeping track of thins, taking

29.6.17

notes etc on another monitor and later on archive it for future use. The library page provides links to various libraries, local, national and foreign newspapers, electronic journals, and electronic books, Collection of CD & DVD, NPTEL Video Lecture research guides by subject and many free internet resources.

Digital Initiatives: Finance and Accounts

A. REVENUE-

- No Fees are being accepted in CASH.
- SBI Collect facility has been initiated by the University with the designated SBI Branch to facilitate collection of fees electronically.
- SBI has provided the University with swipe machine and fees are being collected electronically.
- We are in the process of creating e-handshake option on our website to facilitate easier collection of fees.
- Students have been instructed to deposit fees by way of Demand Drafts/NEFT/RTGS in the designated bank accounts, or use SBI Collect facility.

B. EXPENDITURE-

- All payments to vendors are being done preferably through NEFT/RTGS.
- E Banking facility has been discussed with the designated branch and implementation for the same is awaited from the branch.
- Staff and students have been apprised of SBI Buddy whereby they can do their personal transactions electronically.

29.6.17

O.P. JINDAL UNIVERSITY Raigarh

National Convention on Digital Initiative for Higher Education
8-10, July 2017

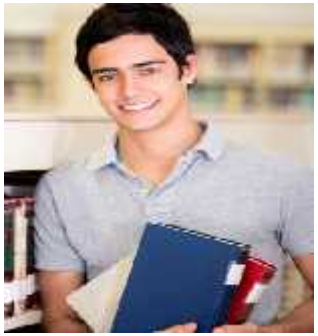
Presentation: Oriental University, Indore



1. Vision

- To carve-out the University as a distinctive global university with strong linkages with national and global stakeholders particularly business and foreign universities and meeting the national needs consistent with holistic approach to prepare human capital with integrity embodied with values, balanced mindset combined with economic and service approaches to contribute to the sustainable development of India.

Human Resource to Human Capital: Supply Chain



Bridge Courses

Entrepreneurial Skills

Industry & Community: Conventions & Webinar

Input: Human Resource: Schools & Colleges Awareness, Assistance

Core: Teaching, Research& Publications

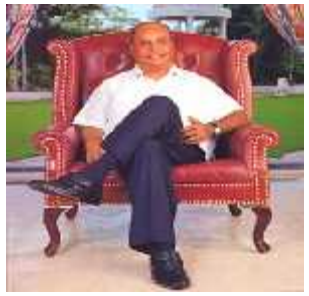
Knowledge: Creation& Application

Output: Human Capital: Graduates with entrepreneurial, Soft, ethical and Networking Skills

Soft& Ethical Skills

Student Research & Publications

Community Outreach



1. Teaching& Learning

- Teaching: Environment, Resources, Pedagogy
- *720^0* Student Inclusiveness, Engagement and Development- Internationalization
- *720^0* Faculty Inclusiveness, Inspiration, Engagement, Recognition and Development
- Teacher –Manager -Global Teacher:Exchange
- Courses: Relevance, Standards, and Quality
- International Collaborations
- Non-Conventional Sources of Funds: Research
- Sustainable Environmental perspective

Teaching& Learning (Contd.)

- Learning: Environment, Resources, Pedagogy
- Inquest students
- Flipped Learning and MOOCS.
- Critical Thinking, Creativity, Flexibility
- Class: Variety of Pedagogy, Joint Teaching, Teaching by demonstration- Animated Labs

Student Engagement

- Spiritual Gurus' Presentations.
- Social Entrepreneurs' Presentations.
- Exclusively Women Entrepreneurship centre.
- Start-Up/ Incubation Centres within University
- Assist the local entrepreneurs through Start-up and Stand-up programs
- Entrepreneur Assistance centres by coordinating various government and NGOs.
- Psychological Couselling., Career Counselling.
- Personal Financial Planning.
- Health Centre.
- ***I-Pads with Learning Resources with the assistance from business.***

Unique Courses

- *Hybridization of Courses: Data Science& Predictive Analytics and similar niche domains.*
- *Buffet Approach/ Multi-disciplinary approach.*
- *Master Courses by Research.*
- *Technology & Sciences, Humanities, Creative Arts Disciplines*
- *Industry, Entrepreneurship and Community: Due Emphasis-Practice based*
- *Flexible Courses, Bridge Course in English Language, Foreign Languages.*

Unique Courses

Sustainable Development,

Developmental leadership

Entrepreneurship , Innovation and Change.

Law in International and Corporate Laws

Customer Analytics

Supply Chain Analytics

Finance Analytics

Data Science, Data Analytics,

Multi-Disciplinary Bachelor, Diploma and certificate courses

2. Innovations in Administration

- *Multi-skills*
- *ICT skill training*
- *Training programs in Soft Skills*
- *Diploma and certificate programs*
- *Welfare programs*
- *Workshops for continuous interactive development*
- *Involvement in various academic and administrative areas*

Administration: Non-Conventional Funds for Student and Staff Development

- *Attract foreign students.*
- *Corporate Linkages*
- *Consultancies.*
- *Assistance from Alumni Association.*

3. Research

- Research culture: Incentives, promotion requirement, salary increase….
- Use of research results in teaching
- Collaborative research: Senior and Junior Teachers, National and international
- Collaborative International Research and Conferences
- Consultancy and use its findings and results in teaching, Funding agencies
- Top-down and bottom-up research
- International and team research and publications
- Action Research-DBA, Ph.D in Technology, Multi-disciplinary research

4. Community Outreach

- *Women in Engineering and IT*
- *Financial Inclusiveness*
- *Capital Accumulation and Investment*
- *Digitalization*
- *Health and Sanitation*
- *Legal and Security*

Community Outreach

- *Entrepreneurship& Support*
- *Interpersonal Relations and Community Harmonization*
- *Little Courses*
- *Politician-Customer Service*

5. Digital : Academic& Administration

- *Paperless - Process automation using ERP*
- *Course management tools: Learning Management & Content Management Systems*
- *Virtual Teaching, Learning & Assessment*
- *Digital Library and content resources, Animated Labs, Creative and Interactive learning tools*
- *Collaboration: Share learning resources and conduct virtual conferences and research*
- *Internet of Things and SMAC: Social, Mobile, Analytics and Cloud*

Digital : Academic& Administration (Contd.)

- *ICT used from enquiry (by college students and for their development) to Alumni coming back to University stage. This includes in all throughput stages continuously.*
- *ICT used in all areas including teaching, learning, real-time teaching and practicals, assessment, administration, community outreach, research, consultancy, publications, social and cultural programs, sports and all other co- and extra-curricular activities.*

Oriental University, Indore

Vision: To carve-out the University as a distinctive global university with strong linkages with national and global stakeholders particularly business and foreign universities and meeting the national needs consistent with holistic approach to prepare human capital with integrity embodied with values, balanced mindset combined with economic and service approaches to contribute to the sustainable development of India.

Teaching and Learning: Our innovative methods of teaching and learning include: environment, resources, pedagogy, 720^0 student inclusiveness, engagement and development, internationalization, 720^0 faculty inclusiveness, inspiration, engagement, recognition, teacher – manager -global teacher exchange, international collaborations, creation of learning environment, resources, pedagogy and students' inquest, flipped learning and MOOCS, imparting critical thinking, creativity, flexibility, joint teaching, teaching by demonstration, animated labs, spiritual Gurus' presentations. social Entrepreneurs' presentations, entrepreneurship centre, incubation centres, psychological couselling, career counseling, personal financial planning. health centre, I-Pads with learning resources with the assistance from business.

Unique Courses: Measures of unique courses include hybridization and buffet approach, and multi-disciplinary approach. Some of the unique courses include: Sustainable Development, Developmental leadership Customer Analytics and Supply Chain Analytics.

Administration: Innovative administrative measures include attract foreign students, corporate Linkages for scholarships etc., consultancies, and assistance from alumni association.

Research: Innovative research measures include: Creation of research culture like incentives, promotion requirement, salary increase, use of research results in teaching, collaborative research, research in community outreach programs, internationalisation of research and action research.

Community Out-Reach: Community Outreach measures include: encourage women in Engineering and IT, financial inclusiveness, capital accumulation and Investment, digitalization, health and sanitation, community harmonization, politician-customer Service etc.

Digital : Digital measures include: Paperless office, process automation using ERP, course management tools, learning management and content management systems, virtual teaching, learning and assessment, digital library and content resources, animated labs, creative and interactive learning tools, collaboration, share learning resources and conduct virtual conferences and research. ICT is used in all areas including teaching, learning, real-time teaching and practicals, assessment, administration, community outreach, research, consultancy, publications, social and cultural programs, sports and all other co- and extra-curricular activities, internet of things and SMAC.

PARUL UNIVERSITY

Office of the Registrar
June 29, 2017

Sub: Digitization of education in Parul University

The University has taken up the following measures towards digitization of education:

- Google Classroom has been introduced in all the degree programmes for all academic requirements such as posting tutorials, assignment submissions and correction of tutorials
- Most of the classrooms are fitted with digital equipment for effective delivery
- The University conducts workshop on Virtual Laboratories
- The admission process in the University is made online
- The transactions, which the students make such as payment of fees, applications for different requirements etc.., are made online
- The syllabus for different courses offered in the University are made available to the students on the University Website
- The entire administration of examinations is effectively implemented through the Management Information System (MIS)
- Paperless Administration is implemented through the usage of internet
- The tests are conducted on MOODLE
- Webinar facilities are extended to students for an effective learning atmosphere.
- The library system in the University is completely digitized.
- The students have been provided the facility of INFLIB-NET to have access to the material available in libraries of other universities.
- In order to encourage teachers to adopt technology in classroom, teachers have been provided with the laptop facility at subsidized rates.
- The leave accounts of all staff are made online.
- The results of the examination are made available to the students online and students have an easy access to the application through internet.
- NTPL Videos for learning
- All application for recruitment are invited online
- SKYPE Application is used for conducting interviews of candidates online.
- Facility of E-Copies of Gradecards is extended to students of the University.

Registrar

PEOPLE'S UNIVERSITY
(Established by MP Act No. 18 of 2011 & approved u/s 2 (f) of UGC Act 1956)
ISO 9001 : 2008 Certified

D.O./PU/VC/ 2017/ 479

Date: 04-07-2017

By Email/By Speed Post

Dear Prof. (Dr.) Jaspal S. Sandhu,

This is in reference to your D.O. Letter No. F-1-1/2017 (Secy) dated 26th June 2017, regarding meeting with Vice-Chancellors of All Private Universities on 10th July 2017 in Vigyan Bhawan, New Delhi for **"National Convention on Digital Initiatives for Higher Education"**.

I am grateful to you for your kind office letter and would have been obliged to attend above meeting. But coincidentally I have to be admitted & investigated on 10th July 2017 itself at Bombay Hospital, Mumbai.

I regret for my absence during above event.

With kind regards,

Thanking you,

Your's Sincerely

VKPandya 04.07.17

(Dr. V. K. Pandya)
Vice Chancellor,
People's University

To,
Prof. (Dr.) Jaspal S Sandhu,
Hon'ble Secretary,
University Grants Commission,
Bahadur Shah Zafar Marg,
New Delhi 110002

SGT UNIVERSITY

SHREE GURU GOBIND SINGH TRICENTENARY UNIVERSITY

(UGC Approved) **Gurugram, Delhi-NCR**

No.SGTU/UGC/04/2017 Dated: 29.06.2017

To,

The Secretary,
University Grants Commission
Bahadur Shah Zafar Road
New Delhi – 110002

Subject: National convention on digital initiative for Higher Education

Sir,
This has reference to your D.O letter No. F.1-1/2017 (Secy) dated January 26, 2017 pertaining to the subject cited above in which your office has also asked to send a brief write-up on the initiatives taken in the field of digitalization. In this regard it is stated that the following services have already been digitalized by the SGT University in various departments like;

Enterprises Resource Planning (ERP)
Admissions, Student Registration, Fee, Hostel, Transport, Examination, Mess, Student lecture schedule, leave and attendance, Examination schedule and Results.

General Hospital/Dental Hospital/Ayurvedic Hospital
OPD & IPD, Central Lab investigation, X-Ray Department, Medical Record Section, Billing Section, CT scan & MRI

Library, KOHA software
Issue and return of books, Research paper, online and offline Journals

Further, the university is continuing to digitalize the remaining service imparting to all kinds of stakeholders.

Submitted for your kind consideration and further necessary action.

(Daleep Singh)
Pro Vice Chancellor

Phone : 0124-2278183-85, Fax : 0124-2278151 Website : www.sgtuniversity.ac.in Email : info@sgtuniversity.org
Budhera, Gurugram-Badli Road, Gurugram (Haryana) – 122505

4.3 IT Infrastructure

4.3.1 Does the university have a comprehensive IT policy with regard to

- IT Service Management

  Enterprise Resource Planning is vigorously being implemented in the University for Paperless Office work.
- Information Security

  The university is committed to stop unethical use of internet service. Strict policy is in place in this regard by using policies in firewall. Some of the important security measures are, non-sharing of the password, username account, improper use of IT resources and damaging university IT resources etc.
- Network Security

  Our network is protected by a firewall so that potential threats from external access are filtered out. Internally it is accessible only through username, passwords, queries, MAC filtering and many encryption technology. Servers are protected by Uninterrupted Power Supply against Power outages.
- Risk Management

  Data are secured with regular backups. Three copies of daily backups are maintained. RAID technology is used for preventing data loss.
- Software Asset Management

  Original copies of licensed software are kept in a secure place and copies are used for user installations.
- Open Source Resources

  We are encouraging the faculty & students to use the open source software. We have setup a separate LINUX lab with all of the open source software for this purpose.
- Green Computing

  The University is planning to implement the policy from the current session.

4.3.2 Give details of the university's computing facilities i.e., hardware and software.

- Number of systems with individual configurations
- Computer-student ratio
- Dedicated computing facilities

Number of systems with individual configuration	1500
Computer-student ratio	1:6.3
Dedicated computing facilities	Provided
Wi-Fi facility	Yes
LAN facility	Provided in all Campus
Proprietary software	UMS (University Management System), HIS (Hospital Management System) , Android App ,Centralized CCTV Surveillance , in-house data centre , LIS(Laboratory Information Management), Employees Management System, Official email ids, blood bank system and task manager

No. of Nodes/computers with internet facility	750
Any other, please specify	

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

Since inception of the University, we have been regularly upgrading our computing facilities. In the last 2 years we have installed two new servers to meet the database requirements. More such enhancements shall be carried out whenever the situation calls for. Every year as per the demand of the concerned institution purchase is placed and required service, equipments are provided in a proactive way.

4.3.4 Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching, learning and research.

The University has subscribed four on-line database for the enhancement of teaching and research. Faculty members are provided with the log in id and password for using the access. The data base is updated regularly. The university participates in *Shodhganga* by depositing the Ph.D. theses with INFLIBNET for electronic dissemination through open access. MoU has been signed with SHODHGANGA in this regard.

4.3.5 What are the new technologies deployed by the university in enhancing student learning and evaluation during the last four years and how do they meet new / future challenges?

The following technologies deployed by University are:

- **Use of Electronic Gadgets, such as LCD Projectors.**
- **Provision of online database in central library**
- **Participation in Webinars**
- **Use of Tablets and laptops**
- **A Wi-Fi/LAN enabled internet facility is available in all the institutions.**
- **Online examination**
- **Online Result**
- **Online mark sheet.**

4.3.6 What are the IT facilities available to individual teachers for effective teaching and quality research?

- **An uninterrupted high-speed internet facility gives wide scope to the faculty members for doing research and connecting them with international research community.**
- **Computers are available in the department**
- **Classrooms are equipped with multimedia system for power point presentation.**

4.3.7 Give details of ICT-enabled classrooms/learning spaces available within the university? How are they utilized for enhancing the quality of teaching and learning?

85% buildings of the University have Wi-Fi connectivity. LAN facility is available in rest of the buildings. 50% of classrooms are equipped with LCDs. This helps faculty members to participate in virtual classroom teaching, laboratory sessions and

webinars. With this, traditional classrooms have been transforming into a space of joyful learning.

4.3.8 How are the faculty assisted in preparing computer-aided teaching-learning materials? What are the facilities available in the university for such initiatives?

The University has provided conducive physical ambience to each and every faculty member with independent cabins having state-of-the-art facilities, departmental provision for printer/scanner/Xerox machines; sophisticated and well-equipped research laboratories; as well as centralized computing services.

4.3.9 How are the computers and their accessories maintained?

The University has appointed hardware and software engineers who frequently check and repair the computers in the entire campus.

4.3.10 Does the university avail of the National Knowledge Network connectivity? If so, what are the services availed of?

Yes, the University has already signed MoU with NKN in which we are having 1 Gbps internet band width with Huawei Firewall and router with 16 manageable switch. Whole network has been implemented on 24 core fibre.

4.3.11 Does the university avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?

Yes, the University has internet connection in all the departments by which it can avail the web resources. It encourages its teachers to access online resources through moral and ethical ways.

4.3.12 Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the university.

The University has established IT department to provide prompt service to the ICT need of the University. In the financial year 2015-16 Rs. 85,59,000/- has been spent for purchasing software for academic and administrative purposes. There is no constraint in terms of budgetary allocation for updation and upgradation of facilities.

4.3.13 What plans have been envisioned for the gradual transfer of teaching and learning from closed university information network to open environment?

- **The University encourages all the faculty members and students to participate actively in seminars, conferences and workshops organized by various reputed agencies/organizations.**
- **The faculty members and students are encouraged to participate in various faculty empowerment programmes and also participate in competitions organized by other Institutes.**

ARNI UNIVERSITY
bringing ambition in life

No. Admn/ 9860

Date:04th July 2017

To,

The Secretary
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi-110002
E mail:digitalinitiatives.ugc@gmail.com

Dear Sir,

1. Reference to your D.O.Letter No.F.1-1/2017 (Secy), dated 26th June 2017.
2. It is to inform you that the Vice-Chancellor is in the Hospital for his eyes surgery and presently there is no Pro-Vice Chancellor who could attend the National Convention on Digital Initiatives in Higher Education as per your instructions.
3. It is, therefore regretted that there can't be any representation from the Arni University in the aforesaid National Convention.

Arni University,

Registrar

Registrar
Arni University
Kathgarh Indora (H.P.)



"KVASU: Ideas in Action"

- Established Dec 2010
- Started functioning after trifurcation from Kerala Agricultural University from May 2011 onwards.
- 3 Faculties & 8 Constituent colleges







Veterinary Science

- CVAS, Mannuthy
- CVAS, Pookode
- CDST, Chettachal

Dairy Science

- CDST, Mannuthy & Pookode
- CFT, Thumburmuzhy

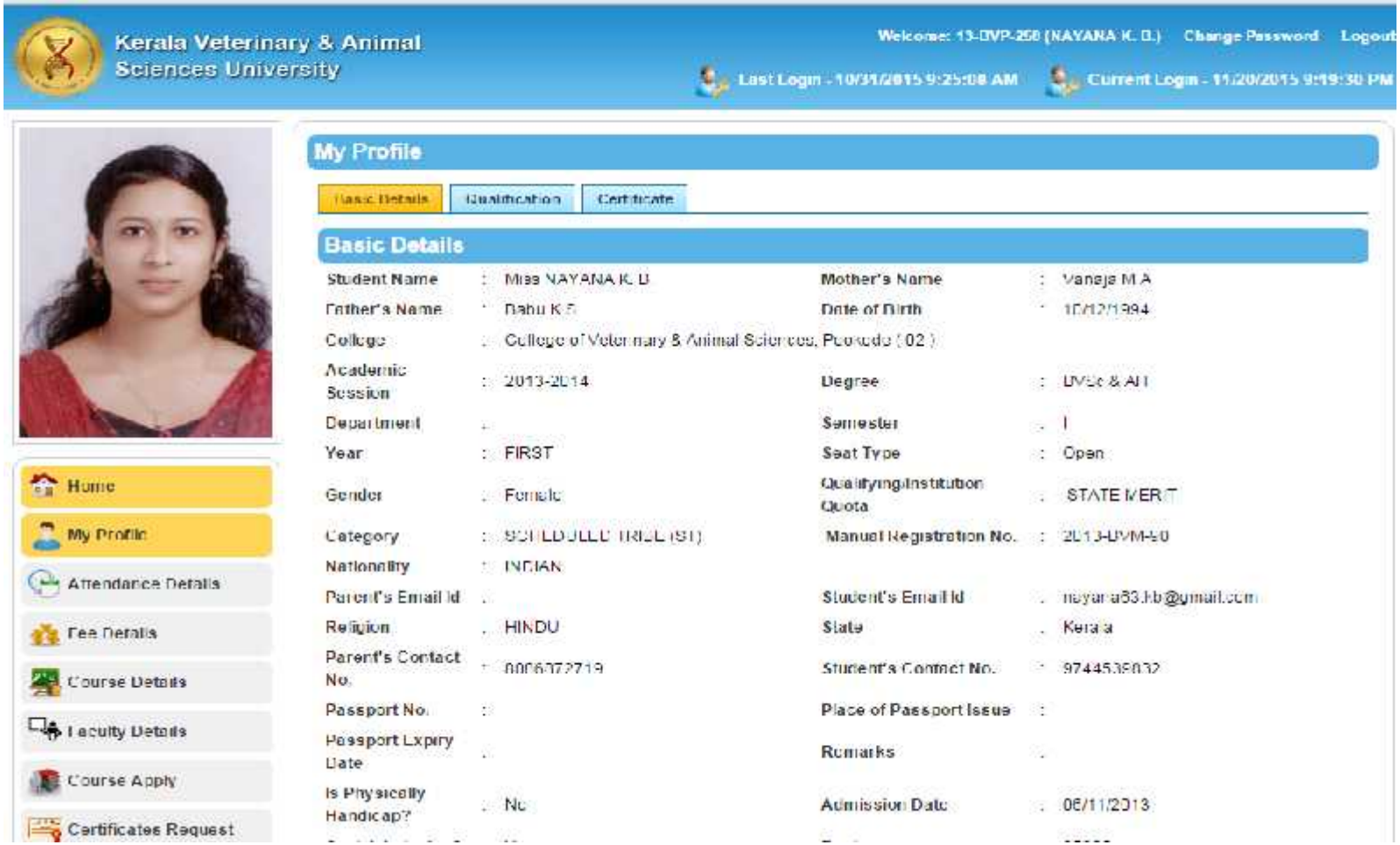
Poultry Science

- CASM Thiruvazhamkunnu
- CASM Pookode

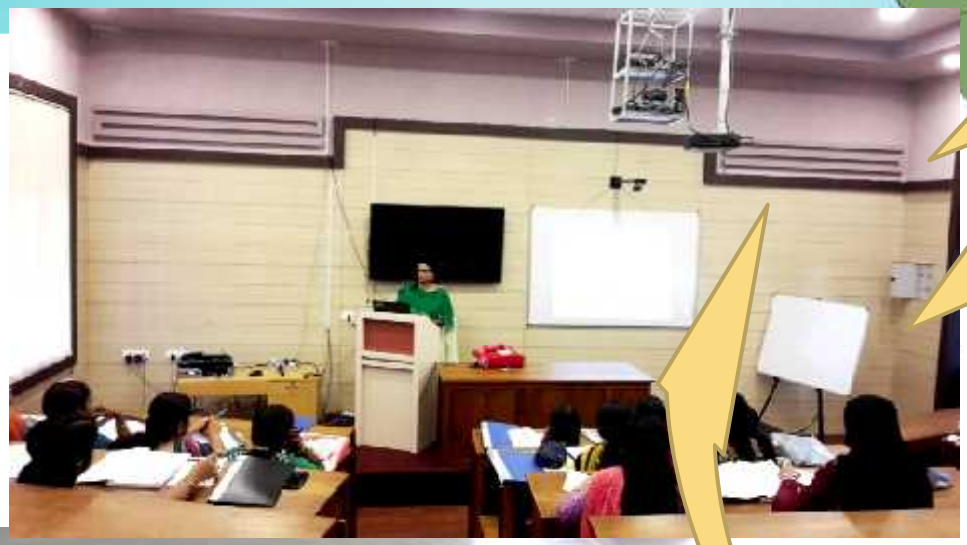
Technological Advances - Administration

Entire academic and administrative activities of University are digitalised by **Integrated University Management System** with a vision to make University paperless

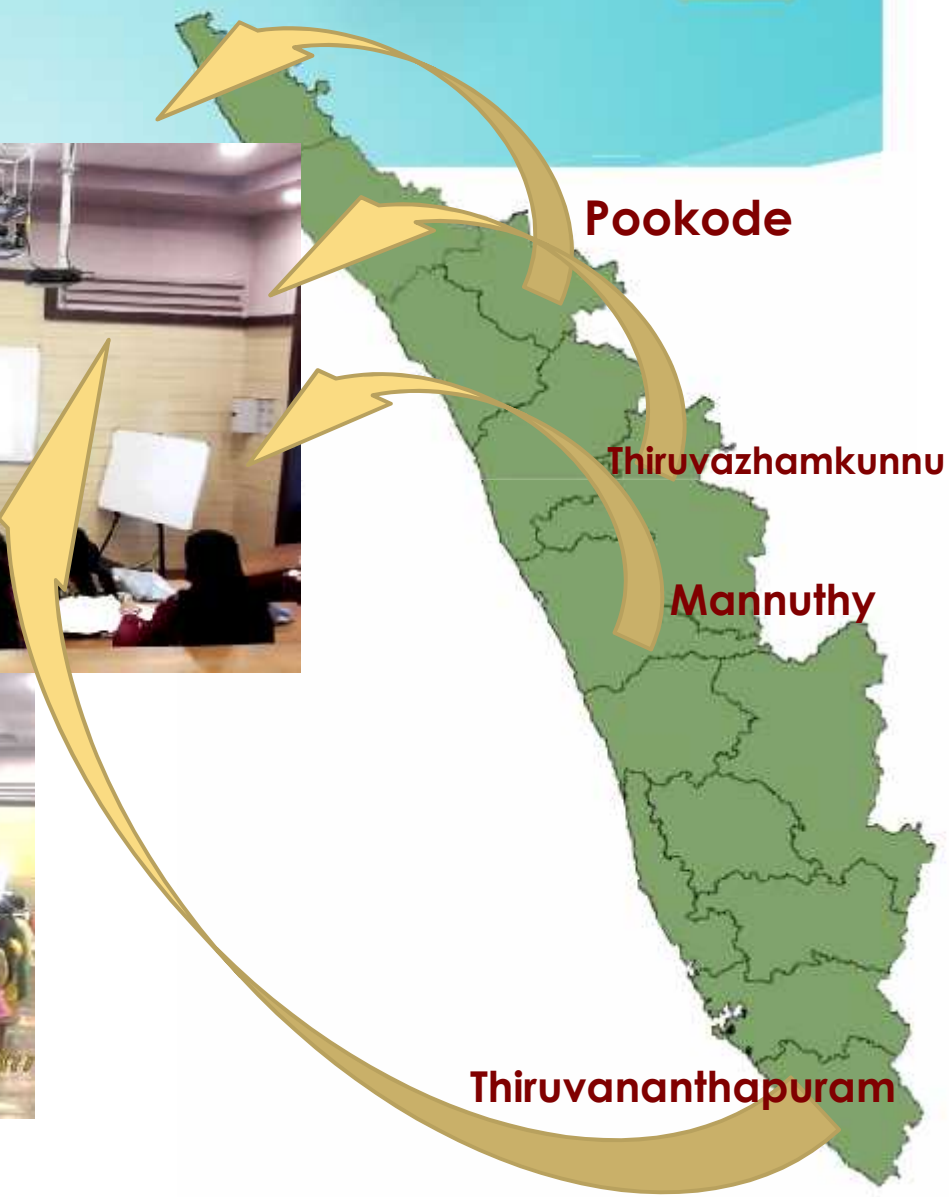
IUMS



Video Conferencing







Library


CeRA
3679
Journals
Academic
Elsevier-
Science
Direct
Bio-One
Ovid
Springer
Taylor
&Francis
Indian
Journals.com
CSIRO
Oxford
University
Press
Nature
Publishing

Academic Integrity: Plagiarism Check

iThenticate®
Professional Plagiarism Prevention

Percentage Similarity Index- Plagiarism Check

- **68 PG theses - 2.91%**
- **13 Ph.D theses - 3.15%**

Technological Advances – Education
Technology enabled distant learning programmes (16 courses)

- **PG Diploma in**
  - ❖Livestock –Agri Entrepreneurship and Food Safety & Food Security Management
  - ❖Ethno pharmacology
  - ❖One Health
  - ❖Informatics and Management
  - ❖Toxicologic Pathology
  - ❖Food safety and Quality Assurance
  - ❖Therapeutic Management of Pet Animal and Birds
  - ❖Poultry Entrepreneurship
  - ❖Dairy Entrepreneurship

Courses contd....

PG Certificate course in

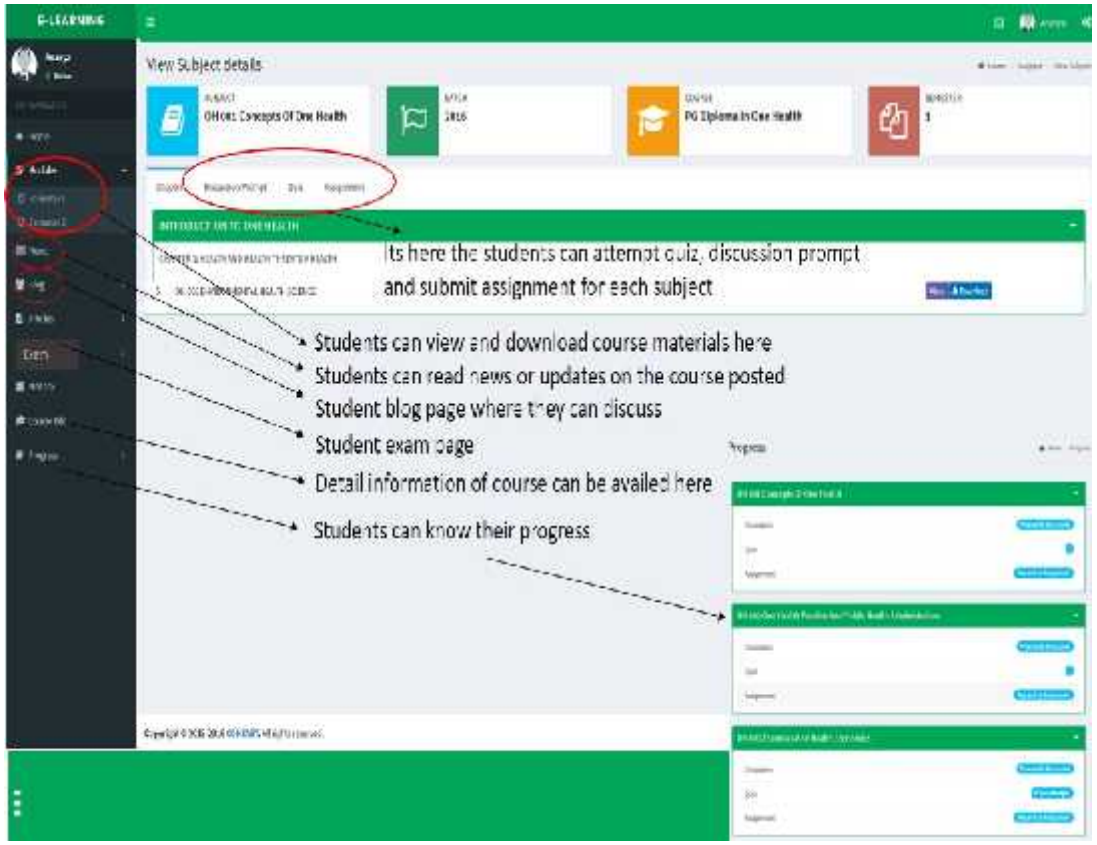
- Veterinary Homoeopathy
- Community based Disaster Management
- Farm Journalism
- One Health Surveillance

Diploma in

- Integrated Farming System
- Dairy Entrepreneurship
- Poultry Entrepreneurship

PG diploma in One Health

Established 26th Feb 2014 for promoting and practicing One Health approach through inter-sectoral collaboration for facing current health challenges at Man-Animal-Environment interface.



Technological Advances - Extension

The **e vet connect** catering disease information and service to farmers have gained social appreciation

e-vet connect





Ksheeraprabha- Software for formulating low cost Cattle ration

Thank You





Prof. Pramod B. Gai

Vice Chancellor

Karnatak University,

Dharwad

National Convention on Digital Initiatives for Higher Education on 8th, 9th and 10th July, 2017 at Vigyan Bhavan, New Delhi

About Karnatak University, Dharwad

- Karnatak University, the second oldest in the State is a combination of vibrant scientific, Social, Linguistic and Cultural achievements, that have shaped up in the form of Bhatnagar Awardee, Common Wealth Fellows, International Visitors, Fulbright Scholars, Poets and Musicians of Hindustani tradition.
- This has resulted in UGC recognition of 'University with Potential for Excellence' and NAAC accreditation with 'A' grade 3.15 CGPA
- Recently, as per assessment made by KSURF, under the Established Universities, Karnatak University is proud to state that it stands second among the State funded universities with a 3 Stars Rating

Digital Initiatives

Karnatak University, Dharwad so far has taken about 18 digital initiatives

This has made administration transparent, student friendly and non coercive

This includes;

- Less Paper Office (FMS/LMS)
- Question Bank
- Digital Evaluation
- Student feedback
- Online affiliation
- E-content

- MOU with IIT, Mumbai for spoken tutorials
- Digitization of Library
- Project Monitoring system
- On line Counseling
- Court case management
- Proceeding Management System
- Online web based Video conference
- National Academic Depository (NAD)
- Cash Less University
- E-Governance
- Examination Management System
- Attendance Monitoring System
- E-Attendance

Innovative methods for enhancing teaching-learning process

University has taken three-fold steps

- Technology friendly learning
- Interactive open house learning
- Increased accessibility of “Teachers for Students” through different modes of communication

Apart from that we have

- 100 Scholarships (Science Education)
- Science Centre to impart knowledge of science to the general public

This has given extended opportunity for students and teachers mobilization for meaningful learning

Innovations in improving the administration of institutions

- University believes in the role of administrators as ‘facilitators’
- De-bureaucratization and cutting on red-tapism has facilitated ‘smooth administration’
- Increased accessibility to officers of the University in administration has widened the scope for participative administration and decision making
- E-governance has given transparent and accountable administration
- UGC-HRDC offers training for Non-teaching cadres

Measures for promoting research

- Best Paper Publication

  (University selects Best Papers every year in Science and Social Science faculty)
- MoU with International Institutions

  (IPL Leiria, Charite University of Berlin)
- A Student Journal
- Post Doctoral Fellowships
- Science Centre to impart knowledge of science to the general public
- University is promoting high standards of ethics and morality in research
- This is coupled with improvements in infrastructure and modernisation of laboratories and equipments

MoU with International Institutions







Best Research Publications







- University Science and Instrumentation Centre (USIC) has enhanced the use of state of art technology in research
- University Workshop helps to facilitate repairs etc for the laboratories
- University Student Research Fellowship
- Scifinder (Search engine)
- Statistical Package for Social Sciences Software (SPSS)
- Planning, Monitoring and Evaluation Board (PMEB) monitors funding and the outcomes of research
- Programmes through UGC-Human Resource Development Centre supports Writing Skills and Peer Guidance in Research, Research Methodology courses to Research Scholars

Major efforts at involving with the community for improving livelihoods

- Being in tune with University's engagement with Community under its slogan **"Campus to Community"**, the University has adopted Mansur Village

  (5 kilometres away from Karnatak University, Dharwad)
- It has diverted its academic research and administrative efforts at improving the livelihood of the communities there
- Reports like Socio-Economic profile of the Mansur Village, Report on the Ground Water Resources in the Village have added to their improvement in inputs to the village

- Conduct of Medical camps, programmes for distribution of seed and sapling, desilting of ponds has been done
- Fee concession given to students hailing form the same village have only improved their quality of life in this adopted village
- Department of Marine biology at Karwar has established **Automatic Weather Station (AWS) in collaboration with ISRO**
- Fishermen Guidance Bureau offers consultancy and extension services to fishermen adds to University engagement with community

Inauguration Function- Campus to Community



A View of Mansur Village



Medical Camp in Mansur Village







Observation of Development activities in the Village by the Vice-Chancellor

Free Health Checkup for the Villagers on the occasion of World Health Day



Distribution of Seed Sapling to villagers and silting of tank in Mansur Village









Imparting Digital Education

- The University has been working towards taking up special measures to initiate education through Massive Open Online Courses (MOOC)
- It is also making an attempt to expand its School of Correspondence Education through Digital means
- University both through the Canara Bank Chair and the Director, ICT has made attempts to impart values of digital economy, use and effects of digital operation of monitory transactions through vernacular (Kannada) language in the jurisdiction of Karnatak University, Dharwad by producing literature for the general public

Swachh Bharat Abhiyaan

- The University, falling in the line with the clarion call given by the Hon'ble Prime Minister of India has along with the National Service Scheme (NSS) has undertaken a huge exercise to keep the University campus clean
- Apart from this, in the adopted Mansur Village through the unit of NSS, Swachh Bharat Abhiyan literacy campaign, health and hygiene progarmmes, medical camps are conducted at in the village
- Education through street plays, group discussions and extension lectures regarding Swachh Bharat is thus contributing to greater consciousness among citizens about cleanliness in their surrounding



Swachh Bharat Abhiyan



Ek Bharat Shresht Bharat

- University, through the NSS, both at the post graduate and under graduate level and NCC at the under graduate level has initiated several National Integration programmes in their regular/special camps
- The University, through its Foundation Lecture series (total 10) organises lectures commemorating contributions of Gandhi, Nehru, Sardar Vallabhbhai Patel, Maulana Abul Kalam Azad etc to kindle the spirit of Nationalism among the younger generation of students
- University departments have organised through UGC-HRDC inter-religious/interfaith group discussions and has contributed National Integration

NSS Programmes North-Eastern Region
Home Stay Programme









Youth Festival Programmes









- By inviting students from North Eastern part of India for home stay in Karnatak University region, the University has collaborated with ABVP in bringing about National Integration in the real sense
- To showcase the cultural vibrancy, the University organsies inter collegiate, inter zonal programmes bringing together students of various regions and nationalities together
- We also have Peethas like Basava Peetha, Dr. B. R. Ambedkar Studies, Dr. Babu Jagjivan Ram Studies, Veman Peetha, Kanaka Peetha etc that presents the diversity of India and its world view through academic studies conducted under these Peethas

This has contributed to a sense of renewed national spirit among the youth



NSS Programmes



Unnat Bharat Abhiyaan

- Keeping with the spirit of Unnat Bharat Abhiyan of MHRD, the University is working towards programmes to support uplift of rural India
- In this regard, the University has undertaken programmes like transfer of technology, discussions about low cost technology, simple agriculture and organic farming in the form of demonstrations and lectures on home medicine programmes
- The University has entered into MoU with BPPI to popularize Pradhan Mantri Jan Aushadi Yojna
- Science departments like Botany, Zoology, Chemistry are working towards these, while Social Science departments aim at lectures to fight the dogma, social pathologies and social evils to fight backwardness in village societies

MoU with BPPI



MoU with ESSCI



- Our department of Hindi recently organised an International Conference on ‘Farmer’s Suicide’
- While many Professors from Economics, Sociology and Political Science have attended and presented papers on causes and consequences of Farmer’s Suicide in the seminars and workshops held in other universities
- University has donated Computers to Mansur Village (adopted village) to make them computer literates
- Department of Folklore of our University holds National level Conference to reiterate our rich cultural heritage and diversity annually



Workshop on Prevention of Suicide



Folklore Sammelana









Action taken on reducing the legal cases

- The University apart from having its own Legal Cell has a grievance redressal cell and special cells to fight harassment of women faculty, students and employees with experts from Legal background and senior lady professors
- There is also a Student Counselling Centre in the University Employment Information and Guidance Bureau (UEIGB)
- University College of Law conducts regularly legal awareness and legal literacy programmes in rural areas and Jawali Moot Court Competitions
- Students are also provided with legal counselling by educating them in legal matters through the University College of Law
- However, in case where the issues are pending with the court, legal counsel representing University will do the needful

Plan of action for promoting the quality of teaching

- The University, keeping in pace with the global competition and the challenges has carved out four fold approach to deal with promoting quality of teaching.

This include;

a) Faculty Development programmes,
b) Workshops on Reading and Writing Skills
c) Open House Debates across faculty to debate on recent developments
d) Invited and special lecture series in each department to enhance the quality of teaching

- This is in addition to UGC-Human Resource Development Centre Programmes of Orientation and Refresher Courses
- Introduction and usage of ICT workshops have contributed to improvement in quality of teaching
- Communication and Language Skills are run as short term programmes at UGC-Human Resource Development Centre adds to these efforts

Planning for future:

3 Year Action Plan

- Through MoUs, the University proposes to increase mobility among teachers and students
- Through the state of Art technology, University proposes to maximise skills in teaching-learning
- University through Community engagement acts as a catalyst to link government programmes to target groups

Through these steps, the University hopes to contribute to the betterment of life of stake holders in its jurisdiction

7year strategic plan

The University in this regard has four-fold strategies which are for midterm assessment.

This includes;

- To work towards greater networking of institutions within the jurisdiction of the University, across the nation and at the international level based on our potential for excellence and expansion
- To strategise and remodel the syllabus to link the process of learning with community engagement so as to facilitate students to develop empathy for social problems and to work towards expanding the knowledge through entrepreneurship for the betterment of community through low cost and affordable innovations for betterment of the lives of stake holders

- To bring in local expertise through University Innovation and Incubation hub- to liberate scientific knowledge and transform it into technology to develop bio-medical, psychological and socio-economic solutions to the problems in the society
- To transform individual and institutional teaching learning programmes into interactive partnerships whereby the University will be enabled to offer solutions for the problems of local communities, environmental, business, market, health and hygiene matters in the region

15 year vision

- This vision is to transform Karnatak University a UGC recognised University with Potential for Excellence into a “University of Excellence” and a “Model University” in all disciplines with stress on its local specializations like Hindustani Gharana Music and to make it a Centre for Excellence in learning through its genuine contributions to the North Karnataka Regional Identity

Suggestions on the New Education Policy

- New Education Policy is a bold step and categorising the University based on the NAAC assessment is a step in the right direction
- However, except for the fact that it proposes NET and SET qualifications to those who wish to pursue Ph.D (students and faculty)
- In this above para, amendment is required with regard to faculty, making provisions to exempt them from NET/SET condition to register for Ph.D directly or through written exam
- Upward mobility for Category-III Universities is a welcome step while the concern should be for vertical assessment through NAAC and not making it a cosmetic re-evaluation

- The content related to deemed Universities and MoUs are quite impressive. However depending on the local conditions, additional provisions such as MoUs within the States or between the Universities in the Country and across institutions are essentially to be made pragmatic
- However, approval for all this through the UGC may be cumbersome and an alternative mechanism to decentralise UGC/HERA system may be thought of so as to facilitate greater transparency and faster decision making in this regard

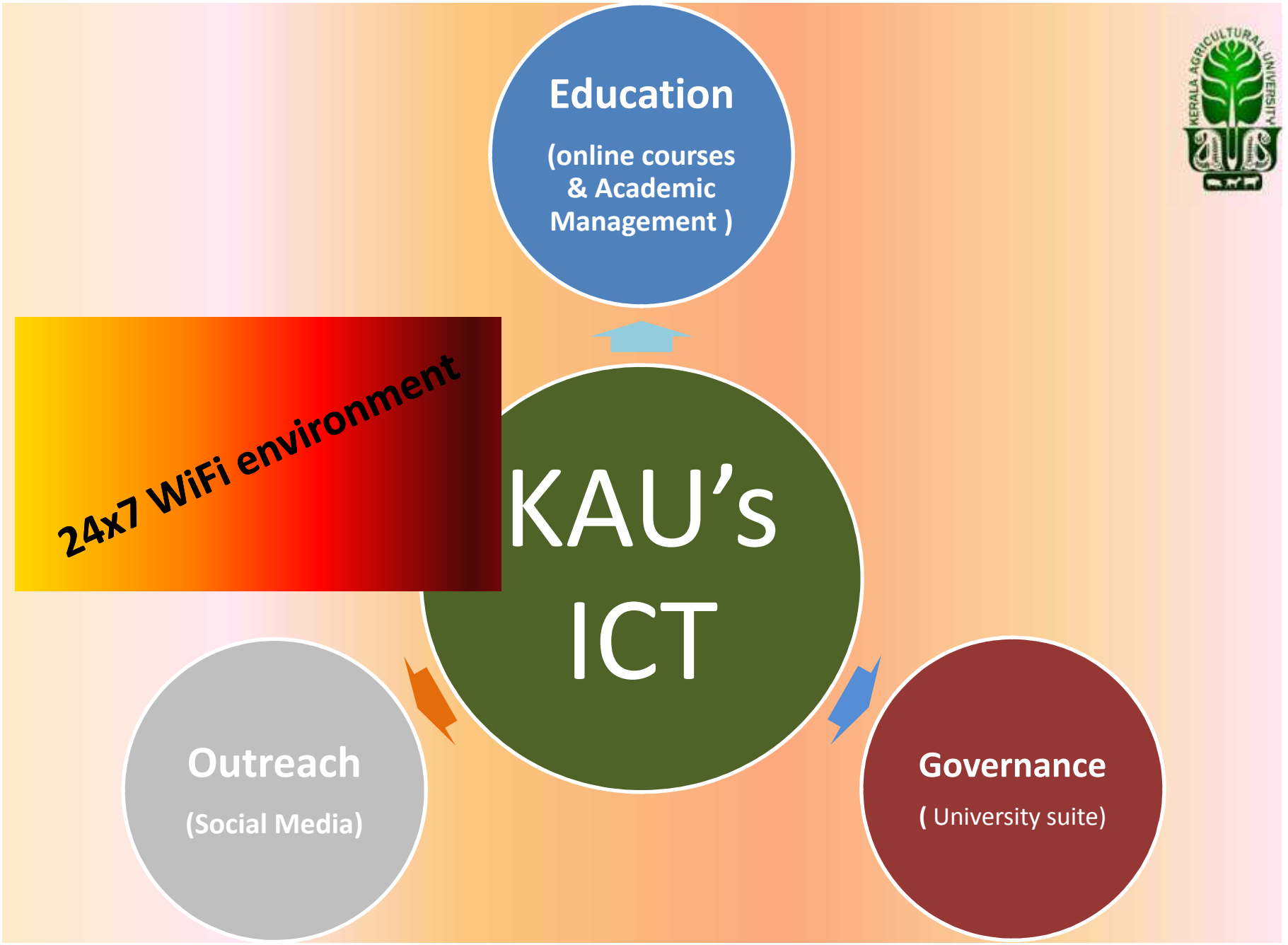

thank
you

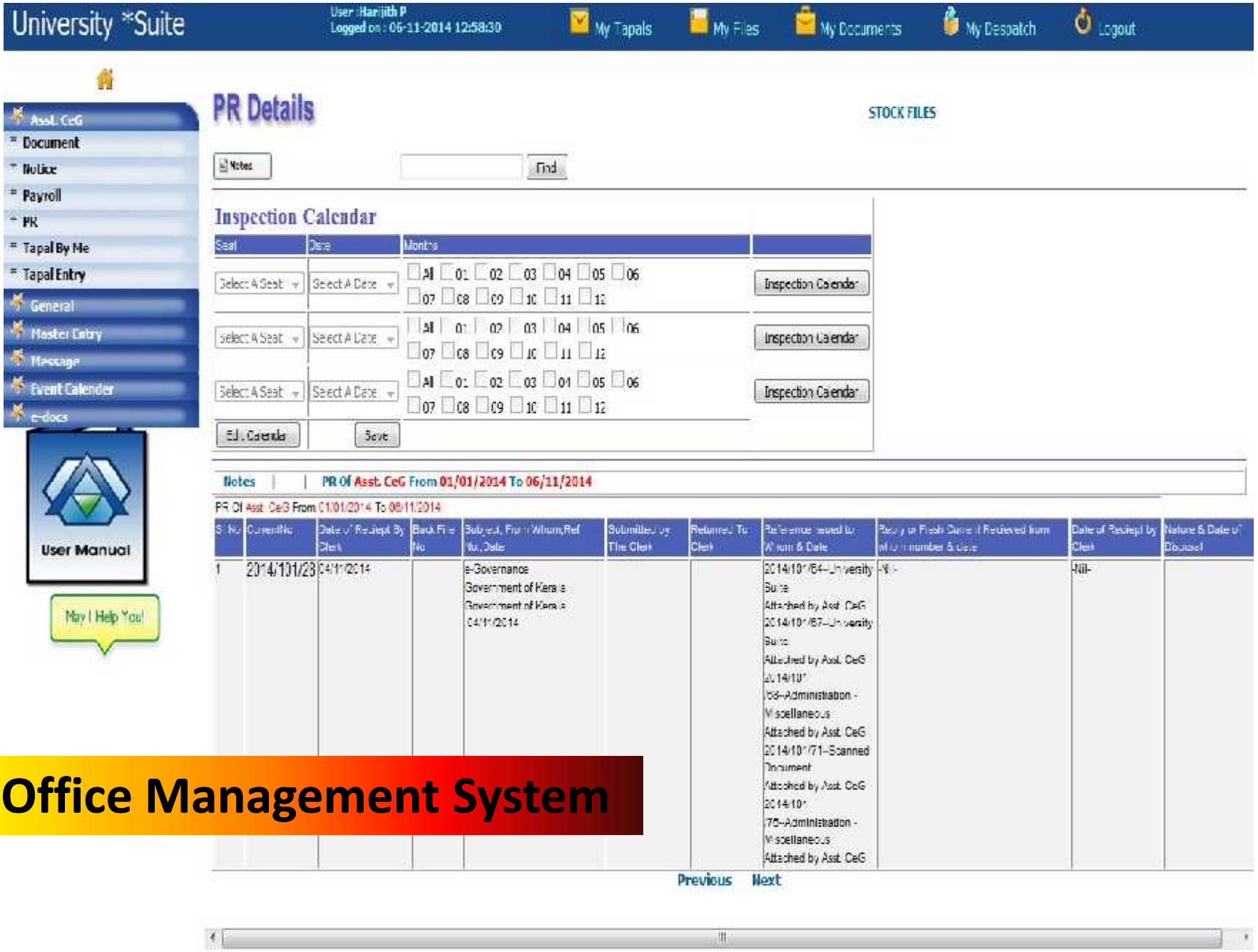
Digital initiatives for higher education

KAU Experience

Kerala Agricultural University
Thrissur, Kerala
www.kau.in www.celkau.in

"Information gateway to convert know-how to do-how"


Education
(online courses & Academic Management)
24x7 WiFi environment
KAU's ICT
Outreach
(Social Media)
Governance
(University suite)



Office Management System



Master

- Acad.Activities
- Programme Levels
- Acad. Dates List
- KAU Seats Admission Mode
- Faculty
- Institutions
- Regulations
- Programmes
- Disciplines
- Experential Discipline
- Instn-Disciplines
- Programme Courses
- Institution Programme
- Course Titles For Catelog
- Catelog
- Syllabus Template
- Programme Syllabus
- Syllabus for AcadYear

Admission

- Students
- Teaching Faculties
- Advisors

Registration

- Course Teachers
- Mark Attendance
- Fee Paid
- Mark Student Eligible
- Course Registration
- Add Marks
- CRGC
- Mark Sheets - Internal
- Mark Sheets - Tabulated
- Grade Report
- Grace Marks
- Credit Load- Semester
- Programme Credits
- Moderation Marks

Academic Management System

SUGGESTIONS

ഇ-കൃഷി പാഠശാല
ഇ-कृषि पाठशाळा

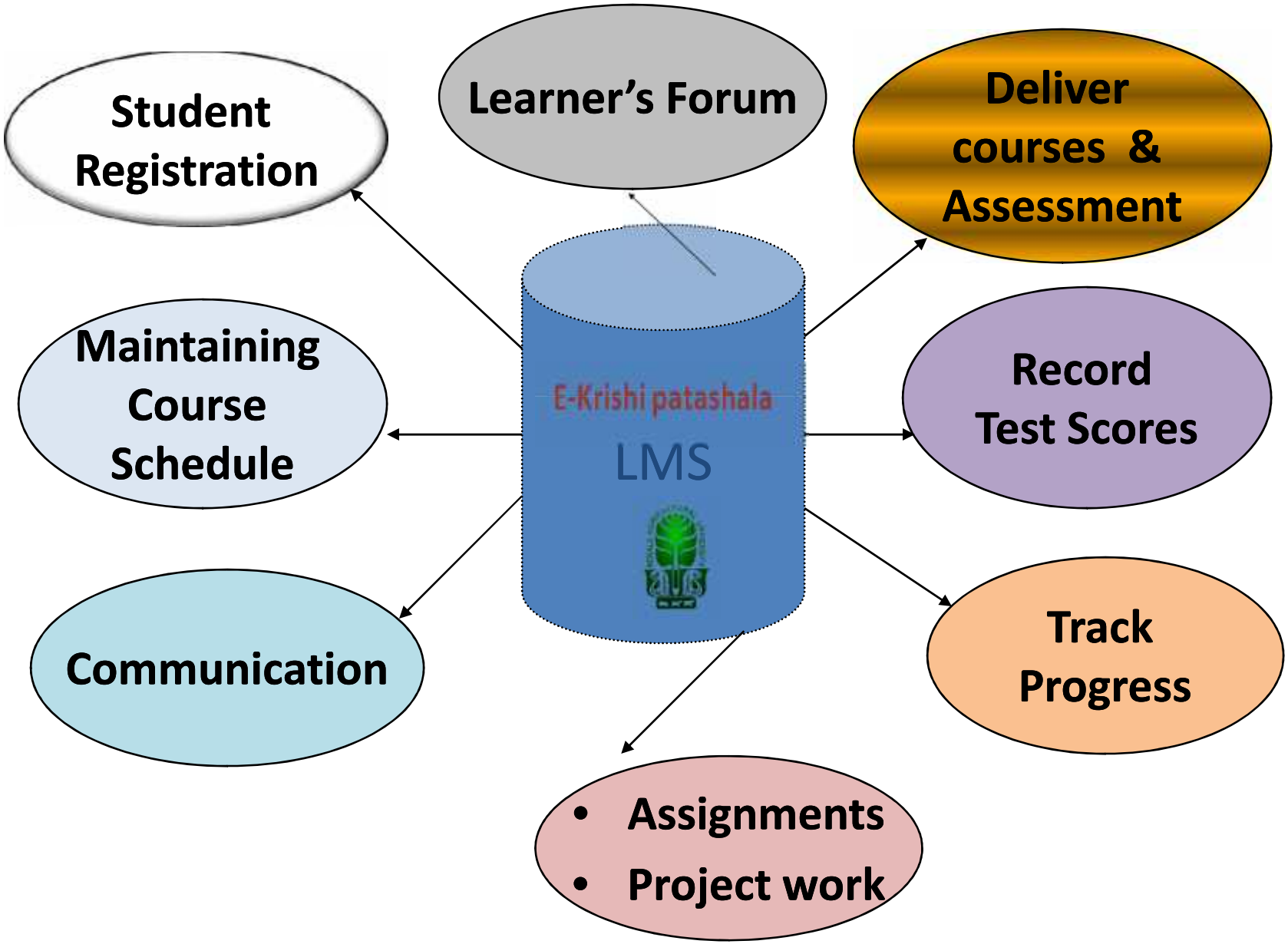
ONLINE COURSE

e-KRISHI PATASHALA

(Online Agri. courses for all)

Pioneering platform for e- learning in agriculture

Features of e-Krishi Patashala




KAU Agri - Infotech Portal
Centre for E-Learning
Kerala Agricultural University
Informal Home
User Name
Password
Login
Forgot my password

Desktop, Tablet & Mobile Friendly



ഇ-കൃഷി പാഠശാല
ഇ-कृषि पाठशाला
ONLINE COURSE

Instant Evaluation & Score card



ഇ-കൃഷി പാഠശാല
ഇ-കൃഷി പാഠശാല
ONLINE COURSE

Interaction Forum



KAU Agri-infotech Portal (www.celkau.in) to serve as the Agri. Knowledge Bank for students and learners



AGRI Tech Portal- Library to Online Participants



Home Page



Crops



Animal Husbandry



Fisheries



Farm Machinery



Agri Meteorology



Input/service availability



Agri Almanac



Success Stories

AGRI Tech Portal- Library to Online Participants



e-Fertulator



e-Crop Doctor



Crop Health Diagnoser



Sub Portals



Newsletter



Agriculture in Media


www.celkau.in/Crops/krishi.aspx
സെന്റർ ഫോർ ഇ – ലേണിംഗ്
കേരള കാർഷിക സർവ്വകലാശാല
കൃഷി
Information Gateway on Agriculture to Convert "Know How To Do How
English
ഈ വെബ് ജാലകം വ്യക്തമായി കാണുന്നതിനായി ലിപികൾ ഡൌൺലോഡ് ചെയ്യാൻ.....
FOR BETTER READING PLEASE DOWNLOAD THE MALAYALAM FONTS FROM HERE...
കൃഷി
ധാന്യങ്ങൾ
കിഴങ്ങുവർഗ്ഗ വിളകൾ
തോട്ട വിളകൾ
സുഗന്ധവ്യഞ്ജനങ്ങൾ
പച്ചക്കറികൾ
ഫലവർഗ്ഗ വിളകൾ
അലങ്കാര ചെടികൾ
മരുന്ന് ചെടികൾ
EN
8:54 AM
3/3/2014


KAU Agri - Infotech Portal
Centre for E-Learning
Kerala Agricultural University
മാസത്തിലെ കൃഷിപ്പണികൾ

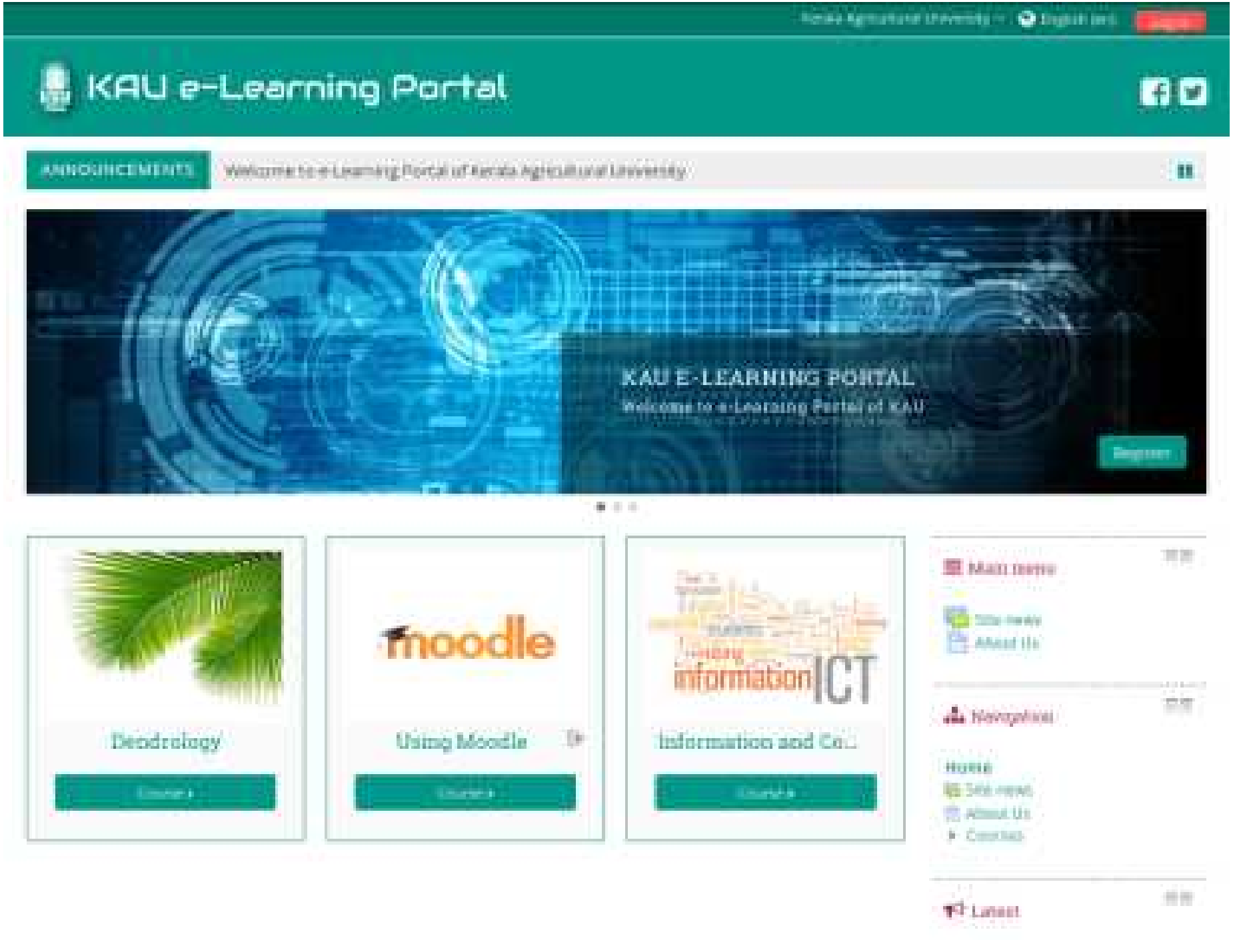

KAU Agri - Infotech Portal
Centre for E-Learning
Kerala Agricultural University
ജനുവരി
ഫെബ്രുവരി
മാർച്ച്
ഏപ്രിൽ
മെയ്
ജൂൺ
ജൂലൈ
ഓഗസ്റ്റ്
സെപ്റ്റംബർ
ഒക്ടോബർ
നവംബർ
ഡിസംബർ
വിളകൾ

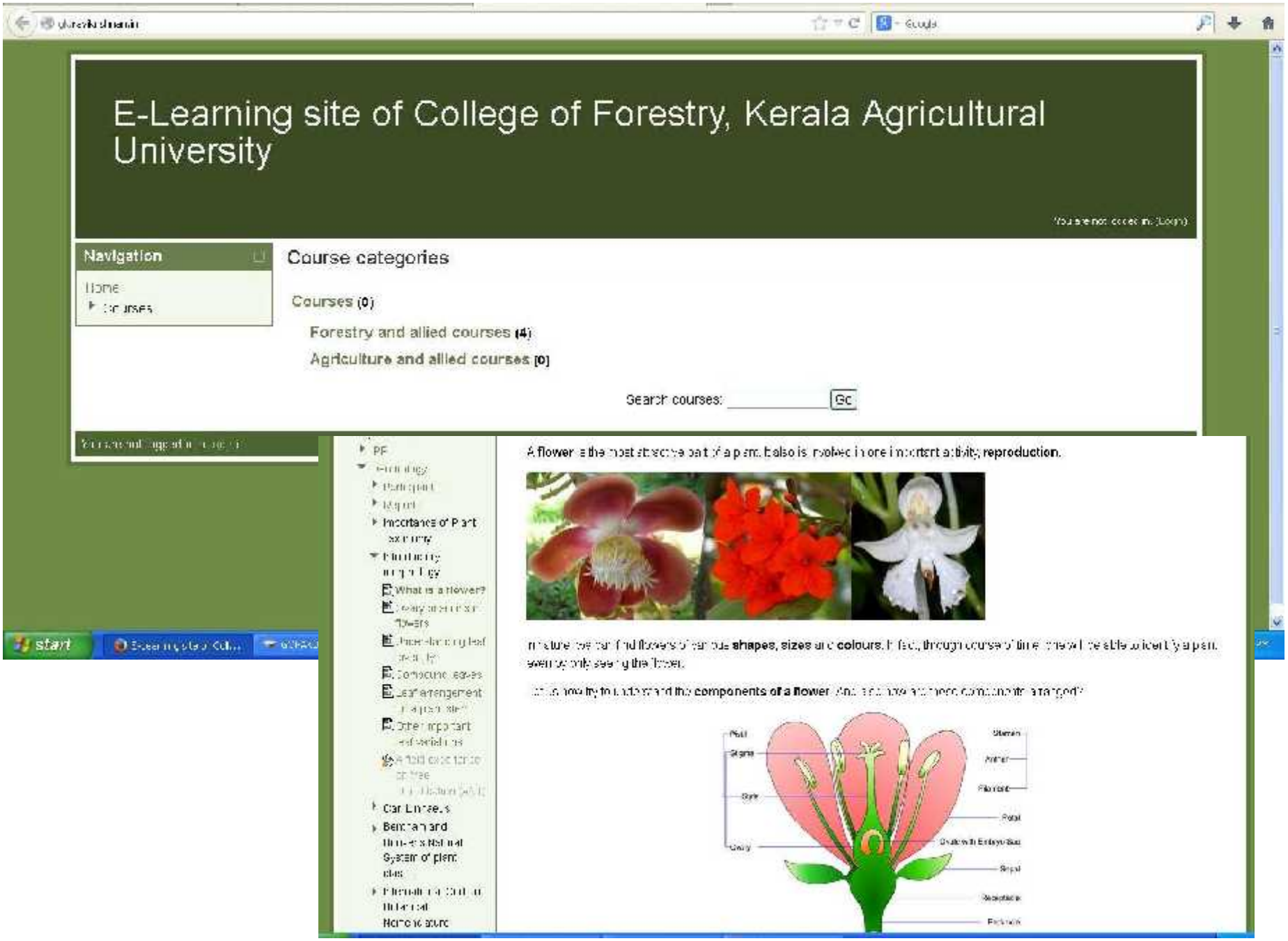

KAU Agri - Infotech Portal
Centre for E-Learning
Kerala Agricultural University
കാർഷികജാലകം
വിളസംരംക്ഷണം


KAU Agri - Infotech Portal
Centre for E-Learning
Kerala Agricultural University

Participants'	Profile……
Geographic location	Kerala, Other Indian States, Middle East and USA
Age range	17-65 years
Education	Senior secondary to Post Graduation.
Sectors	Farmers, Students, Extensionists, Public servants, Corporates, Entrepreneurs

MOOC


KAU e-Learning Portal
ANNOUNCEMENTS
Welcome to e-Learning Portal of Kerala Agricultural University
KAU E-LEARNING PORTAL
Welcome to e-Learning Portal of KAU
Register
Dendrology
Course
moodle
Using Moodle
Course
information ICT
Information and Co...
Course
Main menu
Site news
About Us
Navigation
Home
Site news
About Us
Courses
Latest


E-Learning site of College of Forestry, Kerala Agricultural University
Navigation
Home
Courses
Course categories
Courses (0)
Forestry and allied courses (4)
Agriculture and allied courses (0)
Search courses:
Go
PF
Importance of Plant
What is a flower?
Carl Linnaeus
Bentham and
Nomenclature
A flower is the most attractive part of a plant. It also is involved in one important activity, reproduction.
shapes, sizes and colours.
components of a flower.
Stamen
Anther
Filament
Petal
Sepal
start

ONLINE THESES PORTAL

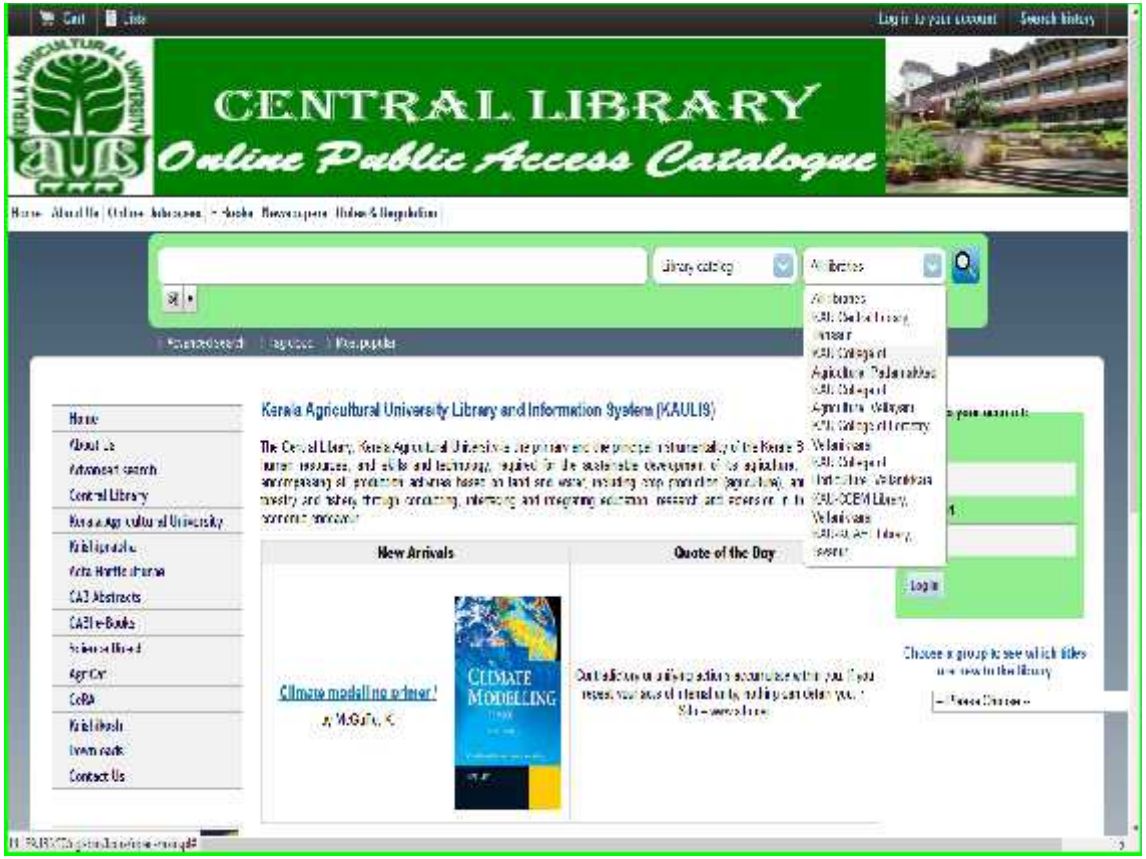
KAU Theses Repository:- KAU has initiated the development of Theses Repository consisting of about 4000 theses submitted to the University. Details of all these theses upto abstract level have already uploaded to the website and accessible to all. Full-text digitization is also started and completed the uploading of





Digital Union Catalogue of Books and Journals:-

A digital union catalogue of all books and journals available in all colleges, stations, KVKs, other offices, etc. Will be prepared for fostering and ensuring inter library loan and document delivery within the university as well as outside the university.



KAU Institutional Repository:- Initiated the development of KAU Institutional Repository containing all documents like Course materials, question papers, package of practices, articles and books of university teachers and staff, photographs, audio-video documents, university orders, reports, budget documents, etc. having copy right to KAU.

Kerala Agricultural Digital Library:- This intends to include documents related to crops and cropping systems and practices particular to Kerala. Books, journal articles, news clippings, etc. on the area will be collected and stored in digital form. Traditional knowledge and literature particular to Kerala and agriculture is also developed.





UN Summit Digital empowerment Foundation Awards
at New Delhi – December 2013
(International jury and coordinators)

World Education Awards 2014









Manthan South West India Awards 2014



KAU has also won the

Kerala State e-Governance Award 2011-13

THANK YOU

DIGITAL INITIATIVES FOR HIGHER EDUCATION IN KERALA AGRICULTURAL UNIVERSITY (www.kau.in)

The digital initiatives for higher education in Kerala Agricultural University were initiated in 2012 and the following programmes are being implemented.

1. **Online certificate courses in Agriculture**
2. **KAU Agri Infotech portal**
3. **MOOC**
4. **Digital Initiatives related to Library in KAU**

1. ONLINE CERTIFICATE COURSES IN AGRICULTURE: Online Certificate courses are being offered. Diploma and PG diploma courses are on the anvil.

2. KAU AGRI INFOTECH PORTAL (www.celkau.in)
Agri Infotech portal is a knowledge bank for agriculture, animal husbandry and fisheries in English and Malayalam. It contains different softwares and decision support systems:

KAU Fertulator, KAU E-Crop Doctor and Crop Protection Advisor, Market Intelligence Service,Agri Inputs and Services Data base, Digital Library for farm implements and machinery,Weather Information and weather-based farm operations, Agri Almanac, CEL Discussion Forum

Other services in the Portal: Farm Knowledge Bank, Repository of agricultural technology problems and FAQs , *E-Library, Farmers' Corner,* Links to thousands of *agri related and general websites* all over the world, links to *popular media: print, radio* and *TV* channels, *Photo and Video Gallery, Announcements, Success Stories, Experience sharing*

3. MOOCs

- KAU has initiated Massive Open Online Courses with Moodle LMS (http://moodle.celkau.in/).
- The university is also soon to utlise the SWAYAM platform (Study Webs of Active Learning for Young Aspiring Minds) The content preparation on selected subjects in agriculture targeting to the farming community is going on.

4. DIGITAL INITIATIVES RELATED TO LIBRARY IN KAU:

1. **KAU Theses Repository**:- about 4000 theses submitted to the University.

2. **KAU Institutional Repository**:- Initiated to store course materials, question papers, package of practices, articles and books of university teachers and staff, photographs, audio-video documents, university orders, reports, budget documents, etc. having copy right to KAU.

3. **Kerala Agricultural Digital Library**:- This intends to include documents related to crops and cropping systems and practices particular to Kerala.

4. **Digital Union Catalogue of Books and Journals**:- A digital union catalogue of all books and journals available in all colleges, stations, KVKs, other offices, etc.

Technology Assisted Examination System



Prof. Dr. P.K. Sudhir

Controller of Examinations

Kerala University of Health Sciences

Brief History

Kerala University of Health Science Act 2010 was enacted in the State assembly.

189 health science colleges under existing five universities were transferred to KUHS from 2010-11 academic year onwards.

Brief History

Currently KUHS has 282 affiliated health science colleges under seven faculty

- **faculty of allied health sciences,**
- **faculty of ayurveda & siddha ,**
- **faculty of dental science,**
- **faculty of homoeopathy,**
- **faculty of medicine,**
- **faculty of nursing**
- **faculty of pharmacy.**

Purpose

Ensuring proper and systematic instruction, teaching, training and research exclusively in all health science educational streams in the state of Kerala

- **A Reliable and Valid Examination System is the only methodology which indicates whether the Educational Objectives are achieved**

A successful evaluation generates outcomes that are

- **Valid**
- **reliable**
- **indicate directions and action for improvement.**

Currently KUHS has offering ‘129’ courses in 282 Affiliated Colleges

An average enrollment of students of all these courses is > 20,000 per year

KUHS is conducting an average of 20,000 theory & 10,000 practical examinations in a year on a regular & supplementary mode

KUHS Automated Examination System

- **Publication of a tentative theory examination calendar in the beginning of the academic year**
- **Preparation of question paper bank by national level experts and which is scrutinized by state level experts**
- **Choice less question papers**

- **Nodal center for each theory examination and appointment of a nodal officer**
- **Use of 52/32 pages barcoded theory answer books as the case may be**
- **Secure delivery of online transmission of question paper 30 minutes prior to the conduct of the examination**

- **No candidates are permitted in the exam hall after online QP transmissio**
- **Correction/modification/replacement o questions (optional) within 15 minutes from the start of examination.**
- **CCTV surveillance and mobile jammer in the theory examination hall**

- **Digital recording of theory examination proceedings shall be sent to the university along with the answer books**
- **Online entry of practical marks from the examination centers**
- **Online mark entry from the valuation camps**

- **Double valuation for all UG courses & an option for third valuation if the first and second valuation marks vary more than 15% of total marks.**
- **Multiple Valuation for all PG Courses**

- **Digitalized result processing**

  (various parameters required for result processing arrived from various locations are verified and matched against secret keys)

- **Public web portal available for the candidates for viewing the results**

KUHS Examination System In Brief ...

- **Examination Registration is online**
- **Eligibility check is automated**
- **Admit card issue is online**
- **QP transmission is online**
- **QP correction/replacement transmission is online**



- **Theory Attendance registration is online**
- **Practical marks entry is online**
- **Theory valuation marks entry is online**
- **Result processing is online**

.....

- **Result documents preparation is automated**
- **Verification of result is online**
- **Publication of result is online**
- **Identification of answer books for re-totalling or other cases are done online**

Advantages of Automation

- **Examination system - No-loss no-profit basis**
- **Conduct of examinations with in the course period itself**
- **Timely publication of results avoiding course lag**

Achievements

- **University could establish a reputed examination system**
- **Timely conduct of examination and timely publication of results**
- **Awarded 31,635 degrees and diplomas in six convocations.**
- **University could establish a brand value for KUHS degree**

Future Plans

- **Digital / Online theory evaluation**
- **Biometric attendance in Theory / Practical Examination Centres**
- **Online CCTV Surveillance from the University Headquarters**

Thank You



DIGITAL INITIATIVE OF KERALA UNIVERSITY OF HEALTH SCIENCE

TECHNOLOGY ASSISTED EXAMINATION SYSTEM

Kerala University of Health Science (KUHS) was established in the year 2010 by transferring 189 health science colleges from other Universities of the State. Currently KUHS has 282 affiliated health science colleges under seven faculty i.e. faculty of allied health sciences, ayurveda& siddha, dental science, homoeopathy, medicine, nursing and pharmacy.The main purpose of establishing KUHS was to ensure proper and systematic instruction, teaching, training and research exclusively in all health science educational streams in the state of Kerala

At present KUHS is offering '129' courses - '20' UG courses, '91' PG courses, '2' MPhil courses and '16' super specialty courses under the seven faculty.The average enrollment of students in all these courses is more than 20,000 per year [2016-17 admission]. KUHS is conducting about 20,000 Theory examinations and 10,000 Practical examinations in a year, on a regular and supplementary mode, valuing more than 15 Lakhs answer books (Compulsory double valuation system for UG courses and multiple valuation for PG courses).

From the beginning itself, KUHS has followed a technology assisted system of conducting examinations. In fact, KUHS is the first University in the State of Kerala to introduce secure delivery of question papers through online mechanism to the theory examination centers. This has resulted in a huge reduction of logistics and has increased the security.

Besides the above, nearly all aspects of work in the examination wing is conducted using the assistance of technology. All major aspects of conduct of examinations including , Timetable generation, Examination Registration, Eligibility check, Admit card issue, Question Paper transmission, Question Paper correction/replacement transmission, Theory Attendance registration, Practical marks entry, Theory valuation marks entry, Result processing, Result documents preparation, Verification of result, Publication of result, Identification of answer books for re-totaling, mark lists preparation and printing, certificates preparation and printing etc. are done online.

By using the technology assisted methodology,KUHS has achieved a lot as it could establish a reputed examination system. KUHS was also successful in conduct of examinations and publication of results in a timely manner. Besides, KUHS was able to award 23,191 degrees and diplomas in six convocations. The success in all these areas has enabled the University to establish a brand value for KUHS degree. KUHS was able to totally nullify the course lag which existed in the earlier years thereby benefiting the students and public.

As an immediate future plan, KUHS is planning to incorporate Digital / Online theory evaluation, Biometric attendance in Theory / Practical Examination Centres and Online CCTV Surveillance from the University Headquarters.In short **KUHS Examination system which is developed in-house is reliable and valid and there is a scope for improvement**. "SWOT Analysis of KUHS examination system" was published in the National Medical Journal of All India Institute of Medical Science, New Delhi (*http://archive.nmji.in/archives/Volume-27/Issue-1/27-1-ME-II.pdf*)

GRAMODAYA DIGITAL INITIATIVES FOR QUALITY EDUCATION

By: Prof. N. C. Gautam, Vice-Chancellor

Grade "A" accredited by NAAC



'विश्वं ग्रामे प्रतिष्ठितम्'

The village is the universe in miniature.

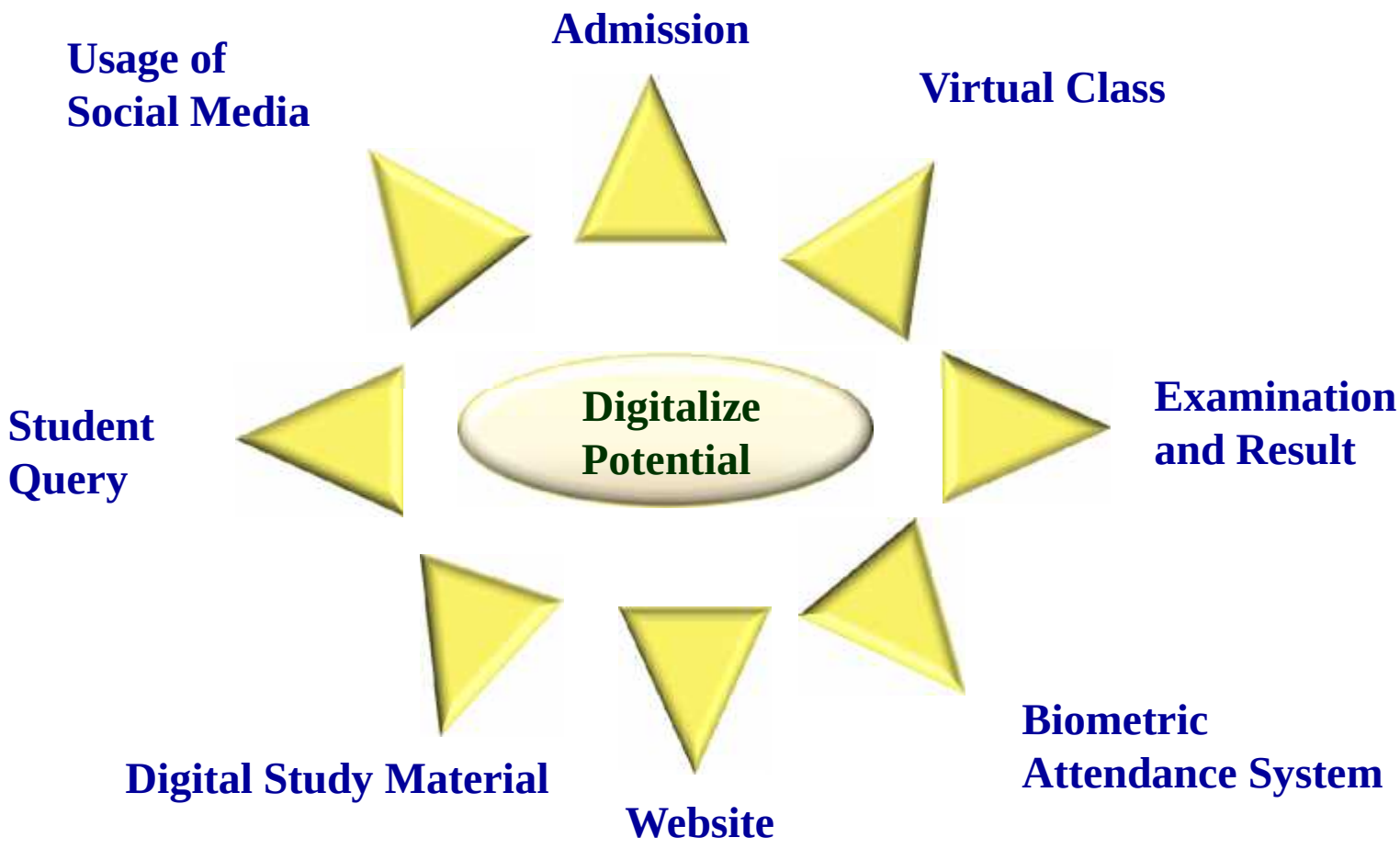
MAHATMA GANDHI CHITRAKOOT GRAMODAYA VISHWAVIDYALAYA, CHITRAKOOT

(First Formal Rural University of Our Country)

DIGITAL INITIATIVES OF GRAMODAYA

- LIBRARY DIGITIZATION
- ONLINE ADDMISSION PROCESS
- DECLARATION OF RESULT IN DIGITAL MODE
- CAMPUS DIGITAL DATA
- THUMB IMPRESSION ATTENDANCE SYSTEM
- MOVEMENT OF FILE THROUGH NETWORKING
- STUDENT ASSIGNMENT AND INTERACTION
- MONITERING SECURITY OF CAMPUS THROUGH CCTV
- AUTO GENERATED ONLINE SYSTEM FOR REDRESSAL OF STUDENTS PROBLEM

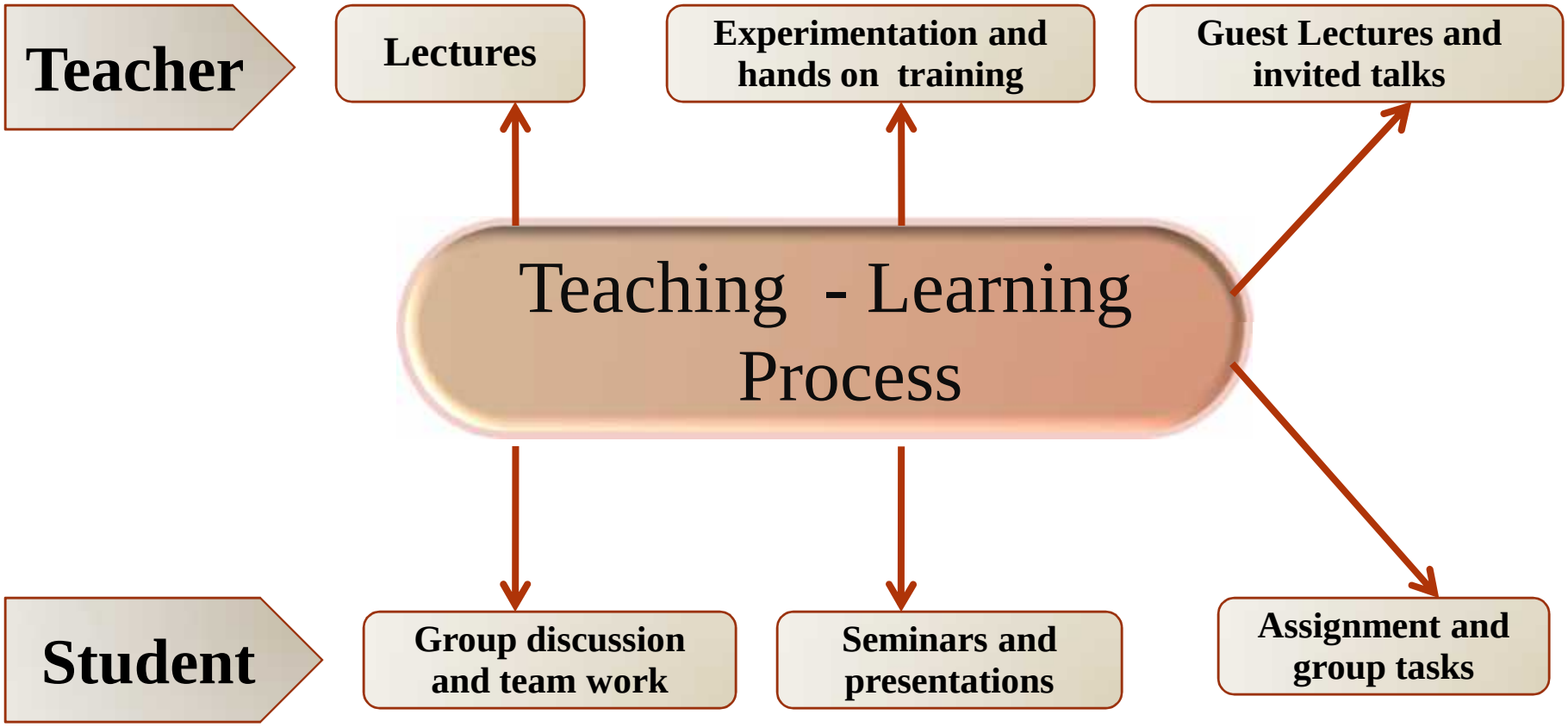
DIGITAL INITIATIVES



INNOVATIVE METHODS FOR ENHANCING THE TEACHING LEARNING METHODS

- Student Enrolment and Profile
- Catering to the Student Diversity
- Teaching and Learning Process
- Teacher Quality
- Evaluation Process and Reforms
- Student Performance and Learning Outcomes

Teaching - Learning Process



TEACHING THROUGH SMART CLASSES





Enhancing Teaching – Learning Process

Lecture Deliberation in e-Learning Centre for 25000 BSW Students of the State



By

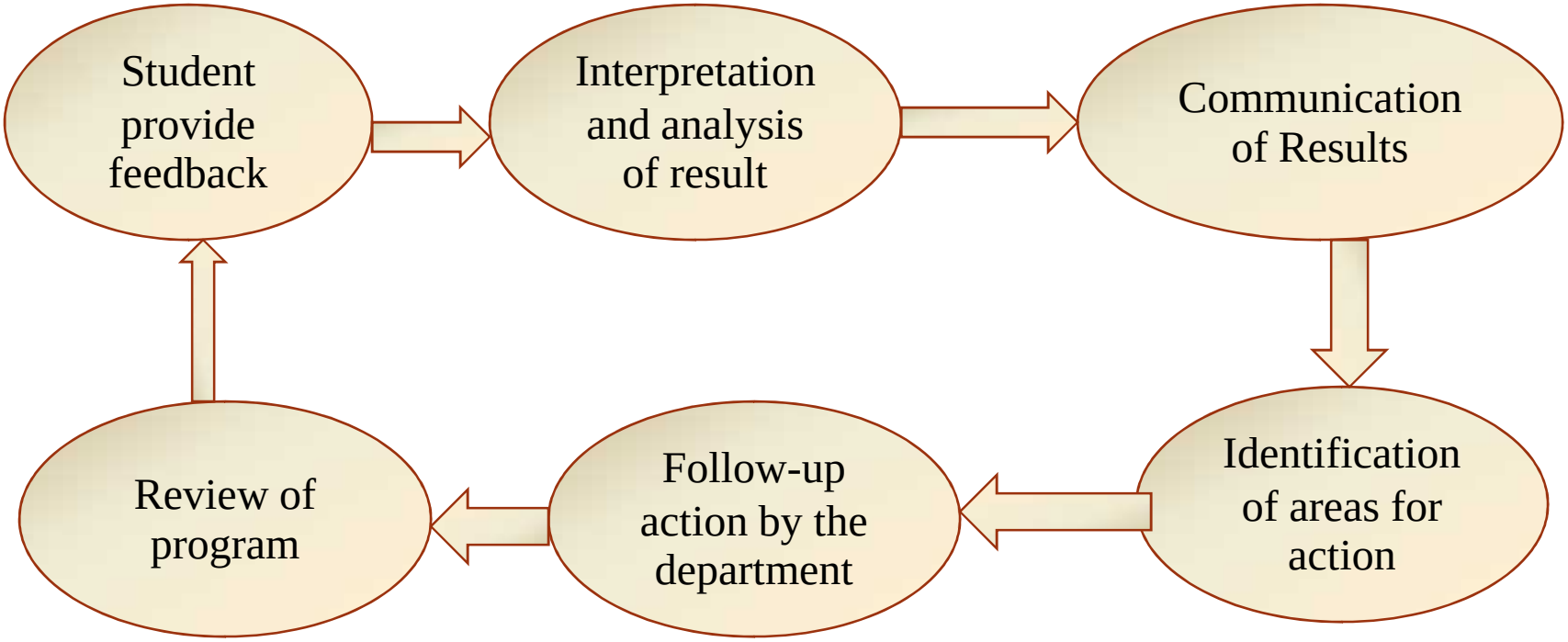
Dr. D.P. Singh,

Chairman,

NAAC

FEEDBACK SYSTEM

A Performa based on NAAC recommendations has been designed to obtain feedback on curriculum. It is distributed among the students during/end of each semester for their ONLINE feedback on curricula. Similar process adopted to get feedback from parents and alumnae.

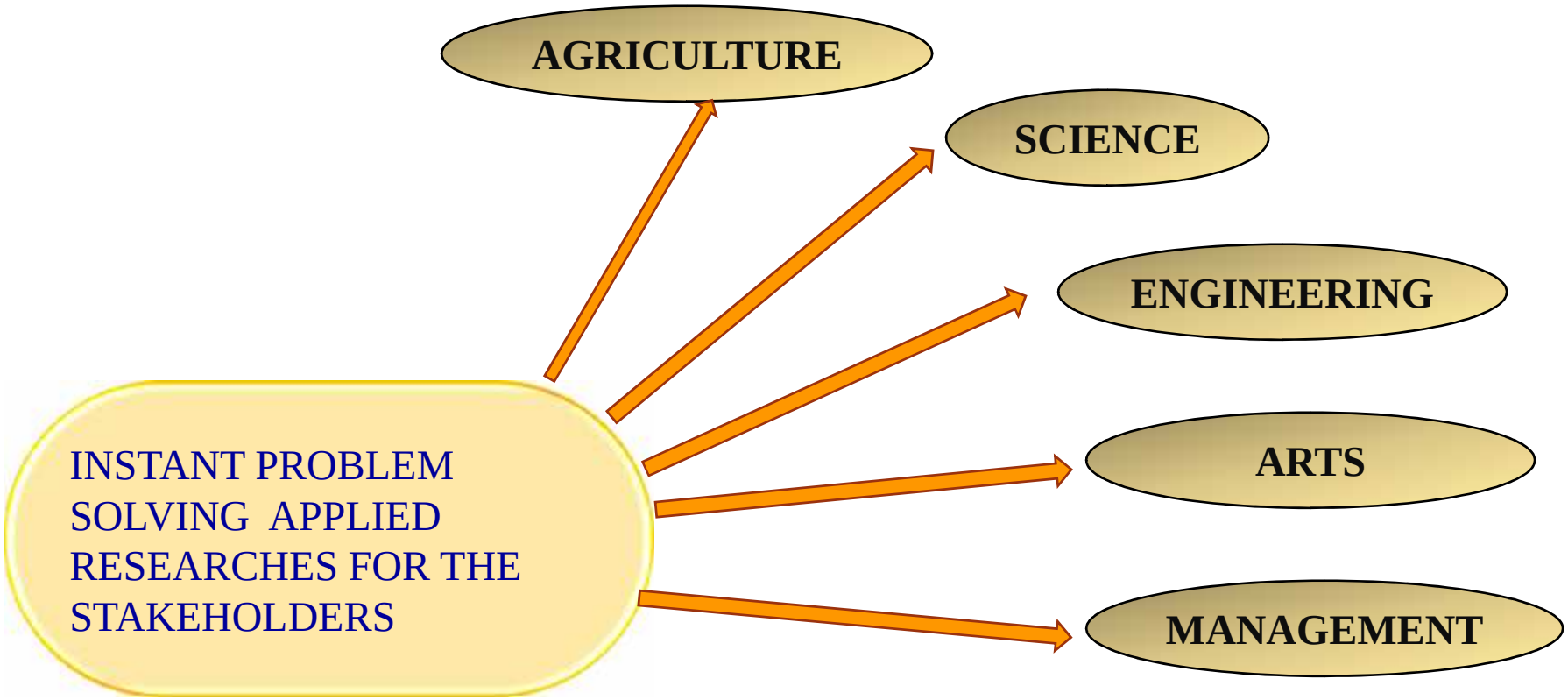


INNOVATIONS IN IMPROVING THE ADMINISTERATION OF INSTITUTIONS



CAMPUS UNDER THE SURVEILLANCE

MEASURES FOR PROMOTING RESEARCH



MAJOR RESEARCH DIMENSIONS

- Local Self Governance
- Human Justice & Development of Weaker Section
- Agriculture and Animal Husbandry for Livelihood.
- Soil Conservation and Water Management.
- Remote Sensing, Resource Inventory, GIS based Planning
- IT for Rural Development.

- Habitat Needs of Energy, Sanitation, Housing.
- Innovative Strategies for People's Education.
- Socio-Economic Problems of Rural Societies.
- Effective Models of Sustainable Development.
- Energy Utilisation

Promotion of Research

- advancing funds for sanctioned projects
- providing seed money
- simplification of procedures related to sanctions / purchases to be made by the investigators
- autonomy to the principal investigator/coordinator for utilizing overhead charges
- timely release of grants
- timely auditing
- submission of utilization certificate to the funding authorities

Research Facilities

To meet out the need of **infrastructure,** University has undertaken extension of Science/Arts/ Engineering/ Agriculture buildings with all the modern facilities. This additional infrastructure paved the way for judicious use of the existing facility which was occupied by the departments.

New major equipment such as Texture analysers, Mainframe Servers HP Proliant, softwares in remote sensing and GIS laboratory are working in the University.

The adequate infrastructure and resources motivate researchers to undertake sponsored and self initiated projects.

Wi-Fi and Internet Facility

Uninterrupted power supply

Dedicated Staff for Laboratory maintenance

Provision and maintenance of basic research facilities.

INTIATIVES FOR IMPROVING LIVELIHOODS











Vocational Training For Employment









Off Campus Skill Development





INTIATIVES FOR IMPROVING LIVELIHOODS

BSW (COMMUNITY LEADERSHIP)

FIRST YEAR	SECOND YEAR	THIRD YEAR
Introduction to Social Work	History and Methods of Social Work	Secondary Methods and Fields of Social Work
Issues and Problems of Development	Community Organization and Moblization	Formation & Management of Voluntary Organizations
Leadership Development	Panchayatiraj and Rural Development	Micro Finance and Entrepreneurship Development
Communication and Life Skill Education for Development	Women Development and Empowerment	Rural Technology
Nutrition and Health Care	Legal Literacy	Fundamentals of Accounting
Child Development, Protection and Education	Computer Skill	Environmental Education
Field Work Practice	Field Work Practice	Field Work Practice
CERTIFICATE	**DIPLOMA**	**DEGREE**

Job Roles : Food Processing

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Assistant Lab Technician - Food and Agricultural Commodities	FIC/Q7601
			Jam, Jelly and Ketchup Processing Technician/ Lab Technician	FIC/Q5002
2.	Diploma	5	Food Products Packaging Technician	FIC/Q7001
			Processed Food Entrepreneur	FIC/Q9001
3	Advanced Diploma	6	Food Regulatory Affairs Manager	FIC/Q9002
			Quality Assurance Manager	FIC/Q7602
4	Degree	7	Production Manager	FIC/Q9003

Job Roles: Retail Management & IT

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Retail Sales Associate	RAS/Q0104
			Self-employed Retailer/Individual Sales Professional	RAS/Q0201
2.	Diploma	5	Retail Team Leader	RAS/Q0105
			Business Builder/Dukandar	RAS/Q0202
3	Advanced Diploma	6	Departmental Manager	RAS/Q0106
			Multichain Business Owner/Multichain Vyapari	RAS/Q0203
4	Degree	7	Retail Store Manager	RAS/Q0107

Agricultural Operations & Mgt

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Agriculture Field Officer	AGR/Q7701
			Soil & Water Testing Lab Assistant	AGR/Q8102
2.	Diploma	5	Soil & Water Testing Lab Analyst	AGR/Q8103
			Watershed Supervisor	AGR/Q6605
3	Advanced Diploma	6	Watershed Engineer	AGR/Q4606
			Agriculture Extension Executive	AGR/Q7602
4	Degree	7	Watershed Manager	AGR/Q6604

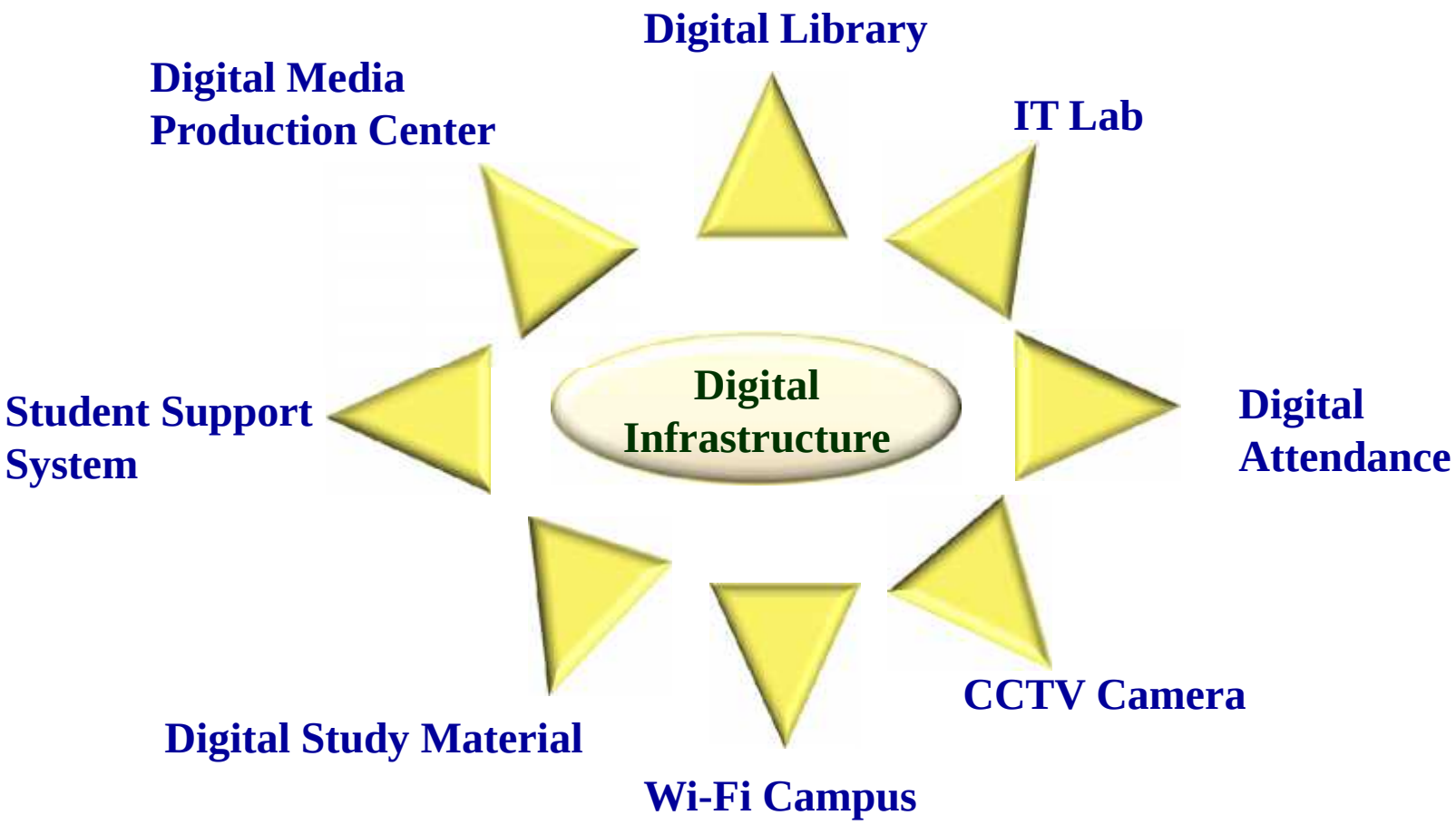
Renewable Energy Technology & Mgt

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Solar PV Installer(Electrical)	SGJ/Q0102
			Solar PV Installer (Suryamitra)	SGJ/Q0101
2.	Diploma	5	Rooftop Solar Grid Engineer	SGJ/Q0104
			Draftsman	ELE/Q7101
3	Advanced Diploma	6	Rooftop Solar PV Entrepreneur	SGJ/Q0104
4	Degree	7	Solar Proposal Evaluation Specialist	SGJ/Q0105

Building Construction Technology

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Construction Electrician	CON/Q0603
			Construction Laboratory & Field Technician	CON/Q0402
2.	Diploma	5	Foreman Concrete	CON/Q0110
			Foreman – Electrical Works (Construction)	CON/Q0604
3	Advanced Diploma	6	Supervisor - Electrical Works	CON/Q0605
			Surveyor	CON/Q0902
4	Degree	7	Quality Technician	CON/Q0403

IMPARTING DIGITAL EDUCATION



PLAN OF ACTION FOR QUALITY OF TEACHING



SWACHH BHARAT ABHIYAAN





Shramdaan,
Tree Plantation, Sanitation Awareness Campaign and Yoga are regular and mandatory features of University since its inception


महात्मा गाँधी चित्रकूट ग्रामोदय विश्वविद्यालय
Thanks

Digital Education Imparting: Knowledge Revolution

DR. BABU SEBASTIAN
VICE CHANCELLOR
MAHATMA GANDHI UNIVERSITY
KOTTAYAM, KERALA

Digital Learning Initiative (DLI)

We are excited to provide opportunities for improved learning and transformation of the educational experience

- The Digital Learning Initiative (DLI) provides a method to blend traditional, high-functioning classrooms with personalized, technology-rich digital classrooms - making a blended learning environment for our students.
- Educational trends support the need for students to become fluent in researching and acquiring information, in being critical thinkers able to solve problems, developing skills to communicate and work collaboratively, and to be innovators with focus on fostering creativity.
- Technology tools and resources enhance the way we prepare our students for their future college and career.
- Solid curriculum, innovative instruction, and digital learning strategies both inside and outside of the classroom combine to create increased levels student engagement and learning.

Why Digital Learning?

- Digital learning provides students with opportunities to be quality producers of digital content, products, and work otherwise not possible in a traditional environment.
- By sharing and working with their peers, problem-solving and collectively working on projects and assignments through technology-enhanced curriculum, students are collaborative workers and complex thinkers.
- Digital learning provides students technology-enhanced methods to be quality producers otherwise not possible in a traditional environment.
- Finally, digital learning opens up a world of possibilities to students to connect and collaborate with the community and beyond providing more opportunity to be community contributors.

Benefits to Students

- **Better Learning** –The use of multimedia classes with simulations and visualizations provide a richer learning environment toward a better understanding of concepts. Annotation technologies, discussion boards, and online support provide additional forums for discussion, debate, conjecture, and edification.

- **Best Practises**- Active individual engagement of students , hands-on experiences, group discussions and activities allow students to experience learning

- **Learn anytime, anywhere**: The technology provides the learner to learn from anywhere at any time. This helps students access advanced information needed for their thesis research when they need it. Digital learning makes education more accessible and affordable to students on campus and also worldwide.

Benefits to instructors

- **Leverage time better**: Digital learning provides quick feedback to instructors on where students are struggling, allowing teachers to provide additional instruction and answers to common questions, either online or in person. Automation eases or eliminates routine grading, freeing course teams to spend more face-to-face time with students.
- **Spread knowledge widely**: Digital platforms allow instructors to reach more students, often by orders of magnitude than via on-campus courses. Instructors can disseminate new ideas more quickly, touching more people and impacting more lives.
- **Engage a worldwide audience**: Digital platforms allow instructors to meld worldwide participants into campus teaching, creating global conversations – resulting in richer teaching experiences, from architecture and entrepreneurship, to climate change and innovation, and beyond.
- **Build learning modules quickly**: Digital learning empowers instructors to build courses using the best content previously developed by other instructors and colleagues, whether within the same department, or even at other institutions. This "digital abstraction" for modular learning content is the real meaning behind the "digital" of digital learning.
- **Improve instructional techniques**: Through evidence-based research, instructors can measure how people learn most effectively and respond with scientifically grounded strategies for educating students.

Digital platform

Digital Platform consists of the following components

- Digital Content Creation Studio & UMMRC
- Digital Storage of the digital Contents and Delivery
  - Information Power House
  - Data Centre-Servers and Storage
  - Campus Network
  - Smart Classroom
  - Wi-Fi network at university and colleges
  - Security and authentication
  - Webcasting
  - Mobile Application for Individuals
- Digital Knowledge Network Framework
- Tele Presence for real learning experience

Digital Content Creation

- MGU has set up a centre to create content in the form of video that support a massive open online course (MOOC).
- These contents are gathered and made accessible to other academics or the public through publications, databases, libraries and digital libraries.
- Academic content may be closed source or open access (OA).
  - Closed source content is only available to authorized users or subscribers. An important journal or a scholarly database may be closed source, available only to students and faculty through the institution's library.
  - Open access articles are open to the public, with the publication and distribution costs shouldered by the institution publishing the content.

Need of Digital Multimedia content

- Still the old British teaching methods such as black board, choke, lecturing, paper and pen are being used in the area of higher education sector of our state.
- But significance change in the classroom concept and teaching and learning process has been established in the developed countries such as multimedia content, virtual class room, interactive white board video conference facility , internet access, collaborative learning, group activities, learning portal etc.
- New educational psychology recommending activity oriented learning instead of traditional listening. Through listening the students will get an opportunity to get 20% knowledge and by seeing 50% of knowledge, and through doing 80% knowledge acquisition can happen.
- Now Knowledge is free from the constraint of time place and person. So its our responsibility to provide an opportunity to our students at any where any time learning . This is the ultimate need of 21st century.
- Now a days urban students are gifted with more higher educational facilities compared to the tribal rural and coastal students. Access, equity and quality in education are the main objective of the ministry of human resource , Govt. of India.
- Hence it's the time for ensuring equal opportunity for all the students especially the students from tribal, rural and coastal and other backward regions to access to the knowledge centres.

The Role of the Local Teacher

- The importance of two-way communication between instructors and students in class is well recognized. Technologies that over-emphasize “one way” communication of e- content often lead to student disengagement. Hence, any such technology intervention should recognize the vital role played by the local faculty member.
- Offering multimedia courses in technology-assisted modes has not only become invaluable for the learner, but also an attractive and creative option for faculty. Such courses have the potential to enhance the on-and off-campus learning experience for students and in a distance learning mode.
- Technology opens up several interesting avenues for innovation in design and delivery of courses as also for sharing expertise among faculty in different parts of the world. In India, where a large number of private institutions have entered the field of engineering education with inadequate faculty support and training, the project is aimed at providing a standard for academic content for both the teacher and the student
- Many of the courses, especially basic core courses in science and engineering are similar across many institutions in the country. Most institutions offer program in traditional branches of engineering with a large number of similar courses forming a substantial part of the undergraduate curriculum.


GET INTO PC

The Role of the Local Teacher

- There is clearly a lot of advantage in sharing the development work in these courses. Every instructor in India higher education institution must be provided tools and training to migrate all forms of instructional content that can be digitized into digital form, over the next five years.
- MGU has setup a studio for recording high-quality e-content. These facilities are made available to instructors at these institutions, as well as at all affiliated institutions.
- This facility is used for e- content creation by recognized experts, and have trained technician on hand to ensure that instructors can be given prompt help with any hardware and software issues.

Digital Storage of Digital Contents

1. **Information Power House :**
   - MGU has created Cloud-based Repository of digital instructional materials. This Repository will provide both a single-point access for students and teachers to access content created by other institutions, and will provide data-backup for institutions for their local media servers.
   - For the ICT based learning and research, all digital resources such as e-books, e-journals, doctoral thesis, academic level publications, interactive multimedia learning objects, video lessons, audio lessons, animations, graphics, simulations, virtual labs, dictionary, encyclopaedia, etc. Available with Indian and foreign university's/ agencies / institutions to be collected to form an information power house at university. Later these power houses can be clustered together to form a state level digital repository. This information power house would be made available for students from all college and university for their learning. The infrastructure for building the above should be implemented at university level.

Digital Storage of Digital Contents

2. Data Centre

- MGU has already set up a State of the art Data centre to run the services.
- The data centre meets international standards in sustainability and efficiency, reducing your total energy consumption.
- Data centres provide a secure facility for housing vital IT services across the University.
- These facilities are available to departments, faculties and colleges and allow them to physically locate computing equipment in a highly secure and controlled environment.

Digital Storage of Digital Contents

3. Campus wide Network

- 1 GB campus network is a must in all institutions to deliver all the services related to e gov and e learning.
- Proper network audit should be carried out in the existing network before going the upgradation.
- MGU has implemented OFC back bone as per the proper standards. Core switch, distribution switch and access layer switches are to implemented for the network.
- Network is designed considering for the future workloads also.

Digital Storage of Digital Contents

4. Smart Classrooms

MGU has implemented 15 Smart classrooms and each classroom has:

- “ultra short throw” fixed digital projector for displaying a variety of e-content, with sufficient brightness for the room.
- Micro pc (without monitor) that can be used to display slides, videos, and other e-content using the projector.
- Powerful audio system (100 Watts powered speakers)to connect it to PC. Digital Mixers are provided for echo cancellation and noise reduction
- Higher End Video Conferencing equipment are provided for Immersive meeting
- Boundary layer microphones are provides for natural voice reproduction and to avoid unwanted sound
- Acoustics has done for better listening
- Modern type ARC benches are provided
- Multiple level platform provided for better viewing
- Access to a shared 100Mbps Local Area Network (LAN) and Wireless LAN (W-LAN), through which the instructor can access the institution’s Media Server



Digital Storage of Digital Contents

5. Wi-Fi-Network

- Employees, students, and guests will have shared access to wireless network resources to support the MGU's mission of teaching, research, and outreach.
- Anyone who wishes to connect to the MGU's authoritative campus network with a laptop or other wireless device must use wireless network infrastructure devices that are owned by and centrally managed by the institution to ensure integrity, security, and availability for appropriate educational and business activities.
- Around 100 APS are installed IN MGU , work is going on

Digital Storage of Digital Contents

6. Network Security (Gateway)

- The core structure of this project is Strong
- Authentication/ good content filtering with proper Anti-virus for the secure Service access through net. The content filter keeps Web surfing safe for your users, and guards them against viruses and unwanted content such as violence, pornography or illegal software.
- It allows teachers to securely monitor the network's Internet access to ensure compliance and improve productivity.
- AAA authentication system is implemented to prevent any unauthorized access

Digital Storage of Digital Contents

7. Web casting

- Webcasting is a general term in IT that refers to broadcasting or presenting over the Internet.
- MGU University also focused on providing webcasting services to stake holders .
- Webcasting can be done in a pre-recorded and pre-arranged series, which end users access on demand. University will webcast lecture where a lecture on location can

8. Mobile Application:

- A mobile application has been implemented at university level to access the application and contents provided.

Knowledge Network Framework

Scope and Objective

- MGU has established Knowledge Network Framework with affiliated college for the knowledge dissemination. University has huge learning resources and able to prepare e-learning recourses for students and teachers for their affiliated colleges.The quality of education depends on how the colleges are providing resources to faculties and students. These resources will enhance the quality of education, students and faculty profiles then to the college as well.
- Using this network we can share not only learning resources but also secure data transmission like examination marks, question papers etc. The University is part of INFLIBNET and NKN, through which many e-learning materials are shared by the UGC. In addition to this University subscribed many e-journals, e-books and e-magazines.. The electronic materials subscribed by the University can be effectively used by sharing the materials to the students and teachers in affiliated colleges.

Knowledge Network Framework

Major advantages :

- Maximize the resource utilisation
- Cost effective to users
- Provision for more subscriptions
- Provision for more storage in e-recourses
- Creation of video learning solutions
- Broadcasting of classes

Knowledge Network Framework

Through VPN, the following can be shared among universities and colleges:

- Secured Data transfer between colleges and university related to E-Governance
- E-Leaning project
- Presentations
- E-books, E-journals
- Digital Libraries
- MOOC
- Principal meetings, Discussions
- Live classes from University by eminent speakers
- Online courses
- Video courseware's in different subjects
- Documents related to administration

Knowledge Network Framework

Telepresence Solution

- Telepresence is a state-of-the-art secure, high definition, digital video conferencing system.
- The system focuses on providing the most realistic experience for its users offering high-quality spatial audio and video.
- Meeting participants appear life-like and life-size across the “virtual table” that is created by Telepresence.



Telepresence System : Advantages

- Expands the learning environment of the students by offering them a virtual window and thus increased access to learning for all.
- Offers integrated, flexible distance learning opportunities to achieve educational excellence
- Simulates a traditional face-to-face environment which is the ancient form of teaching, but no longer limits where the students and teachers being in the same place.
- Participants at multiple sites are able to see, hear, and interact with each other in real time.
- Delivers a versatile interactive education to meet the needs and requirements of 21st century learners as global citizens of the world.
- Students explore the world, travel to various locations, and interact face-to-face with others without ever leaving the classroom. The students could extract the wisdom, expertise, innovation and knowledge of anyone, anytime, anywhere
- It is evident that streaming video and multimedia content are successfully engaging students in new forms of active and collaborative learning
- Telepresence is not intended to replace traditional classroom teaching or online learning. Rather, it complements both,
- A suitable solution which will overcome deficiencies in staffing, inability to offer required courses, and increased difficulty in obtaining professional development training.
- Cost effective solution to the Rural area educational institution

MG University Telepresence System

- The MG University Telepresence System (MGUTS) is an initiative that links departments in the university.
- Later all affiliated colleges can be added to the system for more effective classes.
- The University Telepresence system also enables concurrent meetings to be held with different departments and colleges

e –Governance

Technologies for Admissions, Examinations

- All administrative activities related to Admissions, Examinations and Transcripts can be performed transparently and effectively using technology available today.
- Hence, these time-consuming and critical activities should be fully automated .
- We are on the process of automating all activities related to e governance

Thank you



Digital Learning Initiatives in MG University

We are excited to provide opportunities for improved learning and transformation of the educational experience.

The Digital Learning Initiative (DLI) provides a method to blend traditional, high-functioning classrooms with personalized, technology-rich digital classrooms - making a blended learning environment for our students.

Educational trends support the need for students to become fluent in researching and acquiring information, in being critical thinkers able to solve problems, developing skills to communicate and work collaboratively, and to be innovators with focus on fostering creativity.

Technology tools and resources enhance the way we prepare our students for their future college and career.

Solid curriculum, innovative instruction, and digital learning strategies both inside and outside of the classroom combine to create increased levels student engagement and learning.

Why Digital Learning?

Digital learning provides students with opportunities to be quality producers of digital content, products, and work otherwise not possible in a traditional environment.

By sharing and working with their peers, problem-solving and collectively working on projects and assignments through technology-enhanced curriculum, students are collaborative workers and complex thinkers.

Digital learning provides students technology-enhanced methods to be quality producers otherwise not possible in a traditional environment.

Finally, digital learning opens up a world of possibilities to students to connect and collaborate with the community and beyond providing more opportunity to be community contributors.

Benefits to Students

- Better Learning –The use of multimedia classes with simulations and visualizations provide a richer learning environment toward a better understanding of concepts. Annotation technologies, discussion boards, and online support provide additional forums for discussion, debate, conjecture, and edification.

- Best Practises- Active individual engagement of students , hands-on experiences, group discussions and activities allow students to experience learning

- Learn anytime, anywhere: The technology provides the learner to learn from anywhere at any time. This helps students access advanced information needed for their thesis research when they need it. Digital learning makes education more accessible and affordable to students on campus and also worldwide.

Benefits to instructors:

- Leverage time better: Digital learning provides quick feedback to instructors on where students are struggling, allowing teachers to provide additional instruction and answers to common questions, either online or in person. Automation eases or eliminates routine grading, freeing course teams to spend more face-to-face time with students.
- Spread knowledge widely: Digital platforms allow instructors to reach more students, often by orders of magnitude than via on-campus courses. Instructors can disseminate new ideas more quickly, touching more people and impacting more lives.
- Engage a worldwide audience: Digital platforms allow instructors to meld worldwide participants into campus teaching, creating global conversations – resulting in richer teaching experiences, from architecture and entrepreneurship, to climate change and innovation, and beyond.
- Build learning modules quickly: Digital learning empowers instructors to build courses using the best content previously developed by other instructors and colleagues, whether within the same department, or even at other institutions. This "digital abstraction" for modular learning content is the real meaning behind the "digital" of digital learning.
- Improve instructional techniques: Through evidence-based research, instructors can measure how people learn most effectively and respond with scientifically grounded strategies for educating students.

Digital Plat form consists of the following components

1) Digital Content Creation Studio & UMMRC
2) Digital Storage of the digital Contents and Delivery

    a. Information Power House
    b. Data Centre-Servers and Storage
    c. Campus Network
    d. Smart Classroom
    e. Wi-Fi network at university and colleges
    f. Security and authentication
    g. Webcasting
    h. Mobile Application for Individuals

3) Digital Knowledge Network Framework
4) Tele Presence for real learning experience

Digital Content Creation-

MGU has set up a centre to create content in the form of video that support a massive open online course (MOOC). These contentsare gathered and made accessible to other academics or the public through publications, databases, libraries and digital libraries. Academic content may be closed source or open access (OA). Closed source content is only available to authorized users or subscribers. An important journal or a scholarly database may be closed source, available only to students and faculty through the institution's library. Open access articles are open to the public, with the publication and distribution costs shouldered by the institution publishing the content.

Need of Digital Multimedia content

Still the old British teaching methods such as black board, choke, lecturing, paper and pen are being used in the area of higher education sector of our state. But significance change in the classroom concept and teaching and learning process has been established in the developed countries such as multimedia content, virtual class room, interactive white board video conference facility , internet access, collaborative learning, group activities, learning portal etc… New educational psychology recommending activity oriented learning instead of traditional listening. Through listening the students will get an opportunity to get 20% knowledge and by seeing 50% of knowledge, and through doing 80% knowledge acquisition can happen. Now Knowledge is free from the constraint of time place and person. So its our responsibility to provide an opportunity to our students at any where any time learning . This is the ultimate need of 21st century. Now a days urban students are gifted with more higher educational facilities compared to the tribal rural and coastal students. Access, equity and quality in education are the main objective of the ministry of human resource , govt. of India. Hence it's the time for ensuring equal opportunity for all the students especially the students from tribal, rural and coastal and other backward regions to access to the knowledge centres.

The Role of the Local Teacher

The importance of two-way communication between instructors and students in class is well recognized. Technologies that over-emphasize "one way" communication of e- content (which includes live lectures, or pre-recorded content with no inputs from the local teacher) often lead to student disengagement. Hence, any such technology intervention should recognize the vital role played by the local faculty member.

The concept of multimedia based courses with high potential of interactivity has become a popular and a viable option for both the developed and the developing nations, though for different reasons. Offering multimedia courses in technology-assisted modes has not only become invaluable for the learner, but also an attractive and creative option for faculty. Such courses have the potential to enhance the on-and off-campus learning experience for students and in a distance learning mode. Technology opens up several interesting avenues for innovation in design and delivery of courses as also for sharing expertise among faculty in different parts of the world. In India, where a large number of private institutions have entered the field of engineering education with inadequate faculty support and training, the project is aimed at providing a standard for academic content for both the teacher and the student

Many of the courses, especially basic core courses in science and engineering are similar across many institutions in the country. Most institutions offer program in traditional branches of engineering with a large number of similar courses forming a substantial part of the undergraduate curriculum. There is clearly a lot of advantage in sharing the development work in these courses. Every instructor in India higher education institution must be provided tools and training to migrate all forms of instructional content that can be digitized into digital form, over the next five years.



- MGU has studio for recording high-quality e-content. These facilities are made made available to instructors at these institutions, as well as at all affiliated institutions. This facility is used for e- content creation by recognized experts, and have trained technician on hand to ensure that instructors can be given prompt help with any hardware and software issues.

Digital Storage of Digital Contents

a. **Information Power House :** MGU has created Cloud-based Repository of digital instructional materials. This Repository will provide both a single-point access for students and teachers to access content created by other institutions, and will provide data-backup for institutions for their local media servers.

   For the ICT based learning and research, all digital resources such as e-books, e-journals, doctoral thesis, academic level publications, interactive multimedia learning objects, video lessons, audio lessons, animations, graphics, simulations,

virtual labs, dictionary, encyclopaedia, etc. Available with Indian and foreign university's/ agencies / institutions to be collected to form an information power house at university. Later these power houses can be clustered together to form a state level digital repository. This information power house would be made available for students from all college and university for their learning. The infrastructure for the building the above should be implemented at university level.

b. Data Centre : MGU has already set up a State of the art Data centre to run the services.The data centre meets international standards in sustainability and efficiency, reducing your total energy consumption. Data centres provide a secure facility for housing vital IT services across the University. These facilities are available to departments, faculties and colleges and allow them to physically locate computing equipment in a highly secure and controlled environment.

c. Campus wide Network – 1 GB campus network is a must in all institutions to deliver all the services related to e gov and e learning. Proper network audit should be carried out in the existing network before going the upgradation. MGU has implemented OFC back bone as per the proper standards. Core switch, distribution switch and access layer switches are to implemented for the network. Network is designed considering for the future workloads also.

d. Smart Classrooms

The Government of Indiais converting convert every classroom in every higher education institution in the country to a smart classroom. MGU has implemented 15 Smart classrooms as per the details below



- Each smart classroom equipped its own fixed digital projector for displaying a variety of e-content, with sufficient brightness for the room. A “ultra short throw” projector is used, projecting onto a dual purpose whiteboard.

- Each smart classroom has a Micro pc (without monitor) that can be used to display slides, videos, and other e-content using the projector.
- Each smart classroom have a sufficiently powerful audio system (100 Watts powered speakers)to connect it to PC. Digital Mixers are provided for echo cancellation and noise reduction
- Higher End Video Conferencing equipment are provided for Immersive meeting
- Boundary layer microphones are provides for natural voice reproduction and to avoid unwanted sound
- Acoustics has done for better listening
- Modern type ARC benches are provided
- Multiple level platform provided for better viewing
- Each smart classroom have access to a shared 100Mbps Local Area Network (LAN) and Wireless LAN (W-LAN), through which the instructor can access the institution’s Media Server

e. Wi-Fi-Network

Employees, students, and guests will have shared access to wireless network resources to support the MGU's mission of teaching, research, and outreach. Anyone who wishes to connect to theMGU's authoritative campus network with a laptop or other wireless device must use wireless network infrastructure devices that are owned by and centrally managed by the institution to ensure integrity, security, and availability for appropriate educational and business activities. Around 100 APS are installed IN MGU , work is going on

f. Network Security (Gateway)- The core structure of this project is Strong Authentication/ good content filtering with proper Anti-virus for the secure Service access through net. The content filter keeps Web surfing safe for your users, and guards them against viruses and unwanted content such as violence, pornography or illegal software. It allows teachers to securely monitor the network's Internet access to ensure compliance and improve productivity. AAA authentication system is implemented to prevent any unauthorized access

g. Web casting :Webcasting is a general term in IT that refers to broadcasting or presenting over the Internet. MGU University also focused on providing webcasting services to stake holders .Webcasting can be done in a pre-recorded and pre-arranged series, which end users access on demand. University will webcast lecture where a lecture on location can be delivered over the Web

h. Mobile Application: A mobile application has been implemented at university level to access the application and contents provided.

Knowledge Network Framework- Scope and Objective

MGU has established Knowledge Network Framework with affiliated college for the knowledge dissemination. University has huge learning resources and able to prepare e-learning recourses for students and teachers for their affiliated colleges.The quality of education depends on how the colleges are providing resources to faculties and students.

These resources will enhance the quality of education, students and faculty profiles then to the college as well.

Using this network we can share not only learning resources but also secure data transmission like examination marks, question papers etc. The University is part of INFLIBNET and NKN, through which many e-learning materials are shared by the UGC. In addition to this University subscribed many e-journals, e-books and e-magazines.. The electronic materials subscribed by the University can be effectively used by sharing the materials to the students and teachers in affiliated colleges. Major advantages of the solution are:

- Maximize the resource utilisation
- Cost effective to users
- Provision for more subscriptions
- Provision for more storage in e-recourses
- Creation of video learning solutions
- Broadcasting of classes

For secured network connectivity between university and colleges, VPN can be established. Each college is connecting to university data centre through VPN connectivity and accountable resources are shared through this connectivity. The following can be shared among universities and colleges:

- Secured Data transfer between colleges and university related to E-Governance

E-Leaning project

- Presentations
- E-books
- E-journals
- Digital Libraries
- MOOC
- Principal meetings
- Discussions'
- Live classes from University by eminent speakers
- Online courses
- Video courseware's in different subjects

- Documents related to administration

Telepresence Solution-Telepresence is a state-of-the-art secure, high definition, digital video conferencing system. The system focuses on providing the most realistic experience for its users offering high-quality spatial audio and video. Meeting participants appear life-like and life-size across the "virtual table" that is created by Telepresence.



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- ✓ Telepresence in Education expands the learning environment of the students by offering them a virtual window and thus increased access to learning for all.

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- ✓ Through telepresence, students explore the world, travel to various locations, and interact face-to-face with others without ever leaving the classroom

- ✓ The students could extract the wisdom, expertise, innovation and knowledge of anyone, anytime, anywhere

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e Governance (Technologies for Admissions, Examinations)

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MOTHER TERESA WOMEN'S UNIVERSITY,
KODAIKANAL-624 101
TAMILNADU



BEST PRACTICES AT MOTHER TERESA WOMEN'S UNIVERSITY

Dr. G. VALLI
Vice Chancellor
Mobile No.: 09442541121
Mail.id.: vicechancellor@mothertersawomenuniv.ac.in

Innovative methods for Teaching- Learning Process

- Psychological need of the students are identified and the teaching methods are diversified according to their deep rooted needs.
- Develop e-content and video recording for whole syllabus from 2018-19 syllabus onwards (TANSCHE is planning for 75% uniform syllabus for the State Universities)
- 25% of the syllabus in all departments will be framed for women empowerment linked to societal and extension activities.

- Capacity Building programs for the students to evolve as prime leaders, in taking on responsibilities and sharing delegation of powers and resources to team spirit in achieving destined goals.



- Virtual Dissection software is purchased by the University. Students and Faculty members of Life Science Department in University and Affiliated Colleges are oriented and given user id and password for further usage in their practical classes. It will be constantly upgraded with advanced software and videos.



- Schedule Video Conferencing lectures and International online Webminars well in advance of the commencement of every academic year regularly.
- Syllabus for Competitive exams given primary importance.
- Online assignments scheduled in accordance with the academic planning of every department.
- Consolidated student feedback on teaching and action is floated on the webpage by IQAC.

- A-VIEW (Amrita Virtual Interactive e-learning World) learning system.

- Universities apart from providing an ideal material environment, should create quality parameters for students moulding their self esteem, self confidence and dignity in enhancing teaching learning process.

- Despite the techno-empowerment and techno-savvy practices, a basic humanitarian approach to the need and care of the students is the imperative demand of the hour, a personal touch will make miracles in altering the students attitude and approach to the learning process rendering them as frontline holistic individuals a society can be proud of as its integral entity.



Action taken on reducing the Legal Cases.

- In these emerging times, Universities can not function as simply ivory towards or as islands for promoting intellectual aspirants of young minds.
- Universities have to serves transforming agents, as catalyst of change, to usher in revolutionary ideas pushing the frontiers and intellectual horizons of Universities to the far zenith.



- Courts are platforms, a person resort to legally for seeking redressal to a grievance.

- The Mother Teresa Women's University (MTWU), Kodaikanal has been facing numerous legal cases for its share and as a nodal agency for conduct of TNSET 2015-18, more so has to confront major legal cases including contempt of court.

- As a University, in the threats of development and expansion, setting aside a major portion of its time for attending courts cases saps a lot of its time, energy, money and other material resources.

- Letters may be an old mode of communication however efforts are taken to write to petitioners on a personal note of correspondence to address the grievances in a meaningful context and inviting them for a open discussion.

- Besides individuals with grievances are brought to negotiating table for a dialogue, for consultation of issues troubling them.



- Individuals under mental stress and psychological insecurity resort to legal redressal have counseled to let go of their ego conflict and face ground realities when resorting to the court which could be a expensive affair for people from non-creamy layer.

- A MTWU Portal for Legal Aid Cell has been created as a Forum for both the parties to sit across the discussion table for a frank and candid expression of their ‘differences’ in perspectives on a case.

- A legal friendly and lawyer/court friendly approaches are adopted for the speedy and immediate resolutions to a legal tangle.

- A person to person contact is the most inevitable need in these personal times to resolve any kind of legal or other concerns of life.



THANK YOU



MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL- 624 101

Dr. G. VALLI,
Vice Chancellor

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Savitribai Phule Pune University (SPPU) Contribution Report

"National Convention on Digital Initiatives for Higher Education"

By Dr N R Karmalkar, Vice Chancellor, SPPU

1. SWAYAM:

   SPPU has its own MooC (Massive Online Open Courses) portal
   http://eclm.unipune.ac.in/
   EContent Development & Learning Innovation Center (eCDLIC) is the initiative by SPPU funded by RastriyaUcchatarShikshaAbhiyan (RUSA). The initiative came in production from February 2016. E-content Learning Modules Platform (ECLM) developed by eCDLIC was inaugurated by HRD Minister, Govt. of India. This platform makes available various online academic sessions recorded at e content studio of SPPU as well as organized by academic units on campus to students of the University.

2. SWAYAM-Prabha:

   Through online web telecasting of Vidyavani community radio (for distributing Academic content), university is ensuring reach of Vidyavani in remote areas where the transmission cannot reach and also making available content in Archived format to referwherever required.
   Also, Educational Multimedia Research Center (EM2RC) is one of the centers established by the UGC to promote educational television programs for the Countrywide Classroom project. This Center imparts training in educational e-content generation and management by using multimedia interactive platforms. Currently SPPU has taken intitiative to create Management Faculty eContent.

3. The National Digital Library:

   Provision of e-books and online access to the leading journals through the Central Jaykar Library. Library has 5774 eBooks. Library has purchased EZ proxy software so that access can be provided to subcentres as well as affiliated colleges (693). Library provides web based OPAC (Online Public Access Catalog). Average number of login to OPAC per year is 2,92,022

4. The National Academic Depository (NAD):

   SPPU has MoU with CDSL(Central Depository Services Limited). It hasuploaded and verified degrees from 2016. Total number of degrees available online are 48,000 till date. It has been linked with Aadhar. Students can avail this facility online.

5. eShodh-Sindhu:

Participates in UGC- INFLIBNET program. Under this program access to more than 8000 journals are provided.

6. Virtual Labs:

University has 57 computer labs and 2650 systems available to the students. As a dedicated setup for IT Cell, 26 physical servers and 56 Virtual Servers are hosted at University Data centre. The data centre has been established in 2008. It's Tier-2 datacentre. University has submitted proposal to RUSA for setting up Computer Lab for Cyber Security and has 4 credit course on Cyber Security. It has also submitted proposal for "Train The Teacher" so that the course can be available as skill development credit course to all students in Maharashtra.

7. Campus Connectivity:

University Campus is provided with Wi-Fi and optical fiber connectivity of 1 GBPS. Under ERNET program 4 universities were selected initially for WiFi. Complete campus of campus has WiFi facility now. It is available to all students, Faculty and staff of the university. Looking at the current utilization, university may be eligible for higher GBPS connectivity through NKN (National Knowledge Network),

Apart from mentioned above following are other Digital Initiatives

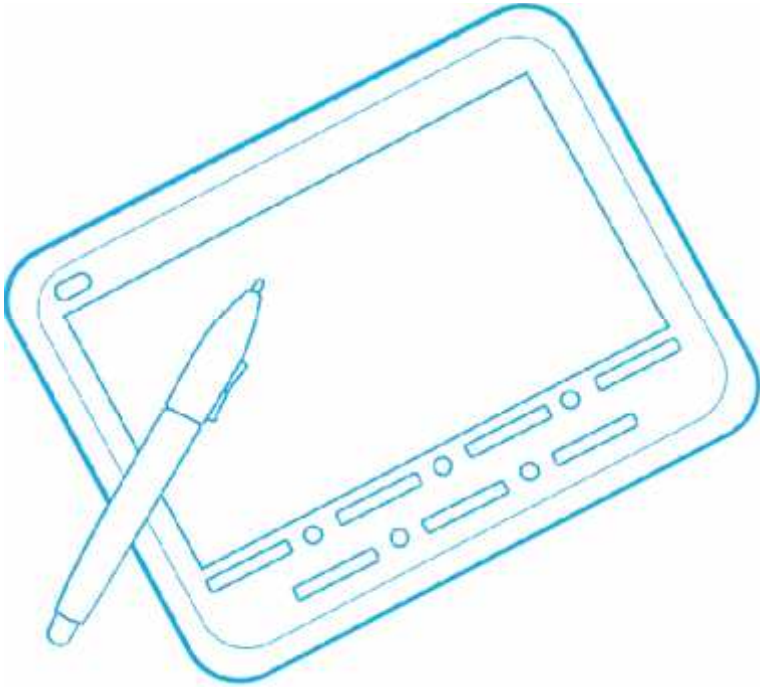
- Separate Portal for Departments are created with usability for each stakeholders(admin.unipune.ac.in, bcud.unipune.ac.in, exam.unipune.ac.in, finance.unipune.ac.in)
- Student Facilitation Center at Pune, A'Nagar, Nashik sub centers IT automation
- CentralisedAssessment Process (CAP) Automation
- Successful Barcode system implementation
- In-house Email System
- Online Transmission of Sessions

Awards

Maharashtra Statee-Governance Award -2013



Ready to scale up



Transforming Examinations

Digital Innovation in exams- *paperless digital examinations*

Dr.K.Ramasamy,
Vice - Chancellor,
Tamil Nadu Agricultural University
Coimbatore

Written Examinations are everywhere…

25m

university students take

250m+

exams annually
in India alone



Challenges:

Security: before and during exam

Cycle time: lengthy, complex review & revisiting

Malpractices: paper leaks, candidate impersonation & cheating

Logistics: across multiple locations, storage of answer scripts

Evaluation : security and transparency, errors in marking & tabulation

No analytics: lack of data

Use/ wastage of paper

Solution developed and proven

End-to-end paperless written examinations

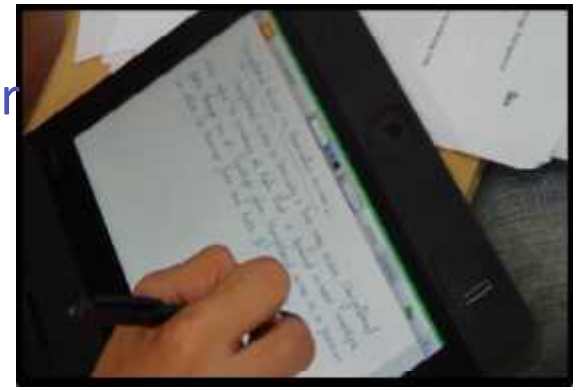
Students write on custom tablet close to paper

Cloud based modules –

Evaluation, administration easy

Huge efficiencies and added security

Saving of paper and energy

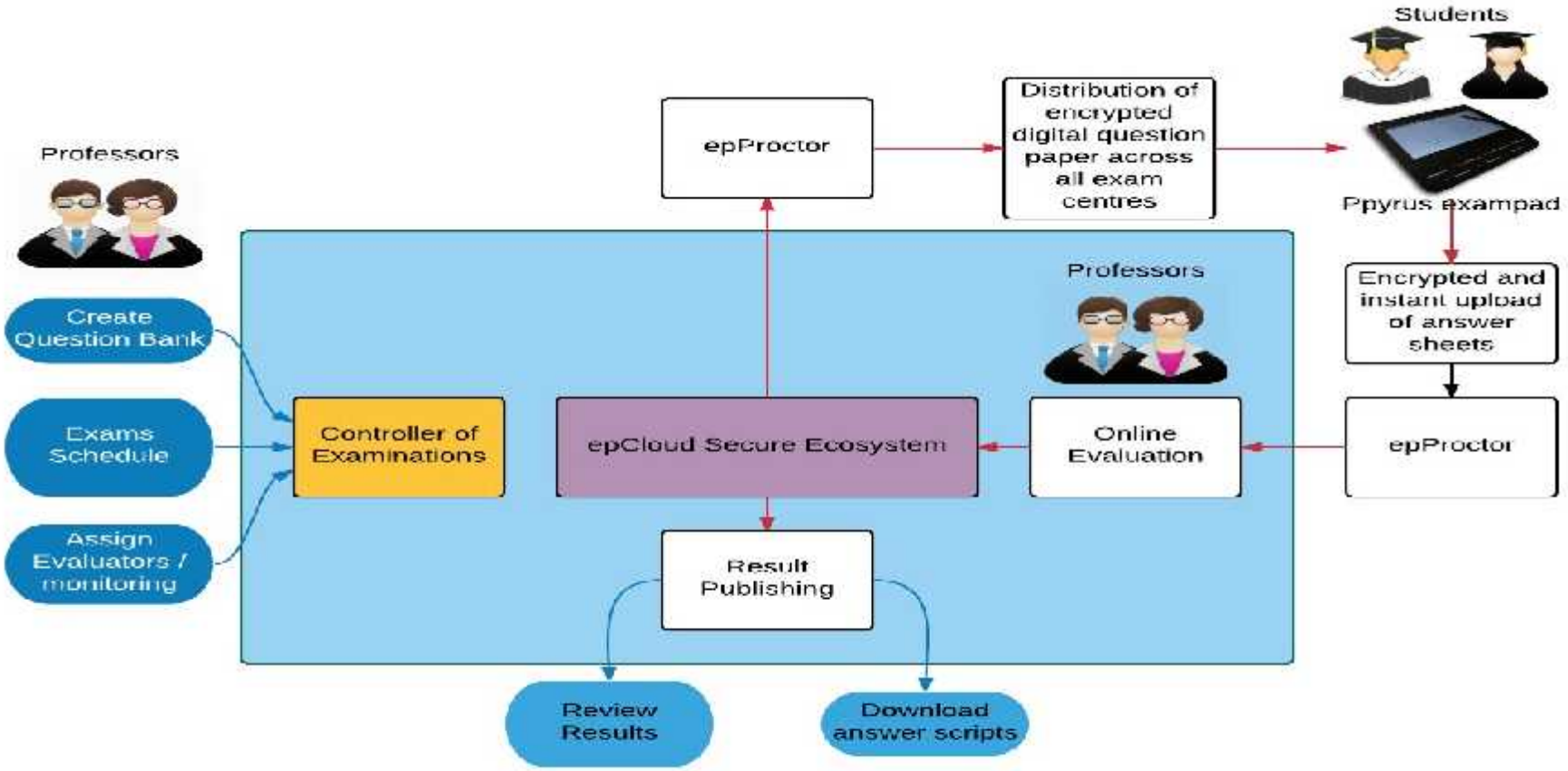


200,000 university exams conducted – 2 million pages

- Across 24 institutions in Tamil Nadu
- Excellent feedback



Paperless written examinations



- **Cuts exam cycle time up to 50%**
- **Fully secure**
- **Anywhere/anytime evaluation**
- **Complete digital audit trail**

Implementation Status

Tamil Nadu Agricultural University (TNAU)

Migrated to Digital Exams 3 years back

17 Colleges, 5000 students currently writing digital exams

Digital Exam Delivery Snapshots









Why TNAU switched over to paperless?



- **200,000+ exams done with zero error** for them over 3 years across multiple exam cycles and locations .
- **Excellent experience/feedback** of students, faculty and Controller of Examination offices.
- **Gains efficiency and obvious advantage -** Cuts total cycle time for exam by 50+%. Security cum Transparency.
- **Environmental impact** – becomes larger issue.
- **Forward thinking**, progressive institution which helps attract students.

Compared to paper the cost involved is justifiable considering the advantages

Digital Initiatives of the Directorate of Extension Education, TNAU, Coimbatore

BY

Dr .K.Ramasamy,

Vice- chancellor

Tamil Nadu Agrl University,

Coimbatore

Digital initiatives carried out at Educational media centre

- ✓ Around 2500 students of various constituent / affiliated colleges of TNAU were imparted with Techniques of video production processes, editing procedures and backgroundvoice over skills on varied languages
- ✓ Video camera handling skills though advanced techniques of Digital video production utilizing the Sony Digital Video Camera

Editing with advanced softwares

- ✓ Advanced editing techniques are being imparted with the editing Softwares like Adobe premiere/Avid Media composer/ and apple series like Final cut pro which is of recent development

Cloud computing videos

- ✓ Cloud computing of Agricultural videos in 3GP on path breaking agrl technologies of about 1712 are being produced by 100s of students representing the UG/PG/Phd levels of TNAU and uploaded in the computer cloud space generated by the State Government of Tamil Nadu along with Amazon

Crash course on multimedia

- ✓ Crash course on media like media advertising Film making, Graphic Designing, Animation Techniques are being offered enrolling 10s of 100s of students to learn media skills and eligible to get employment at private media firms and advertisement agencies
- ✓ Agrl video films produced in the bluray format which is high definition video quality in the digital era

Digital initiatives undertaken at e-Extension centre

- ✓ Establishment of Agri tech portal, a digital initiative started from 2008, created wide range of opportunities to the students community, to gain first hand information on the recent advancements in ICT Products like Agritech Portal, Expert system, mobile app application in Expert System ,e-Velanmai, and Video conferencing

Agritech portal

- ✓ Nearly 22,550 students across Tamil Nadu got exposed on these products who visit the university on educational tours every now and then for past 8 years
- ✓ The portal messages are accessed with the Google play store in Public Domain and M-how Store in the Government of India Domain

Utilitarian benefits for students

- ✓ Benefits accrued by the students include assignment preparation
- ✓ Content for Theses materials
- ✓ Technical details in the form of texts/videos/photos and audio
- ✓ Updated and renewed periodically

DIGITAL INITIATIVES OF TAMIL NADU FISHERIES UNIVERSITY FOR HIGHER EDUCATION

TAMIL NADU FISHERIES UNIVERSITY
FIRST LINE BEACH ROAD
NAGAPATTINAM – 611 001

☎04365 241444 04365 240087

www.tnfu.ac.in

TAMIL NADU FISHERIES UNIVERSITY DIGITAL INITIATIVES FOR HIGHER EDUCATION

Tamil Nadu Fisheries University (TNFU) is the State funded University imparting professional fisheries education, research and extension programmes to enhance fish production and utilization by following the State Agricultural University (SAU) pattern and syllabi.

VISION

“Harnessing the Science of Fisheries for Food, Nutrition and Livelihood”

TNFU IS ESTABLISHED WITH THE FOLLOWING OBJECTIVES

- To impart quality professional education in different branches of Fisheries Sciences as the University may determine.
- To conduct organized research in frontier areas with the objective of developing cutting edge technologies in Fisheries Sciences.
- To provide extension services like training, consultancy, project formulation to fish farmers, fisherfolk, unemployed youth and entrepreneurs in Fisheries Sciences.
- To facilitate comprehensive development of Fisheries Sciences for increased contribution to State economy and set benchmark standards through appropriate interventions in fisheries teaching, research and extension.
- To generate baseline data on aquatic biodiversity and fisheries resource potential.
- To generate high quality professionals in Fisheries Sciences by following the Veterinary Council of India regulations as a model.
- To create better opportunities for marketing and value addition of fish and fishery products.
- To set up an aquatic disease diagnosis and surveillance system in the State.

EDUCATION

Tamil Nadu Fisheries University offers professional degree programmes in Fisheries Science.

- **UG Programmes:**

  - Bachelor of Fisheries Science (B.F.Sc.) - with an intake of 120 students per year.
  - B.E. (Fisheries Engineering) - with an intake of 20 students per year.

- **PG Programmes:**

  - Master of Fisheries Science (M.F.Sc.) in ten disciplines with an intake of 41 students per year.
  - Ph.D. in Fisheries Science in eight disciplines with an intake of 24 students per year.

Many student friendly facilities like library with computer and internet and Wi-Fi facilities, e-learning facilities, student's placement cell are available in the University to promote the interests of students in acquiring knowledge on various aspects of fisheries science as well as in finding their suitable placements.

CONSTITUENT COLLEGES OFFERING UNDERGRADUATE AND POSTGRADUATE DEGREE COURSES

I. Fisheries College and Research Institute (FC&RI), Thoothukudi.

Fisheries College and Research Institute, Thoothukudi is the second oldest college in the country, offering B.F.Sc., M.F.Sc. and Ph.D. degree Programmes. This institute is located in Thoothukudi since 1977. The Fisheries College and Research Institute has 13 departments and a well-established Library and offers M.F.Sc. programmes in 10 disciplines and Ph.D. in 8 disciplines. Separate hostel facilities are available for boys and girls in the campus.



II. Fisheries College and Research Institute, (FC&RI) Ponneri (Thiruvallur district)



Fisheries College and Research Institute located in Ponneri campus, near Chennai was established in 2012. This institute offers B.F.Sc. degree programme from the academic year 2014-15 and M.F.Sc. and Ph.D. programmes from the academic year 2016-17. This Institute has three satellite centres ably supporting the academic and research activities in the location of Madhavaram, OMR Chennai and Pulicat, Thiruvallur district.

III. College of Fisheries Engineering, Nagapattinam.

College of Fisheries Engineering located in Nagapattinam campus offers four years professional degree programme B.E. (Fisheries Engineering) from the academic year 2015-16. Infrastructure facilities of the institution, including student hostels are being established in the Tamil Nadu Fisheries University main campus in Panangudi village, Nagore, on the ECR between Karaikal and Nagapattinam.



IV. Institute of Postgraduate studies, Vaniyanchavadi, Chennai



The Institute of Postgraduate Studies (IPGS) located at Tamil Nadu Fisheries University OMR Campus, Vaniyanchavadi, Chennai is offering postgraduate degree programmes in six discipline from this academic year (2017-18).

DIGITAL INITIATIVES OF THE UNIVERSITY SINCE 2012

Nowadays, the advances in Information and Communication Technology (ICT) have changed the ways of communication in education and delivery of knowledge to the learners. The significance of ICT is now widely recognised and the need for higher learning institutions to contribute knowledge in this area is also emphasised. Therefore, in order to strengthen the digital initiatives for higher education and to provide better digital teaching materials, online and offline educational resources for the students and faculty members, the Department of Fisheries Information and Statistics was established at the Fisheries College and Research Institute, Thoothukudi during 2013 with the following objectives.

1. To teach fisheries information and statistics courses for undergraduate and postgraduate students.
2. To conduct research programmes in fisheries information and statistics.

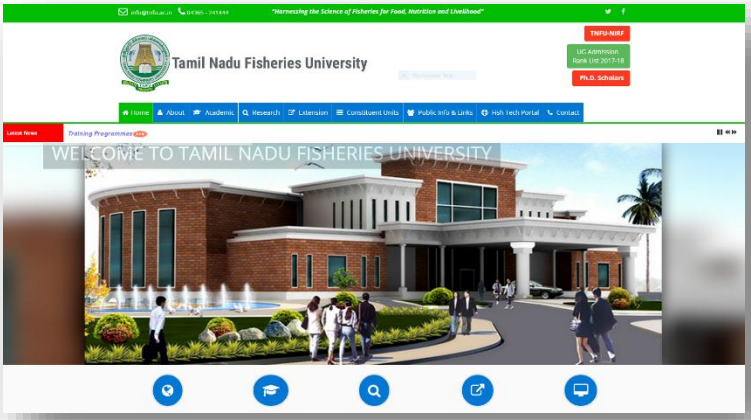
3. To create and maintain fisheries database & information systems and distribute through networks and websites.

4. To develop and distribute online and offline publications for fishing and fish farming communities.

5. To offer online Certificate and Diploma courses in fisheries.

DIGITAL INITIATIVES UNDERTAKEN

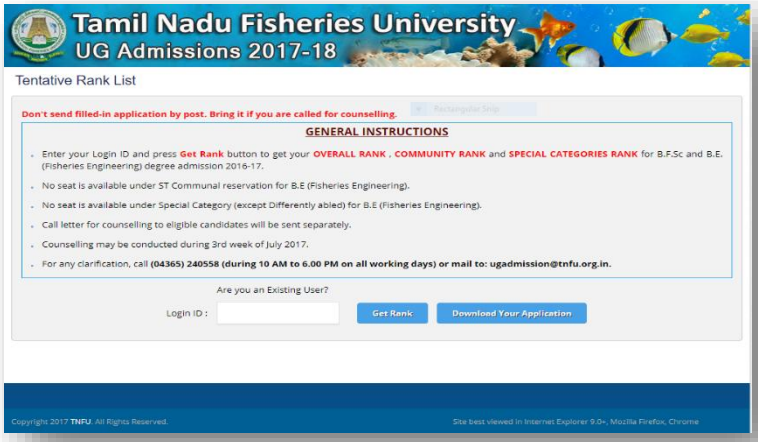
Creation of academic website of the university (www.tnfu.ac.in) with all the relevant information about the university and its constituent units. Various programmes and activities conducted by the university and its constituent units are being updated on the website within 24 hrs.



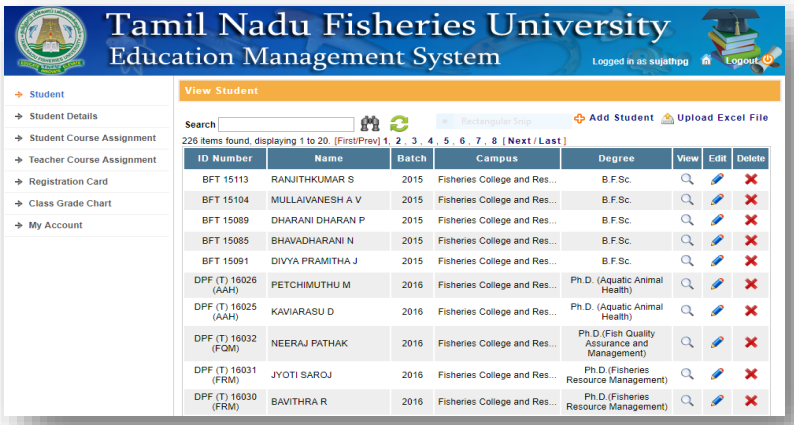
In addition to this, a FishTech Portal was created in the website in which various aquaculture technologies, preparation of value added fishery by-products, etc., are digitalised and available for use by the students as well as the public.



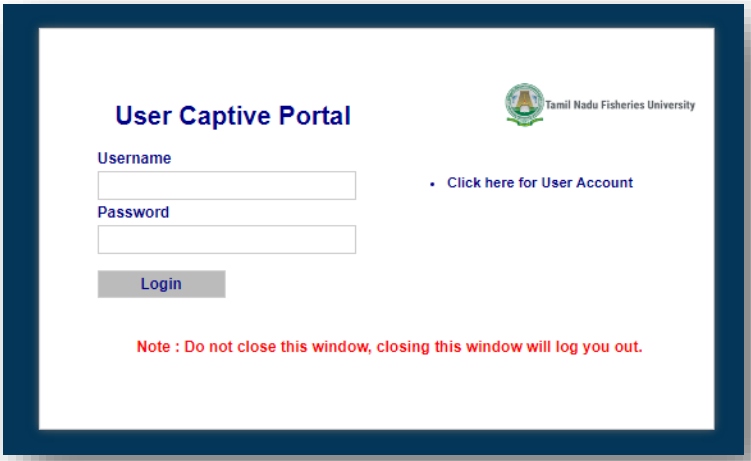
The admission of students for UG and PG programmes of this university is completely online. The students need not send their application, however, they should bring the downloaded application only at the time of counselling. The student could use their login ID (automatically generated at the time of filling the online application) to know their community as well as overall rank. This would considerably reduce the use of paper. Based on the rank, the provisional selection / admission letter is issued to the students on-the-spot during the counselling by using the concerned student login ID. The seats availability will also be displayed in the counselling venue and the students could select the campus of study for BFSc degree programme. The B.E. (Fisheries Engineering) is at present available only at Nagapattinam and therefore, the students have no choice. The online server is exclusively maintained by the university.



Another digital initiative is the online Education Management System (EMS) of the University. The EMS is the software platform in which the students themselves register their semester courses online during the beginning of the semester. All the students are given usernames and passwords for easy access of their accounts. With



the EMS, the students could down download the registration cards, examinations hall tickets, mark statements, etc. The EMS server is wholly maintained by the university.



The Fisheries College and Research Institute, Thoothukudi campus is having well equipped ICT facilities. The college campus and girls hostels (which is away from 3.5 KM from the college campus) are well connected by leased line internet connectivity. The college campus has LAN and secured Wi-Fi connectivity. The staff and students are given a username and password for accessing the internet portal and digital resources of the Library using 172.16.1.1 IP series. Each department has given separate IP series so that no IP conflict will happen ever. The Secured Wi-Fi facility is provided in the college campus, boy's and girl's hostels for 24X7. However, the internet usage can be monitored by the server admin of the college.

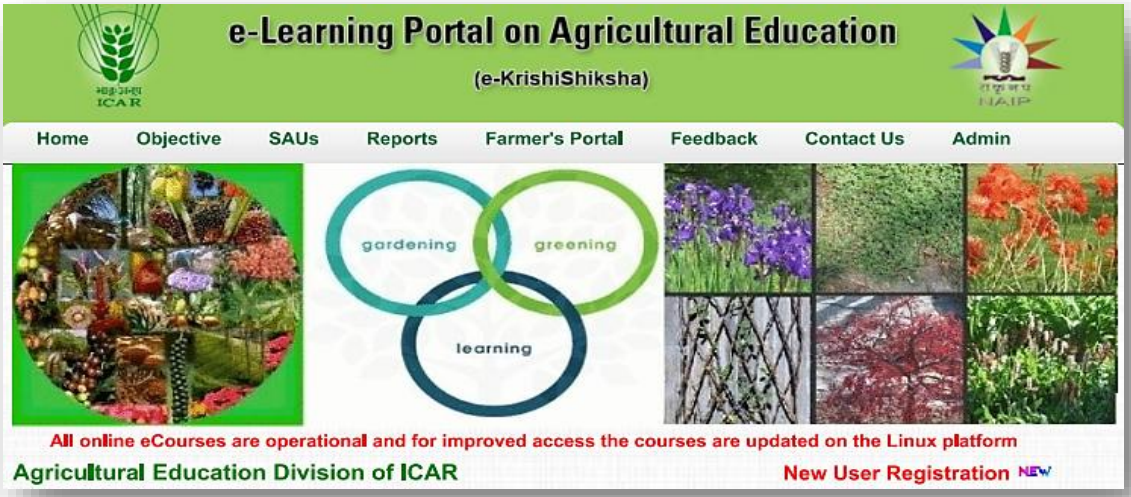
E-COURSE FOR BFSc DEGREE PROGRAMME

A total of 54 e-courses were created under the NAIP – ICAR project on development of e-courses for BFSc degree programme in collaboration with the College of Fisheries Mangalore. The following 27 e-courses were developed by the staff of the Fisheries College and Research Institute, Thoothukudi which are available online at www.elearnfish.net

Sl.No.	Name of the courses	Content Developers
1	Biology of Finfish and Shellfish	Dr. C.B.T. Rajagopalsamy & Dr. S. Benakappa
2	Ornamental Fish Production and Management	Dr.B.Ahilan & Dr.E.G.Jayaraj
3	Biochemical Techniques and Instrumentation	Dr.R.Jeya Shakila
4	Fundamentals of Microbiology	Dr. G. Sugumar & Dr. Indrani Karunasagar
5	Shellfish Breeding and Hatchery Management	Dr.J.Stephen Sampathkumar
6	Fisheries Economics	Dr. R.Jayaraman
7	Communication Skills	Dr.R.Santhakumar & Dr.V.G.Bhatt
8	Fisheries Extension Education	Dr. M. Nagoormeeran
9	Information and Communication Technology	Dr. N.V.Sujathkumar & Mrs.Kiran D souza
10	Rural Sociology	Dr.M.Nagoormeeran & Mrs.G.Arul Oli
11	Food Chemistry and Fish in Nutrition	Dr. G. Indira Jasmine & Mr. M.M.Maragal
12	Principles of Genetics and Breeding	Dr.K.Karal Marx
13	Freezing Technology	Dr. K. Rathnakumar & Mr. R.M. Prabhu
14	Principles of Aquaculture	Dr.A.Gopalakannan, Mr.K.S.Vijay Amritharaj & Dr.K.Ramesh
15	Fish Diseases and Management	Dr.K.Riji John
16	Biotechnology & Bioinformatics	Dr.K.Karal Marx & Dr.K.M.Shankar
17	Taxonomy of Finfish	Dr.P.Jawahar & Dr.H.N. Anjaneyappa
18	Inland Fisheries	Mr.N.Jayakumar
19	Physiology of Finfish and Shellfish	Dr.T.Francis & Dr.Mridula
20	Fish Population Dynamics and Stock Assessment	Dr. V.K.Venkataramani & Mr. N.Jayakumar
21	Oceanography	Mr.P.Chidambaram
22	Marine Biology	Dr.A.Srinivasan & Dr.A.T.Ramachandra Naik
23	Navigation and Seamanship	Dr.B.Sundaramoorthy
24	Disaster Management in Fisheries	Dr. N.V.Sujathkumar

25	Entrepreneurship Development and Communication skills	Dr.R.Senthiladeban, Dr.R. Santhakumar & Dr.K.Veerabhadran
26	Principles of Biochemistry	Dr.G.Indira Jasmine
27	Elementary Statistic	Mr.R.K.Ramkumar

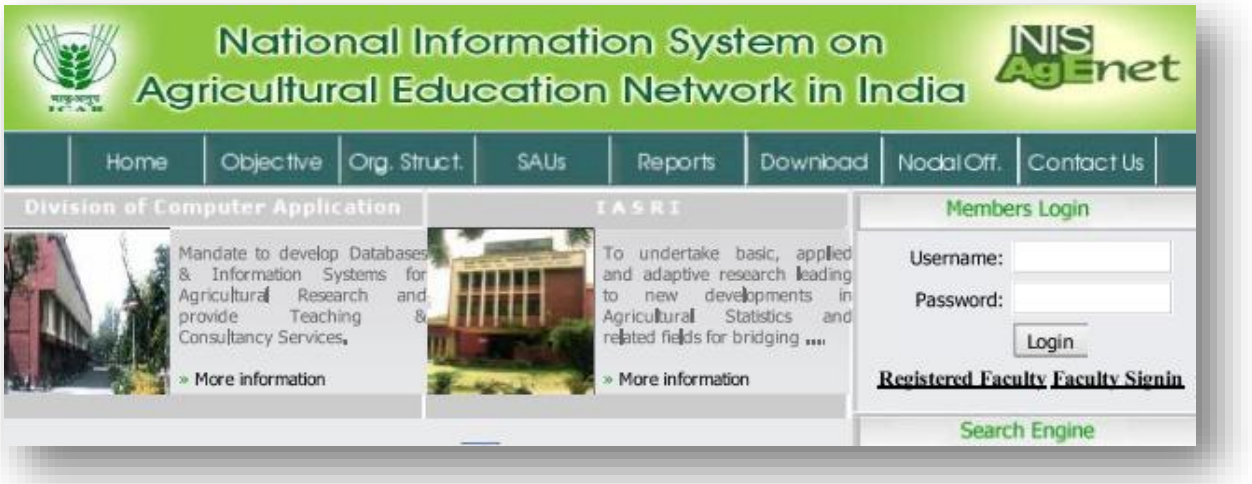




NATIONAL INFORMATION SYSTEM AGRICULTURAL EDUCATION NETWORK IN INDIA

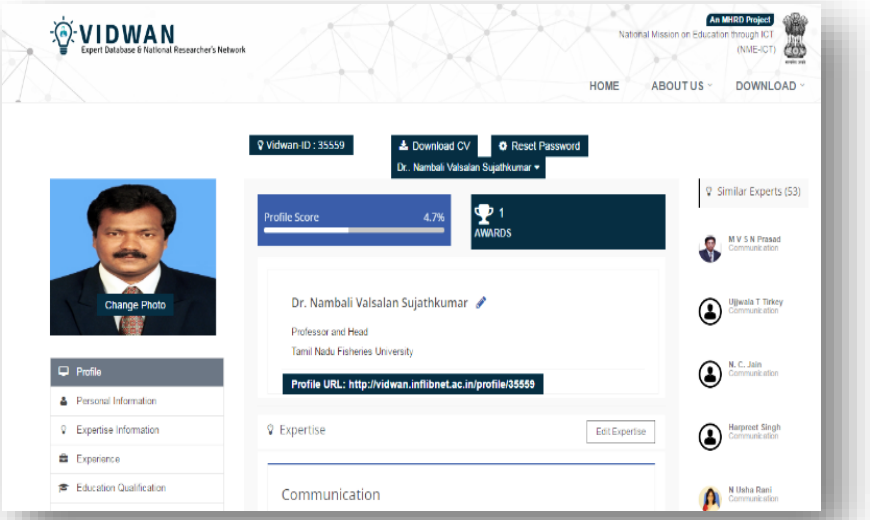
The infrastructure, budget, details of staff members, reports, etc., of the university and its constituent colleges / institutes are uploaded and also regularly updated in the National Information System Agricultural Education Network in India (**NISAGENET**),

ICAR, New Delhi so that the university information is available digitally to the students across India.



VIDWAN EXPERT DATABASE

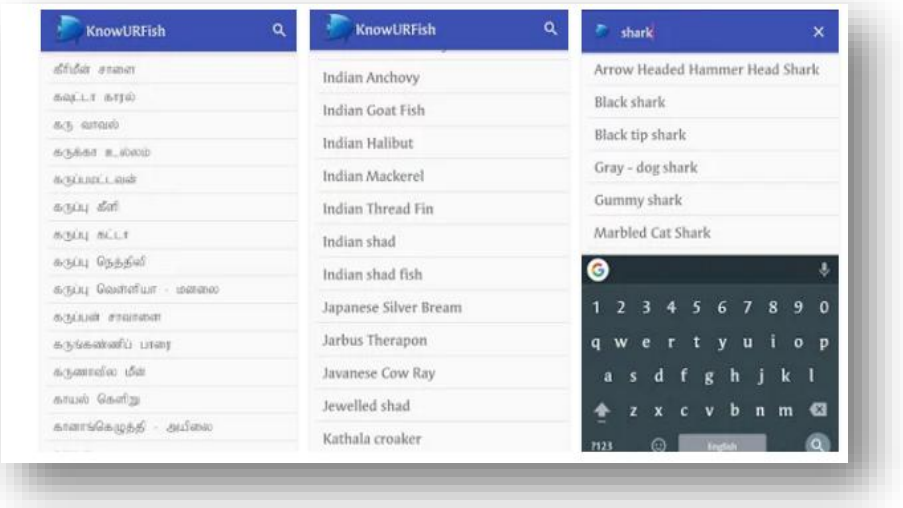
The biodata of TNFU teaching staff is being uploaded in the VIDWAN Expert Database & National Researcher's Network (National Mission on Education through ICT of Government of India), at



https://vidwan.inflibnet.ac.in/.

The Vidwan ID is required for submitting an external funded project.

KNOW URFISH ANDROID MOBILE APP



TNFU released "KnowURFish, a Mobile Android App, for the benefit of fisheries stakeholders which was developed by Centre for Fisheries Management, Planning and Policy, Chennai. This App gives information about the fishes available in Tamil Nadu coast with a web link to fishbase.org. Users can search for the names of fish both in English and Tamil. This App is available for free and can be download from the Google Play Store

AVAILABLE DIGITAL RESOURCES

i. Annual reports
ii. Audio CDs
iii. Conference and workshop reports / papers
iv. e-books
v. e-courses for BFSc degree programme
vi. e-databases
vii. e-journals
viii. e-reference source
ix. Extension reports
x. Faculty Publications
xi. Newsletters
xii. Meenvalakathir
xiii. Photographs
xiv. Research reports
xv. Video DVDs

DIGITALISATION OF LIBRARY RESOURCES

The library of the FC&RI, Thoothukudi is currently undertaking an ICAR funded programmes on Library Strengthening in Tamil Nadu Fisheries University under the Scheme of Strengthening and Development of Higher Agricultural Education in India for a sum of ₹ 66.00 lakhs. The digitization of M.F.Sc., and Ph.D., theses are being carried out and uploaded to KrishiKosh (ICAR Repositories) for access through online. Automation with KOHA (Integrated Library Management System (ILMS) is also installed in the Library. In addition to this, TNFU publications, staff publications, brochures, folders, etc., is being digitised and uploaded into the server available in the library. These digital resources can be accessed by students and staff using their internet captive portal password. The Consortium for e-Resources in Agriculture (CeRA) access is also provided over the internet captive portal.

DIGITAL LIBRARY SECURITY SYSTEM

To protect the digital resources of the library from various threats like computer virus, data loss, theft, etc., following security system is installed.

i. Anti-virus software
ii. RFID
iii. CCTV
iv. EM Security Gate



Security Gate

IMPACT OF THE LIBRARY

The library of Fisheries College and Research Institute, Thoothukudi support the students in their academic achievements and it is evidenced from the JRF position obtained by the students for their higher studies. The Indian Council of Agricultural Research (ICAR), New Delhi conducts AIEEA for admission to the Master degree program in Agriculture and allied sciences every year for 25% seats in Agriculture /Fisheries Universities. During this academic year (2015-16), a total of 13 students of Fisheries College and Research Institute, Thoothukudi have been qualified for the fellowship to pursue their Master of Fisheries Science degree programme which includes second rank in the All-India Entrance Examination (AIEEA-PG-2016) and first place in the reserved category at the All India level (ninth overall). The library is also fully supporting to staff for their digital way of teaching, research and extension programmes. The books, journals, periodicals, e-resources, etc., purchased in the library are being used for proposing schemes and projects in the areas of fisheries biotechnology, nutraceuticals, fish processing, aquaculture, fish genetics, fisheries engineering, fisheries extension, etc. In addition to this, many researchers from other universities and institutions are also regularly visiting the library for collection of digital references. The library is well equipped with computers to browse the e-journals and internet resources by the students and staff. The CCTV with DVR is available in the library for monitoring.

FUTURE DIGITAL INITIATIVES OF THE UNIVERSITY

E-THESIS SUBMISSION AND MANAGEMENT SYSTEM

An Electronic Thesis or E-thesis is simply the digital (electronic) representation of the student's thesis. Rather than printing the final thesis, the students will be able to convert the final version to a PDF file and submit that file. Every year, on the eve or on the day of the thesis submission deadline, the students face the hectic and most traumatic experience of their university time: Printing and binding two copies of their thesis for submission before the deadline. There are limited facilities around the campus for printing

and binding thesis in a few days. Despite all the planning that students make, many submit their hardcopy thesis reports on the last day and a few minutes before the deadline. Some students also miss the submission deadline, for various reasons, and are penalized by submitting the thesis either in extended semester or re-registering the semester.

The proposed solution for students is an E-thesis submission system that eliminates the hassle of hardcopy (printed & bound) submission. Students will be able to reduce or eliminate the costs of printing and binding. Using less paper implies saving valuable trees around us. The e-thesis management system enables the registry (a type of admin) of the faculty to automatically acknowledge receipt of the thesis submitted.

In due time, the Controller of Examinations is granted permission to access list of e-thesis submitted by their students on the system. Then, COE allocates an examiner to each thesis and the system notifies the examiner to proceed with e-thesis report assessment. By a given deadline, the examiner will submit their evaluation of the student's report on the system for further action.

ONLINE STUDENT ATTENDANCE MANAGEMENT SYSTEM

Manual control of attendance is time consuming and not effective. The online student attendance system is intended to produce an automated solution for attendance management. Using this online system, daily attendance of students in colleges can be easily managed. Also, teachers can manage the grade of each student in an efficient manner. This online system allows parents to track the progress of their children using the online facility.

The course teachers can manage attendance using computerized data management so that paperwork could be eliminated. Generate attendance reports any time which allows teachers to know a student is eligible to attend the exams or not.

Students as well as parents can track grades effortlessly and the students / parents could provide the reason for absence.

SMS- BASED FISHERIES INFORMATION SYSTEM

In this era, where everything is going digital, the need for rapid communication is necessary and in fact inevitable. However, ensuring the timely and reliable dissemination of the information, as it becomes available, to those concerned is also of prime importance. Because of the very high penetration of mobile phones in societies, particularly in fisheries societies, fisheries stakeholders can be reached anytime anywhere.

The SMS-based notification system aims to respond to the need of the university in terms of rapid notification to various stakeholders of important events using mobile technologies. The events needing notification might include things like training, seminar, conference details, weather warnings and other natural disaster warnings, exam date notification, results notification, urgent meeting notifications, etc.

FINANCE MANAGEMENT SYSTEM

The Financial Management System (FMS) is a key component of Systematics' integrated software, providing a flexible and fully automated financial accounting system. A critical management information is provided through responsibility centre reporting, budgeting and forecasting, chronological and statistical analysis, and cost allocation.

The Financial Management System is a flexible, user-oriented tool that includes analysis capabilities and provides complete statements of condition and income/expense reports, grouped and consolidated.

The system is a true management tool, as well as a centralized, comprehensive accounting system that includes budgeting, cost allocation and account reconciliation to

aid management in making decisions about the use and control of an organization's funds and hence everything can be digitally managed.

TNFU MOBILE APP FOR FISHERIES EDUCATION AND INFORMATION SYSTEM

At present, abundant data on fisheries are necessary for science-based decision making. Currently the information is needed about the inland, brackishwater, marine resources, its usage and policies. The mobile app for fisheries education and information system, which will be developed by this university for the students, researchers, fishermen, fish buyers, entrepreneurs and organizations would certainly help them to understand the issues in fisheries sustainability and management of fisheries resources for the future use and also to understand the current scenario of fisheries and how to sustain the protein rich cheaper food for future generations. The mobile application will be designed for various mobile platforms such as android, windows, apple, etc. A separate website or subdomain will be created in which various fisheries education and information system will be made available and a link will also be provided to download the mobile app freely. A Fisheries Knowledge Base (FKB) programme will also be designed in which students, researchers, scientists, fishermen, fisherwomen, aqua farmers, entrepreneur, etc., can register their names, mobile numbers, email IDs, etc., to get information on fisheries from the Fisheries Knowledge Base automatically.



Chettinad

Academy of Research & Education

(Deemed to be University Under Section 3 of the UGC Act 1956)



Chettinad Hospital & Research Institute

- Faculty of Medicine
- Faculty of Allied Health Sciences

Chettinad College of Nursing

- Faculty of Nursing

Educate → Enlighten → Empower

Digital Initiatives

- Chettinad Learning Management System an in-house developed program for effective delivery of learning content to all students from a centralized location which would be available online 24/7 anytime and anywhere.
- Administration of the university and hospital is made digital with use of PACS, Digital X ray and software usage of library, purchase, accounts, HR and building management systems with Autolib, SAGEACCPAC, Tally, ERP, Biometric attendance system, SMS communication system, biometric turnstile, restricted access, etc.
- Students and NSS volunteers of CARE played active role on digital payment in the community nearby (using the power point of MHRD VISAKA)
- We at CARE have been insisting and encouraging our students, patients and others to digitalise the financial transactions

Innovative methods for enhancing teaching-learning process

- Introduction of New Interdisciplinary and Innovative Courses in the Emerging Areas
- Value added programs – introduction of new programs like nanotechnology, tissue culture, etc in contemporary courses, IPR and Ethics, Health economics, Yoga & Complementary Medicine, Consumer protection act, Evidence-based medicine, Communication skills, Disaster Management Capacity Building, etc
- Student Mentorship – helps to inculcate the right attitude right from the beginning and aid the slow learners in their learning process to make them succeed.
- Smart Class rooms, Virtual / E learning
- Skills learning (Bed side, Skills lab & Simulation models, performance under supervision)
- Learning through community activities, Mime cum role play, street play, Mind mapping, Multi disciplinary integrated learning, Self directed & Problem-based learning, Small group discussion, Seminars, Quiz, Debates
- Research Projects, Industrial training, Field visits

Teaching - Learning & Evaluation





Human Resource



Inventory & Purchase

Innovations in improving the administration of institutions





Hospital Information system

Laboratory information system

Radiology imaging system (including PACS)













Website Periodic Updation

Finance

Building Management system

Developed/Customized by in-house IT department

Measures for promoting research

- Well defined thrust area for research
- Central research facility with high end equipments
- Promoting collaborative research of clinical and basic scientists
- Appointment of manpower with international exposure and training
- Appointment of visiting faculty to impart training in latest research techniques
- Fellowships for full time PhD and PDF scholars
- Seed money for faculty research
- E Journals, plagiarism check software, inhouse biostatistician
- Periodic review and guidance through IRB and Ethics committee
- Encouragement to faculty and students for quality research as evidenced by publications, patents and research grants
- University funding for patent filing and follow up

Major efforts at involving with the community for improving livelihoods

- Provide the under privileged rural population with cutting edge health technology towards preventive, palliative, curative and promotive health care.
- Make health care accessible to the rural population through regular camps not only in nearby areas but in remote areas too.
- Enable students to have a firsthand glimpse into the way of life of rural masses, and thus develop a holistic outlook on medical and nursing practice. These further inculcate spirit of oneness with the community and make them good citizens.
- Being on the highway and in the semi urban area, CARE offers Golden Hour Treatment at Emergency and Casualty Services and has been instrumental in saving several precious lives.
- CARE has been active in all the Government initiatives both at state and central levels like pulse polio, Blindness control programs, chief minister health program initiatives, etc.
- In addition CARE promotes first generation learners among woman, students from rural areas and underprivileged sectors

Swachh Bharat Abhiyaan

- CARE focuses on **development of socially responsible citizens** through active participation of students and faculty in community engagements through structured programs and activities like
  - Family health advisory program
  - Community oriented primary care
  - School health program (the right to sight initiative)
  - Health care provision to difficult access population groups
  - Community based student research activities
  - Community service through national service scheme
  - Adoption of villages
  - Periodic health related outreach programs and medical camps
- **NSS unit of CARE** integrates the community orientation among the students and staff.
  - NSS unit has adopted a nearby village (Thiruvadisulam). Students are actively involved in providing clean water, clean environment and health education and their role in good health.
  - Active participation of NSS unit of CARE is seen in their activities like Swach Bharat, Swachh Pakhwara, National Youth day, Ek Bharat sreshta Bharat, tree plantation, road safety, environmental friendly green initiatives, etc
- **Eco Friendly Green Campus** – Green Campus makes for a safer and healthier place to live and learn
  - Create environmental accountability and responsibility.
  - Use of renewable energy – through wind mill and Solar panels
  - Reduce energy consumption and conservation.
  - Better Water quality / use / conservation.
  - Improve air quality.
  - Safety and reduction in waste disposal.
  - Reduced carbon emission from the campus through various methods include from appropriate computer usage
  - Periodic Green Audit of the campus

Action taken on reducing the legal cases

- Periodic feedback Participatory governance through various committees (including grievance redressal committees) with stakeholder inclusions in these committees has enabled us to identify issues at early stage and take appropriate remedial action.

Plan of action for promoting quality of teaching

- Periodic faculty development programs enable to train and assess faculty in new teaching methodology.
- Feedback from students and peers further promote in improving quality

3 year Plan

- Introducing new Faculty – Dentistry, Pharmacy, Engineering, Arts & Science, Agriculture, Teacher Training (With approvals from statutory bodies)
- Use of Alumni as mentors
  - Alumni & student participation in curriculum design (BoS)
- Establishing MoU with International Institutions
- Faculty empowerment through faculty exchange programs
- Increase the number of publications in high quality & high impact journals
- High end grants for research from Indian funding agencies
- Formation of Taskforce for recognizing the commercial potentials of research output/products
- Enhance patient inflow, Increase patient satisfaction & Reduce patient waiting time
- Improve diagnostic services (eg. Molecular diagnostics, newer imaging devises)
- Effective use of technology in patient care & Enhancing Telemedicine
- Increasing Faculty & Student accommodation within campus

7 year Strategic Plan

- Introduction of new academic programs
  - Sports Medicine
  - Physical Medicine & Rehabilitation
  - Transfusion Medicine
  - Oncology
  - Emergency & Critical Care
  - Medical Sociology
- Student mobility through horizontal credit transfers with reputed institute in India and overseas which can complement the training with expertise of both the institutions
- Creating Centre of Excellence
  - Nanomedicine
  - Genomic medicine
  - Tissue engineering and regenerative Medicine
  - Big data analytics and Biomarker discovery
- International grants for research
- Promoting Entrepreneurial culture by devising knowledge transfer and commercialization strategy
- Developing incubation centers for technology transfer
- Independent Blocks / Buildings for each faculty
- Getting hospital accredited by Accreditation Agencies
- Complete adoption of 10 Villages

15 year Vision

- Increase visibility of CARE globally
- Development of Schools of Excellence
- Provide Healthcare at low cost by developing indigenous low cost prognostic and diagnostic tools and make them available throughout the country
- Harness patents into products and generate revenue for sustained viability


Chettinad University
THANK YOU

CHETTINAD ACADEMY OF RESEARCH AND EDUCATION

Best Practice implementation at CARE under the identified areas of UGC

a. **Digital Initiatives :** Information Technology is put to effective use at CARE. Reduced paper usage through usage of appropriate software and Information technology.

- Chettinad Learning Management System an in-house developed program for effective delivery of learning content to all students from a centralized location which would be available online 24/7 anytime and anywhere.
- Administration of the university and hospital is made digital with use of PACS, Digital X ray and software usage of library, purchase, accounts, HR and building management systems with Autolib, SAGEACCPAC, Tally, ERP, Biometric attendance system, SMS communication system, biometric turnstile, restricted access, etc.
- Students and NSS volunteers of CARE played active role on digital payment in the community nearby (using the power point of MHRD VISAKA)
- We at CARE have been insisting and encouraging our students, patients and others to digitalise the financial transactions. Eg. Fee remittance, Vendor payments, Salaries, Stipend, statutory remittances, etc

b. Innovative methods for enhancing teaching-learning process

- Introduction of New Interdisciplinary and Innovative Courses in the Emerging Areas
- Value added programs – introduction of new programs like nanotechnology, tissue culture, etc in contemporary courses, IPR and Ethics, Health economics, Yoga & Complementary Medicine, Consumer protection act, Evidence-based medicine, Communication skills, Disaster Management Capacity Building, etc
- Student Mentorship – helps to inculcate the right attitude right from the beginning and aid the slow learners in their learning process to make them succeed.
- Smart Class rooms, Virtual / E learning,
- Skills learning (Bed side, Skills lab & Simulation models, performance under supervision)
- Learning through community activities, Mime cum role play, street play, Mind mapping, Multi disciplinary integrated learning, Self directed & Problem-based learning, Small group discussion, Seminars, Quiz, Debates
- Research Projects, Industrial training, Field visits

c. Innovations in improving the administration of institutions

- Participatory governance: collaborative effort in administration to ensure that human resource, physical resource and financial planning are effective and integrated across institutional planning. This helps leadership, governance structures and decision-making processes effective and integrated across institutional functioning.

d. **Measures for promoting research**

- Well defined thrust area for research
- Central research facility with high end equipments
- Promoting collaborative research of clinical and basic scientists
- Appointment of manpower with international exposure and training
- Appointment of visiting faculty to impart training in latest research techniques
- Fellowships for full time PhD and PDF scholars & Seed money for faculty research
- E Journals, plagiarism check software, in-house biostatistician
- Periodic review and guidance through IRB and Ethics committee

- Encouragement to faculty and students for quality research as evidenced by publications, patents and research grants
- University funding for patent filing and follow up

e. Major efforts at involving with the community for improving livelihoods

- Provide the under privileged rural population with cutting edge health technology towards preventive, palliative, curative and promotive health care.
- Make health care accessible to the rural population through regular camps not only in nearby areas but in remote areas too.
- Enable students to have a firsthand glimpse into the way of life of rural masses, and thus develop a holistic outlook on medical and nursing practice. These further inculcate spirit of oneness with the community and make them good citizens.
- Being on the highway and in the semi urban area, CARE offers Golden Hour Treatment at Emergency and Casualty Services and has been instrumental in saving several precious lives.
- CARE has been active in all the Government initiatives both at state and central levels like pulse polio, Blindness control programs, chief minister health program initiatives, etc.
- In addition CARE promotes first generation learners among woman, students from rural areas and underprivileged sectors

f. Imparting digital education

- The Chettinad learning management system enables us to impart quality digital education. This also enables us to assess students through online examinations.
- The e journal, e books and digital library further promotes learning the current information at ease.

g. Swachh Bharat Abhiyaan

- CARE focuses on **development of socially responsible citizens** through active participation of students and faculty in community engagements through structured programs and activities like
    - Family health advisory program
    - Community oriented primary care
    - School health program (the right to sight initiative)
    - Health care provision to difficult access population groups
    - Community based student research activities
    - Community service through national service scheme
    - Adoption of villages
    - Periodic health related outreach programs and medical camps
- **NSS unit of CARE** integrates the community orientation among the students and staff.
    - NSS unit has adopted a nearby village (Thiruvadisulam). Students are actively involved in providing clean water, clean environment and health education and their role in good health.
    - Active participation of NSS unit of CARE is seen in their activities like Swach Bharat, Swachh Pakhwara, National Youth day, Ek Bharat Sreshta Bharat, tree plantation, road safety, environmental friendly green initiatives, etc

- **Eco Friendly Green Campus** – Green Campus makes for a safer and healthier place to live and learn
    - Create environmental accountability and responsibility.
    - Use of renewable energy – through wind mill and Solar panels
    - Reduce energy consumption and conservation.

- Better Water quality / use / conservation and improve air quality.
- Safety and reduction in waste disposal
- Reduced carbon emission from the campus through various methods include from appropriate computer usage
- Periodic Green Audit of the campus

h. Action taken on reducing the legal cases

- Periodic feedback Participatory governance through various committees (including grievance redressal committees) with stakeholder inclusions in these committees has enabled us to identify issues at early stage and take appropriate remedial action.

i. Plan of action for promoting quality of teaching

- Periodic faculty development programs enable to train and assess faculty in new teaching methodology.
- Feedback from students and peers further promote in improving quality

CHETTINAD ACADEMY OF RESEARCH AND EDUCATION

3 Year Plan of the University

- Introducing new Faculty – Dental, Pharmacy, Engineering, Arts & Science, Agriculture, Teacher Training (With approvals from statutory bodies)
- Use of Alumni as mentors
  - Alumni & student participation in curriculum design (BoS)
- Establishing MoU with International Institutions
- Faculty empowerment through faculty exchange programs
- Increase the number of publications in high quality & high impact journals
- High end grants for research from Indian funding agencies
- Formation of Taskforce for recognizing the commercial potentials of research output/products
- Enhance patient inflow, Increase patient satisfaction & Reduce patient waiting time
- Improve diagnostic services (eg. Molecular diagnostics, newer imaging devises)
- Effective use of technology in patient care and Enhancing Telemedicine
- Increasing Faculty & Student accommodation within campus

7 year Strategic Plan

- Introduction of new academic programs
  - Sports Medicine
  - Physical Medicine & Rehabilitation
  - Transfusion Medicine
  - Oncology
  - Emergency & Critical Care
  - Medical Sociology
- Student mobility through horizontal credit transfers with reputed institutes in India and overseas which can complement the training with expertise of both the institutions
- Creating Centre of Excellence
  - Nanomedicine
  - Genomic medicine
  - Tissue engineering and regenerative Medicine
  - Big data analytics and Biomarker discovery
- International grants for research
- Promoting Entrepreneurial culture by devising knowledge transfer and commercialization Developing incubation centers for technology transfer
- Independent Blocks / Buildings for each faculty
- Getting hospital accredited by Accreditation Agencies
- Complete adoption of 10 Villages

15 years Vision

- Increase visibility of CARE globally Development of Schools of Excellence
- Provide Healthcare at low cost by developing indigenous low cost prognostic and diagnostic tools and make them available throughout the country
- Harness patents into products and generate revenue for sustained viability

JAIN UNIVERSITY

Declared as Deemed-to-be University u/s 3 of the UGC Act 1956

Best Practices @ JU

Dr. N. Sundararajan
Vice-Chancellor
Jain University

Brief History

- SBM Jain College (SBMJC) established in 1990, affiliated to Bangalore University.
- Acclaimed as a trend setter in high quality, student centric education.
- SBM Jain Engineering College was established in 2005 affiliated to VTU.
- SBMJC was declared as a Deemed-to-be-University by MHRD, Govt. of India u/s 3 of the UGC Act in December, 2008 (UGC Review Committee acknowledged that the Institute had all the potential, academic excellence and financial viability to maintain and sustain itself as a deemed university)

Vision

To **foster** Human Development through Excellence in **Quality Education**, **Research** and **Entrepreneurial Development**

Mission

- **To provide quality education**, creating Human Assets and intellectual capital.
- **To enhance research and development** in different disciplines.
- **To develop a new generation of entrepreneurs** who will be instrumental in fueling economic growth.
- **To create able Leaders, Managers and Technocrats.**
- **To foster an ethical environment** in which both spirit and skill will thrive based on human values, to enrich the quality of life.

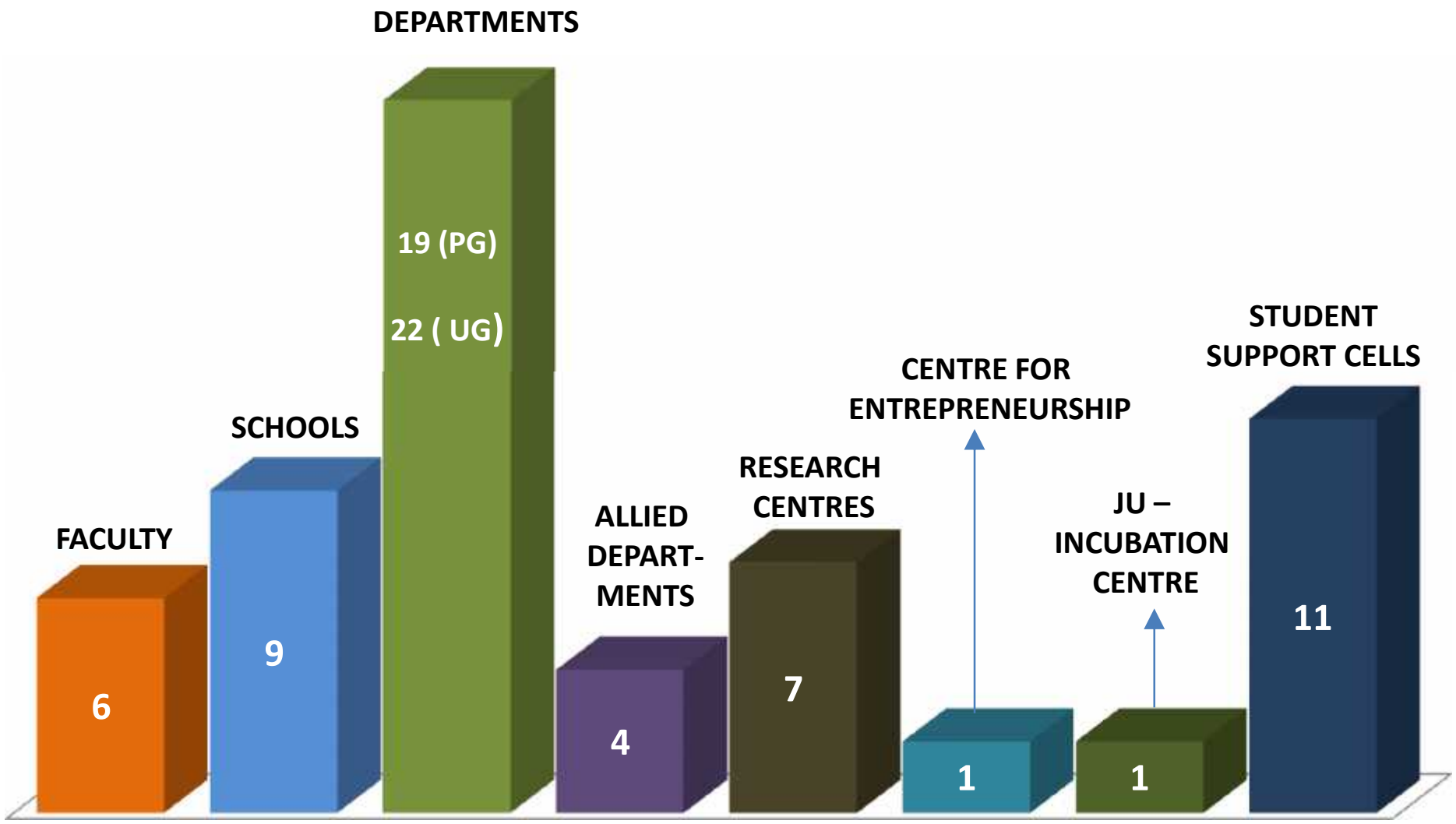
Core Values

- Ethics and integrity
- Imbibing Scientific temper
- Environmental Consciousness & Sustainable Development
- Promotion of Indian culture & heritage
- Active Citizenry
- Service to Society and Contribution towards National Development

Quality Policy

To **Develop** and **Deliver** academic programmes in **Emerging** and **Innovative** areas relevant to **Societal** needs; to empower students and other stakeholders with **Knowledge**, **Skills** and **Attitudes** needed to excel as **Professionals** and **Entrepreneurs**; to build in students active **Citizenry** with **High Ethical Standards**; to undertake **Research** and **Development** in identified thrust areas of **National Importance**; to focus on high level **Sports** achievements and to sustain and stimulate intellectual dialogue in areas impacting **Humankind**.

Profile of Jain University



JAIN UNIVERSITY

Digital Initiatives

- Online Admissions powered by Oracle CRM
- Online Assessment for some of the CBCS and Value Enhancing courses
- Any-time Any-where learning through LMS, E – Content & MOOCs (JUx)
- 283 lectures have been digitized and made available to students through TEL
- VM Ware lab (for training in virtualization), Amazon Web Services & MATLAB.
- Fully automated library
- Access to 97999 E-journals besides online databases
- 9273 CDs, 5841 e-books
- NPTEL videos accessible to students
- Institutional membership with Delnet, InflibNet.
- Plagiarism check for Ph.D and M.Phil through “Turnitin.com”

IT Infrastructure

- Broadband and WiFi connectivity in all the campuses under NMICT
- LCD facilities in all the classrooms.
- Software for the analysis of the Students' feedback developed in-house
- ERP software for the student life cycle developed in-house
- Digital payment gateway through SBI and PoS machines
- University has a dynamic website which is maintained and updated regularly by a specialist in-house team
- Campus libraries interlinked with KOHA open source software

IT Infrastructure

VMware Lab (For Virtualization)



42 Licensed Software

Recording Studio

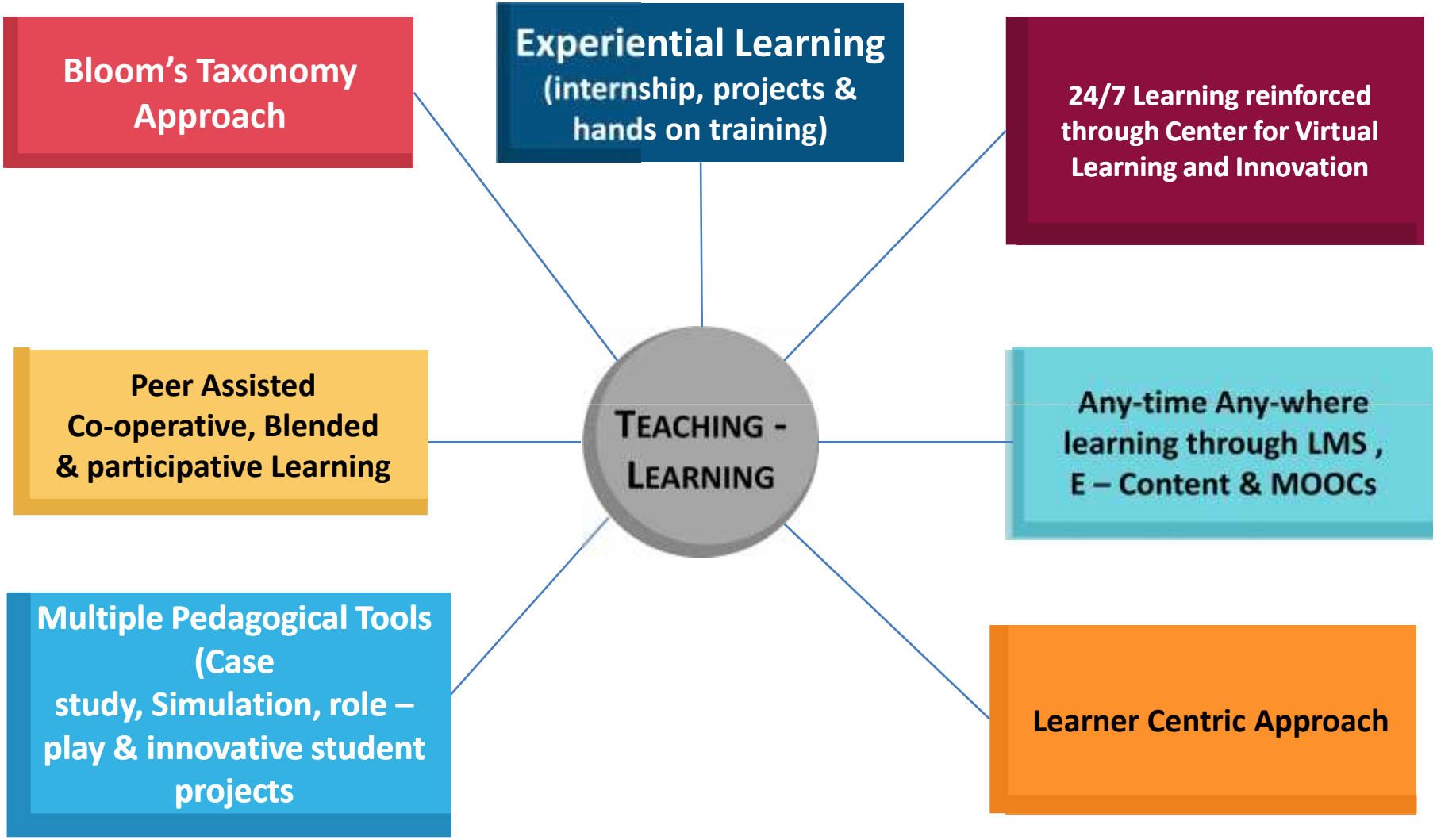


There are 2175 Computer terminals that can be accessed across campuses

Broad band and Wi-fi connectivity in all campuses

ERP software solution developed in-house

Teaching - Learning Process



Innovations in Administration

- All the Statutory bodies of the University are constituted as per UGC guidelines. They provide required direction to achieve excellence
- Decentralization of administration through Deans and Directors of Schools and Centers. Moving towards paperless administration.
- Management has initiated the setting up of Centers of Excellence
- SWOT analysis by the Standing Committee and Board of Management for further development of the University
- HR policy and practices designed and implemented
- Academic and Administrative Audit conducted periodically

Promotion of Research

- 7 Dedicated Research Centres established in key thrust areas
- Collaborations with leading research organisations
- Research Conclave and Research Retreat held regularly.
- Seed Money to Faculty for initiating research work
- Mentoring young researchers
- Inter-disciplinary research, sabbatical, participation in International/National Conferences encouraged

Involvement with the Community

Initiatives :

- **Monument Preservation Camp, Adopted 5 villages, Swach Bharath Abhiyan, Mega Eye Camp, Tree Plantation, Blood Donation camps etc.,**
- **Community Radio Station of Jain University is a part of social outreach activity and awareness in issues concerning health, waste management, environment, social awareness, gender issues are created.**
- **School education to children from rural areas and police personnel**
- **Linkages with foundations like Janagraha and White Swan for community development.**

Involvement with the Community



Community Radio Station

Kalarava – Counseling, Psychological Assessment & Play Therapy Centre open to the general public & trains the Postgraduate students in practical psychological assessment & counseling skills



Solid Waste Management - collection, segregation, recycle and disposal in a safe manner.

Best Practices

- Annual Research Retreat organised
- Active Business Incubation and ED cell
- Short Silent Educational and Theme based films and documentaries produced
- Community engagement through the Community Radio
- Development of case studies of Incubated companies by MBA students

Vision 2020

- To be an Academic Innovation driven University
- Being a University committed to Research and Development
- Being a University driven by shared Social and Economic goals which have an impact on the Society
- Being a University fostering Entrepreneurship
- Being an expanding University committed to Environmental Sustainability
- Being a University engaged with diverse communities



JAIN UNIVERSITY

Declared as Deemed-to-be University u/s 3 of the UGC Act 1956

Thank You

DIGITAL INITIATIVES FOR HIGHER EDUCATION

It may be mentioned that Jain University was accorded the status of a Deemed-to-be-University by the MHRD in December 2008 under Section 3 of the UGC Act, 1956. The Academic programmes of the University commenced in July 2009 and the research programmes in 2010. The University is functioning through 6 faculties, 9 schools, 19 PG and 22 UG departments and 7 dedicated research centres.

An overview of the innovations/best practices is provided below for your kind perusal:

Digital Initiatives: The University has been making extensive use of digital platforms in all aspects of its functioning, i.e., admissions, library management, Teaching-Learning process, examination, evaluation and general administration.

Teaching-learning Process: Various innovative approaches are used in the teaching-learning process, which includes "Any-time Any-where" learning through LMS, E-Content and MOOCs; Peer Assisted, Cooperative, Blended and Participative learning and the like. The University has established a Centre for Virtual Learning and Innovation, through which lectures are digitized and made available to students on a 24/7 basis.

University Administration: The University is rapidly moving towards paperless administration. The process of decentralization through empowerment of Deans and Directors of Schools and Research Centres has been completed.

Promotion of Research: The University is making conscious efforts to galvanize research by creating 7 dedicated research centresin thrust areas of national importance and by providing active support to faculty and scholars undertaking research. The research centres are: Centre for Emerging Technologies, Centre for Nano and material Sciences, Centre for Ancient History and Culture, Centre for Fire and Combustion Research, Centre for Disaster Mitigation, Centre for Research in Social Science and Education and Centre for Research in Aerospace Engineering.A state- of- the- art Fire and Combustion Research Centre with support from Underwriters Lab, USA is one of its kind in Asia.

Involvement with Community: Jain University strongly believes in connecting and engaging with the community. A host of programmes and events have been undertaken such as, adoption of villages and Swach Bharat Abhiyan, which have created significant impact. A unique initiative is a Community Radio Station of the University which creates awareness on health, waste management, environment, gender issues and so on.

Best Practices: The University has several best practices such as an active Business Incubation and Entrepreneurship Development cell. The Research Retreat and Research Conclave are much awaited annual events for research scholars from all disciplines.

More details are contained in the attached power point presentation.

Digital Initiatives
@
Symbiosis International University

Presentation by: Dr. Rajani Gupte
Vice Chancellor, Symbiosis International University



"Status now is not whether you are awake or asleep, it is whether you are online or offline"

Shri NARENDRA MODI

STUDENT PORTAL : LEVERAGING TECHNOLOGY

All activities during the student life- cycle are tech-enabled

- **Admissions** - Application, Fees payment. Fees refund
- **Eligibility** – Students upload documents, Admin Officer verifies and confirms eligibility- entirely **Paperless**
- **Administration** – Attendance, Feedback, Communication
- **Examination –** Online exam form, online Results, applying for revaluation, applying for Convocation, applying for Verification and transcripts

Admissions

- ✓ Registration for programs
- ✓ Declaration of Results
- ✓ Shortlisting GE- PIWAT
- ✓ Final Merit List
- ✓ Offer Letter
- ✓ Fee Payments
- ✓ Refund
- ✓ Eligibility

Academics

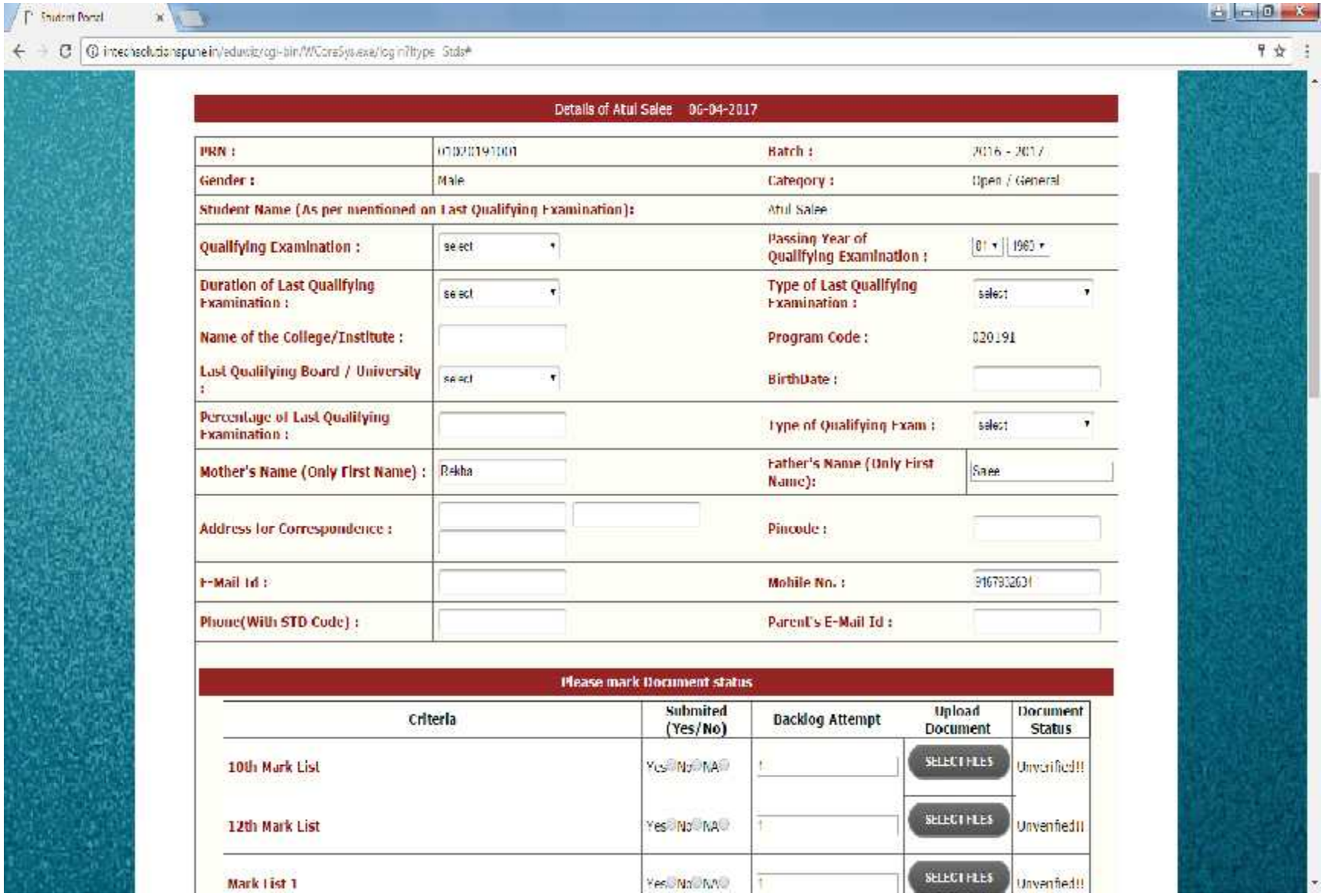
- ✓ Course Catalogue
- ✓ Selection of Electives
- ✓ Online Courses
- ✓ Attendance
- ✓ Time Table
- ✓ Faculty Feedback

Examinations

EduWiz integrated examination and student management software

- ✓ Exam Time table
- ✓ Examination Form
- ✓ Generation of Admit Card
- ✓ Declaration of Results
- ✓ Revaluation Form
- ✓ Marks Verification
- ✓ Convocation registration
- ✓ Claim Processing

ELIGIBILITY FORM



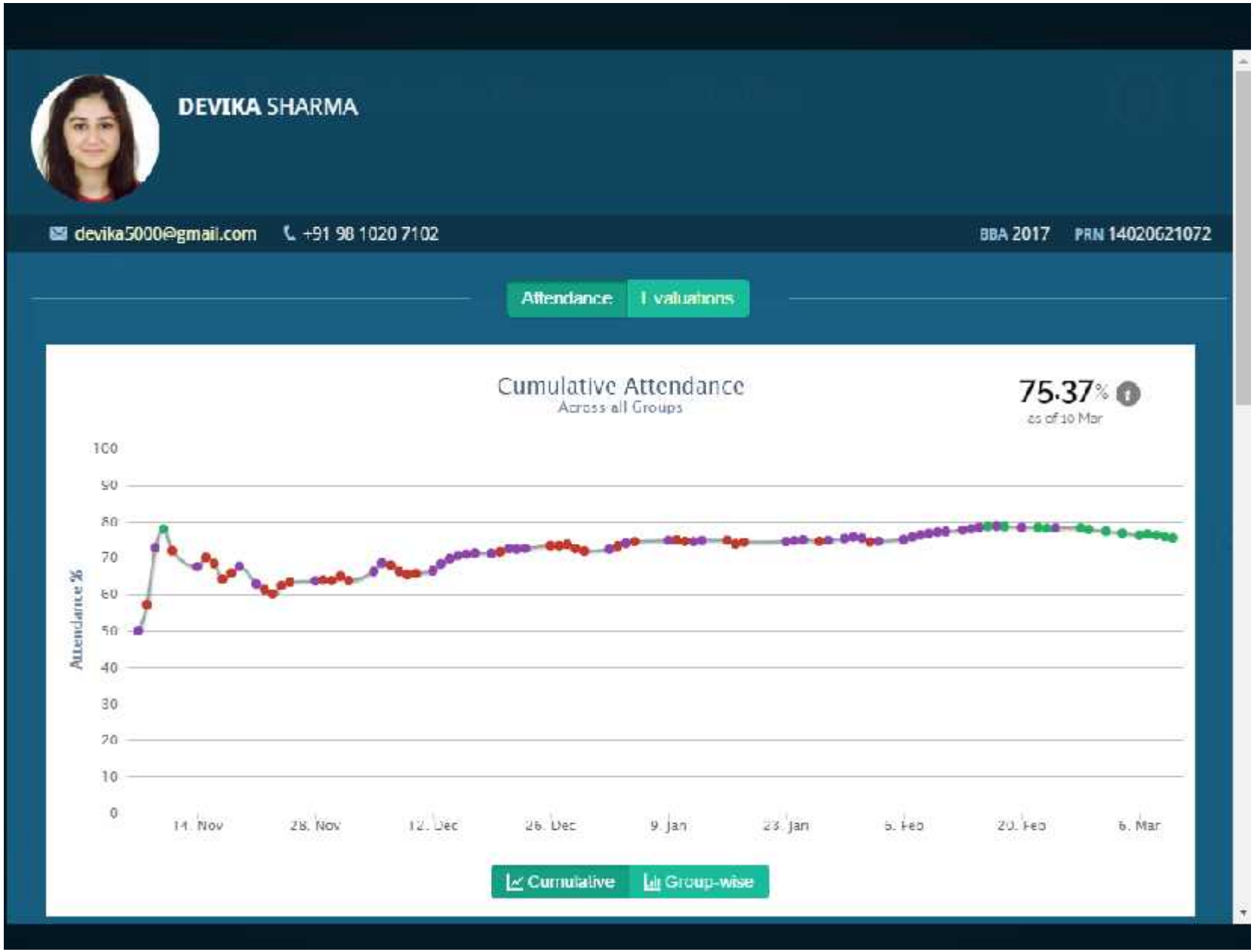
Details of Atul Salee 06-04-2017

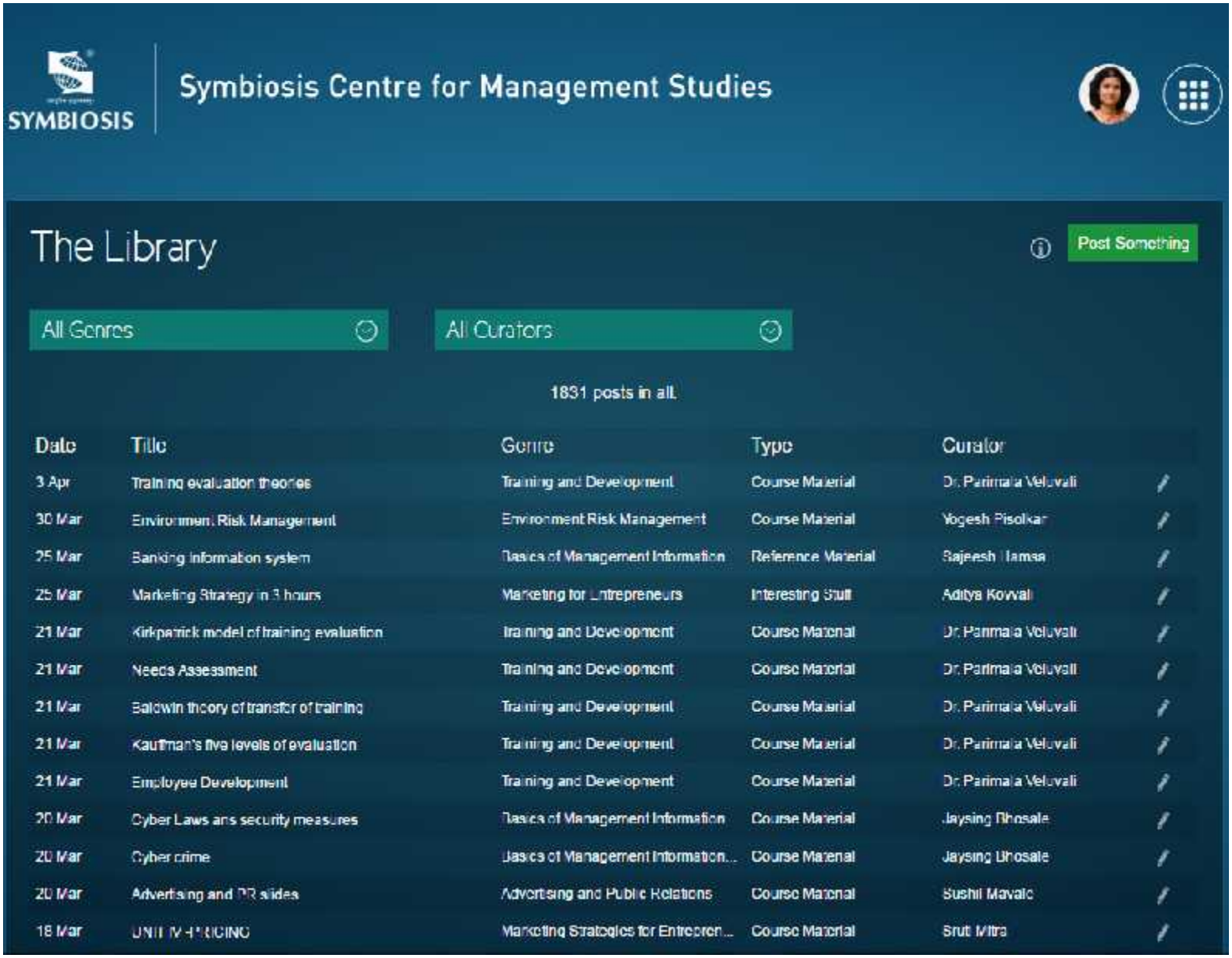
PRN :	[illegible]	Batch :	2016 - 2017
Gender :	Male	Category :	Open / General
Student Name (As per mentioned on Last Qualifying Examination):		Atul Salee	
Qualifying Examination :	select	Passing Year of Qualifying Examination :	01 1983
Duration of Last Qualifying Examination :	select	Type of Last Qualifying Examination :	select
Name of the College/Institute :		Program Code :	020191
Last Qualifying Board / University :	select	BirthDate :	
Percentage of Last Qualifying Examination :		Type of Qualifying Exam :	select
Mother's Name (Only First Name) :	Rekha	Father's Name (Only First Name):	Salee
Address for Correspondence :		Pincode :	
E-Mail Id :		Mobile No. :	9167932631
Phone(With STD Code) :		Parent's E-Mail Id :	

Please mark Document status

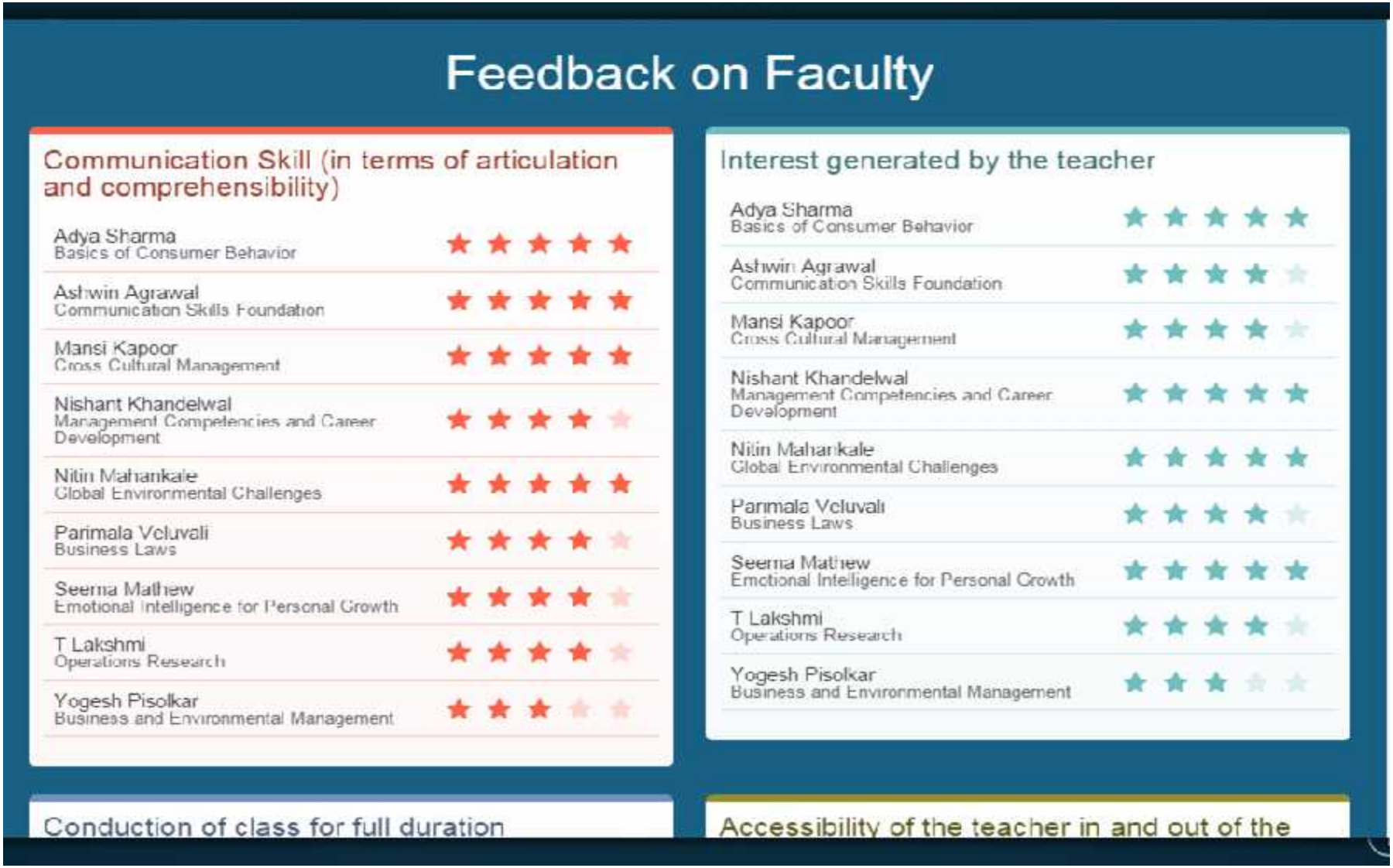
Criteria	Submited (Yes/No)	Backlog Attempt	Upload Document	Document Status
10th Mark List	Yes No NA		SELECT FILES	Unverified!!
12th Mark List	Yes No NA		SELECT FILES	Unverified!!
Mark List 1	Yes No NA		SELECT FILES	Unverified!!

ATTENDANCE MONITORING

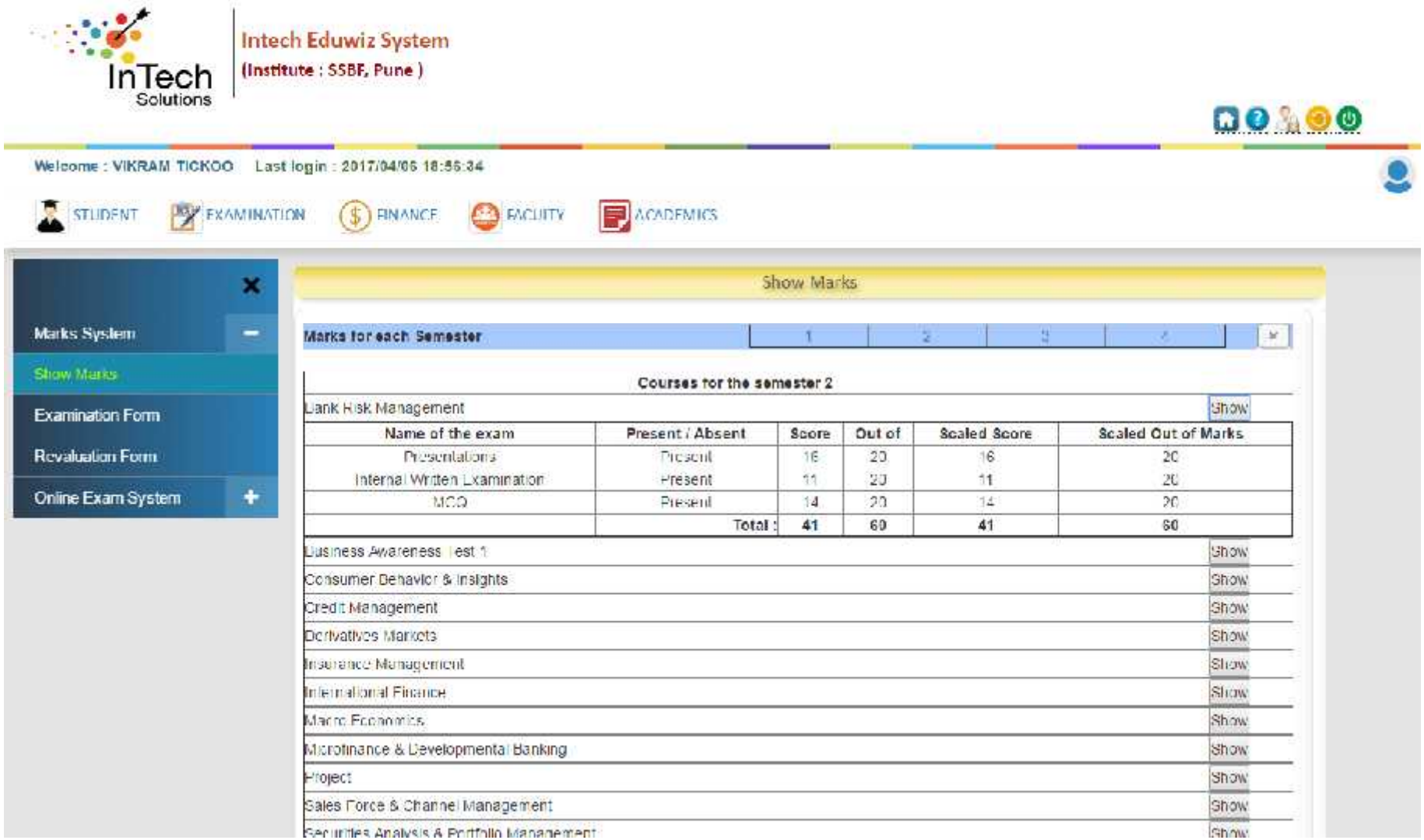



SYMBIOSIS
Symbiosis Centre for Management Studies
The Library
Post Something
All Genres
All Curators
1831 posts in all
Date
Title
Genre
Type
Curator
3 Apr
Training evaluation theories
Training and Development
Course Material
Dr. Parimala Veluvali
30 Mar
Environmen. Risk Management
Environment Risk Management
Course Material
Yogesh Pisolkar
25 Mar
Banking information system
Basics of Management Information
Reference Material
Sajeesh Ilamsa
25 Mar
Marketing Strategy in 3 hours
Marketing for Entrepreneurs
Interesting Stuff
Aditya Kovvali
21 Mar
Kirkpatrick model of training evaluation
Training and Development
Course Material
Dr. Parimala Veluvali
21 Mar
Needs Assessment
Training and Development
Course Material
Dr. Parimala Veluvali
21 Mar
Baldwin theory of transfer of training
Training and Development
Course Material
Dr. Parimala Veluvali
21 Mar
Kaufman's five levels of evaluation
Training and Development
Course Material
Dr. Parimala Veluvali
21 Mar
Employee Development
Training and Development
Course Material
Dr. Parimala Veluvali
20 Mar
Cyber Laws ans security measures
Basics of Management Information
Course Material
Jaysing Bhosale
20 Mar
Cyber crime
Basics of Management Information...
Course Material
Jaysing Bhosale
20 Mar
Advertising and PR slides
Advertising and Public Relations
Course Material
Sushil Mavale
18 Mar
UNIT IV PRICING
Marketing Strategies for Entrepren...
Course Material
Srut Mitra

FEEDBACK MECHANISM



STUDENT VIEW : TRACKING PERFORMANCE IN CONTINUOUS EVALUATION



ON LINE EXAMINATION SYSTEM (MCQ)

Change Password

Welcome : VIKRAM TICKOO
Last login : 2017/03/29 09:39:30

PLEASE NOTE THAT THE ANSWERS ARE AVAILABLE TO SEE ONLY FOR 24 HOURS FROM THE COMPLETION OF THE TEST.

Test Name	Test Date	Test Score	Test Details
MCQ Online Test	19/09/2016 12:17:01	14	View Exam
FM ONLINE EXAM	27/09/2016 09:38:41	12	View Exam
TMI-MCQ-On line	27/09/2016 10:44:01	14	View Exam
BO Online Test	27/09/2016 11:41:26	11	View Exam
Dr. Manisha K. Mgmt Acting	27/09/2016 12:32:10	5	View Exam
ME Online Exam	28/09/2016 09:31:13	7	View Exam
FA Online Exam	28/09/2016 10:09:11	8	View Exam
FAB ONLINE EXAM	28/09/2016 10:45:34	27	View Exam
OB Online Test	28/09/2016 11:44:32	17	View Exam
Online Test Service Marketing	29/09/2016 09:28:24	10	View Exam
MCQ Test (RM, Anlayst and AMC) 28 Feb 2017	28/02/2017 16:19:10	19	
MCQ Test for CM (02-03-2017)	02/03/2017 09:20:05	9	
MCQ Test for IF (02-03-2017)	02/03/2017 09:43:05	7	
MCQ Test for CB&I (03-03-2017)	03/03/2017 09:26:17	8	
MCQ Test SAPM 03 March 2017	03/03/2017 09:41:35	0	
MCQ Test for BRM (04-03-2017)	04/03/2017 09:26:02	14	
MCQ Test for IM (04-03-2017)	04/03/2017 09:58:40	16	
MCQ Test for MF (06-03-2017)	06/03/2017 09:33:40	7	
MCQ Test for MT&DB (06-03-2017)	06/03/2017 10:02:23	14	
MCQ Test for Project (AXIS BM) 06-03-2017	06/03/2017 11:32:46	9	
MCQ Test for OM (07-03-2017)	07/03/2017 09:30:33	15	
MCQ Test for SP&CM (07-03-2017)	07/03/2017 10:04:15	12	

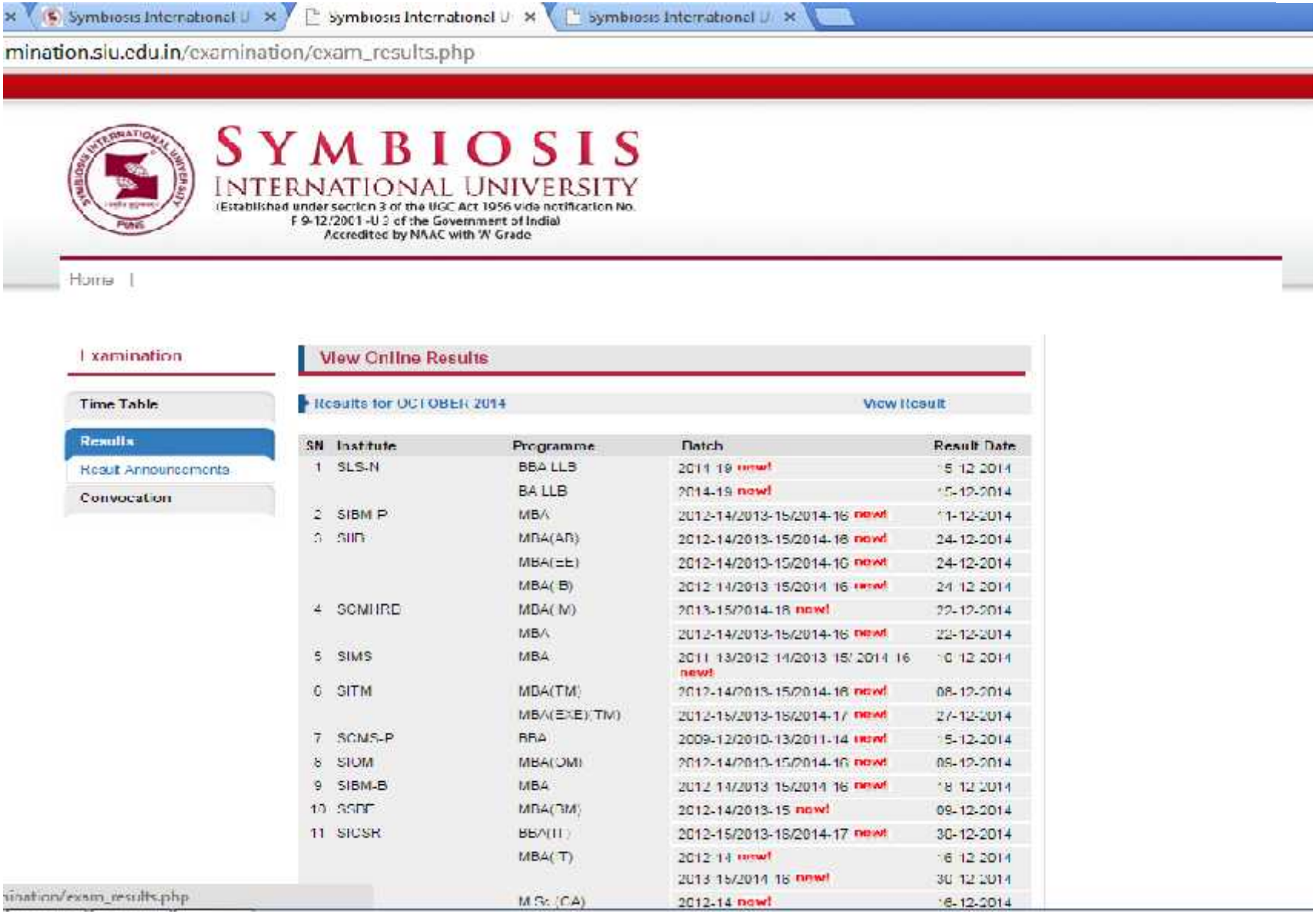
Eligibility Pending Documents:

Please contact to your Institute with documents !!

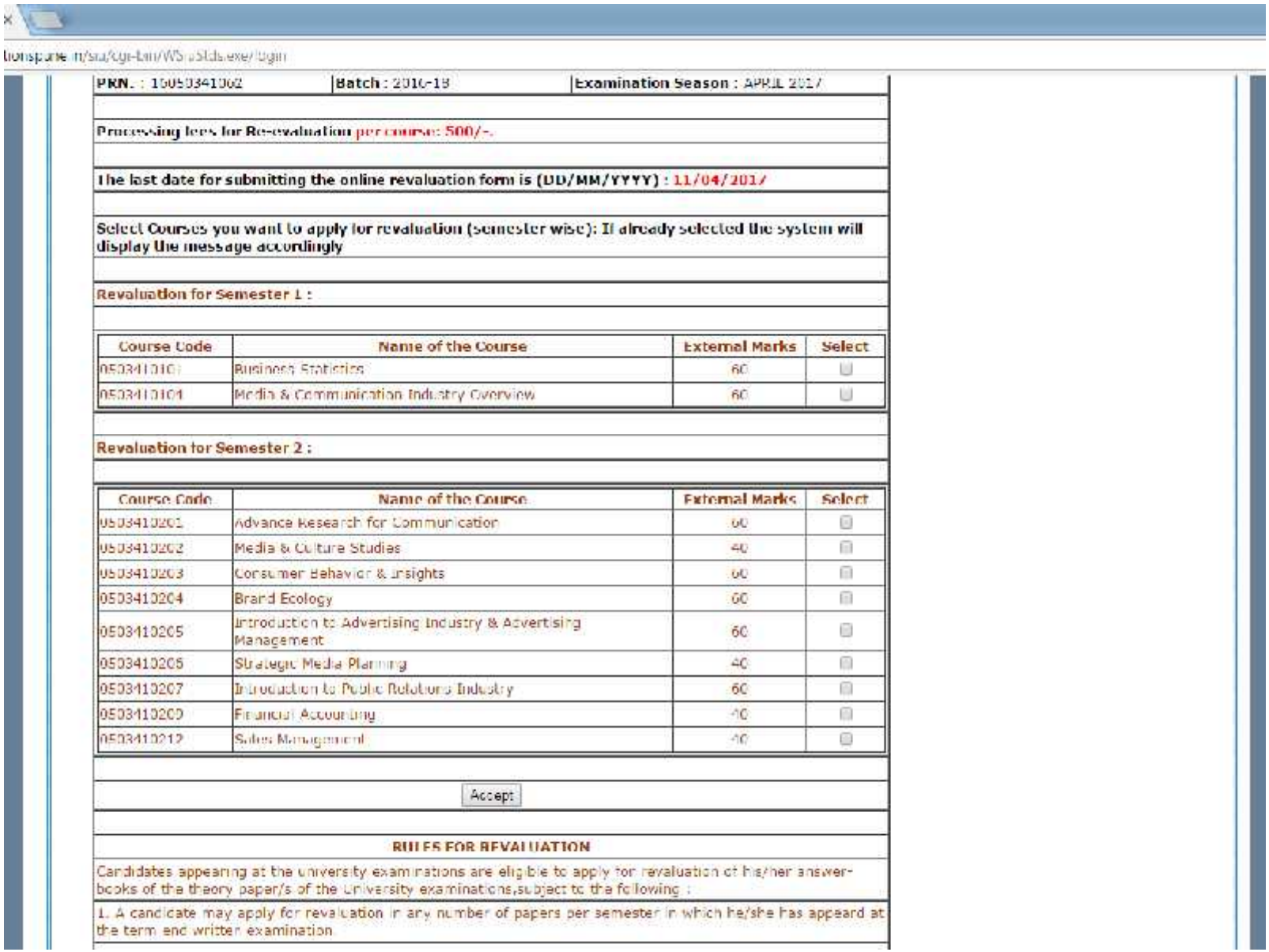
DISPLAYING EXAM TIME TABLE ON WEBSITE



DISPLAY OF EXAMINATION RESULTS ONLINE



APPLICATION FOR REVALUATION



PRN. : 16050341062 | Batch : 2016-19 | Examination Season : APRIL 2017

Processing fees for Re-evaluation per course: 500/-.

The last date for submitting the online revaluation form is (DD/MM/YYYY) : 11/04/2017

Select Courses you want to apply for revaluation (semester wise): If already selected the system will display the message accordingly

Revaluation for Semester 1 :

Course Code	Name of the Course	External Marks	Select
0503410101	Business Statistics	60	☐
0503410104	Media & Communication Industry Overview	60	☐

Revaluation for Semester 2 :

Course Code	Name of the Course	External Marks	Select
0503410201	Advance Research for Communication	60	☐
0503410202	Media & Culture Studies	40	☐
0503410203	Consumer Behavior & Insights	60	☐
0503410204	Brand Ecology	60	☐
0503410205	Introduction to Advertising Industry & Advertising Management	60	☐
0503410206	Strategic Media Planning	40	☐
0503410207	Introduction to Public Relations Industry	60	☐
0503410209	Financial Accounting	40	☐
0503410212	Sales Management	40	☐

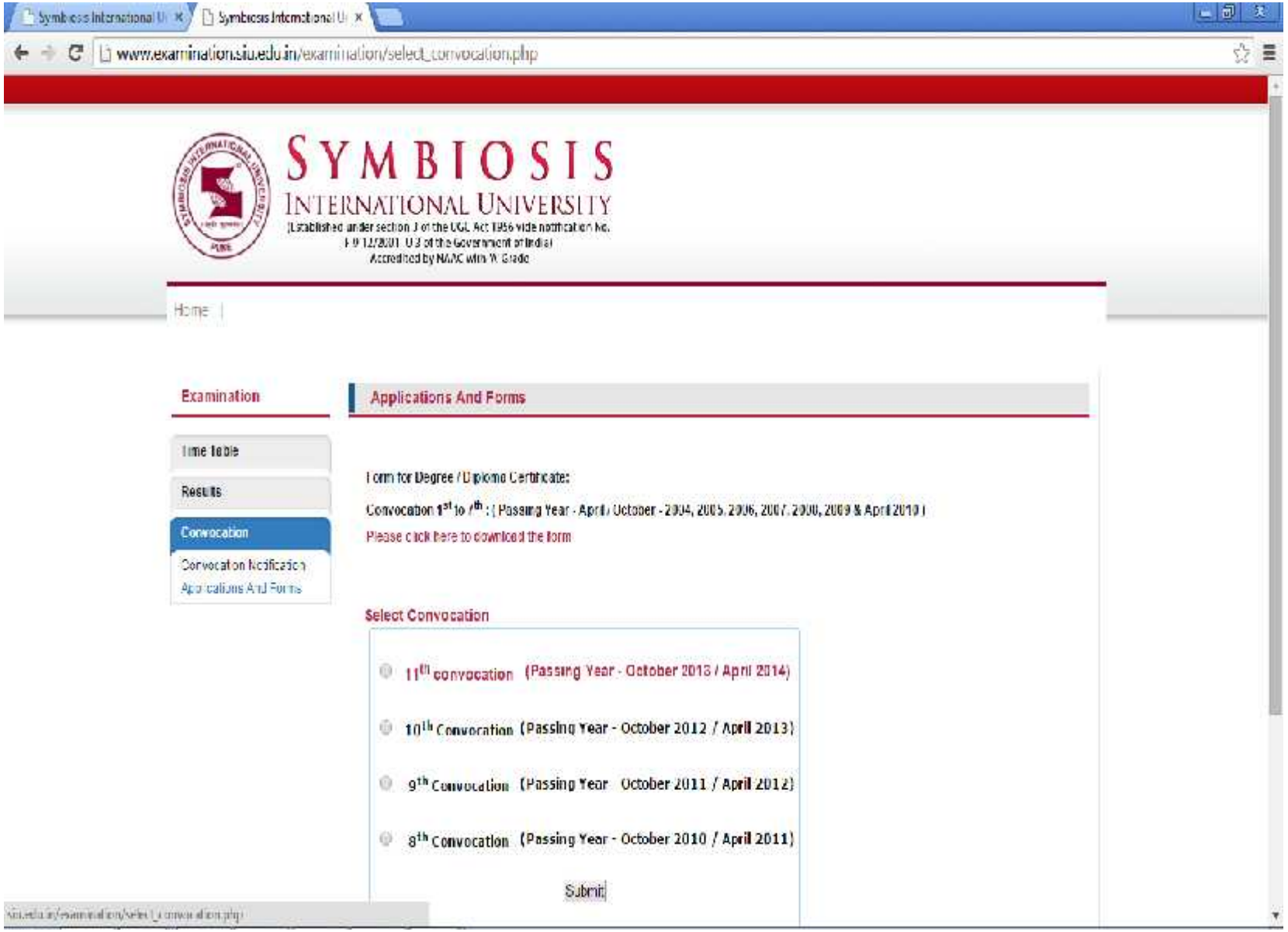
Accept

RULES FOR REVALUATION

Candidates appearing at the university examinations are eligible to apply for revaluation of his/her answer-books of the theory paper/s of the University examinations,subject to the following :

1. A candidate may apply for revaluation in any number of papers per semester in which he/she has appeard at the term end written examination

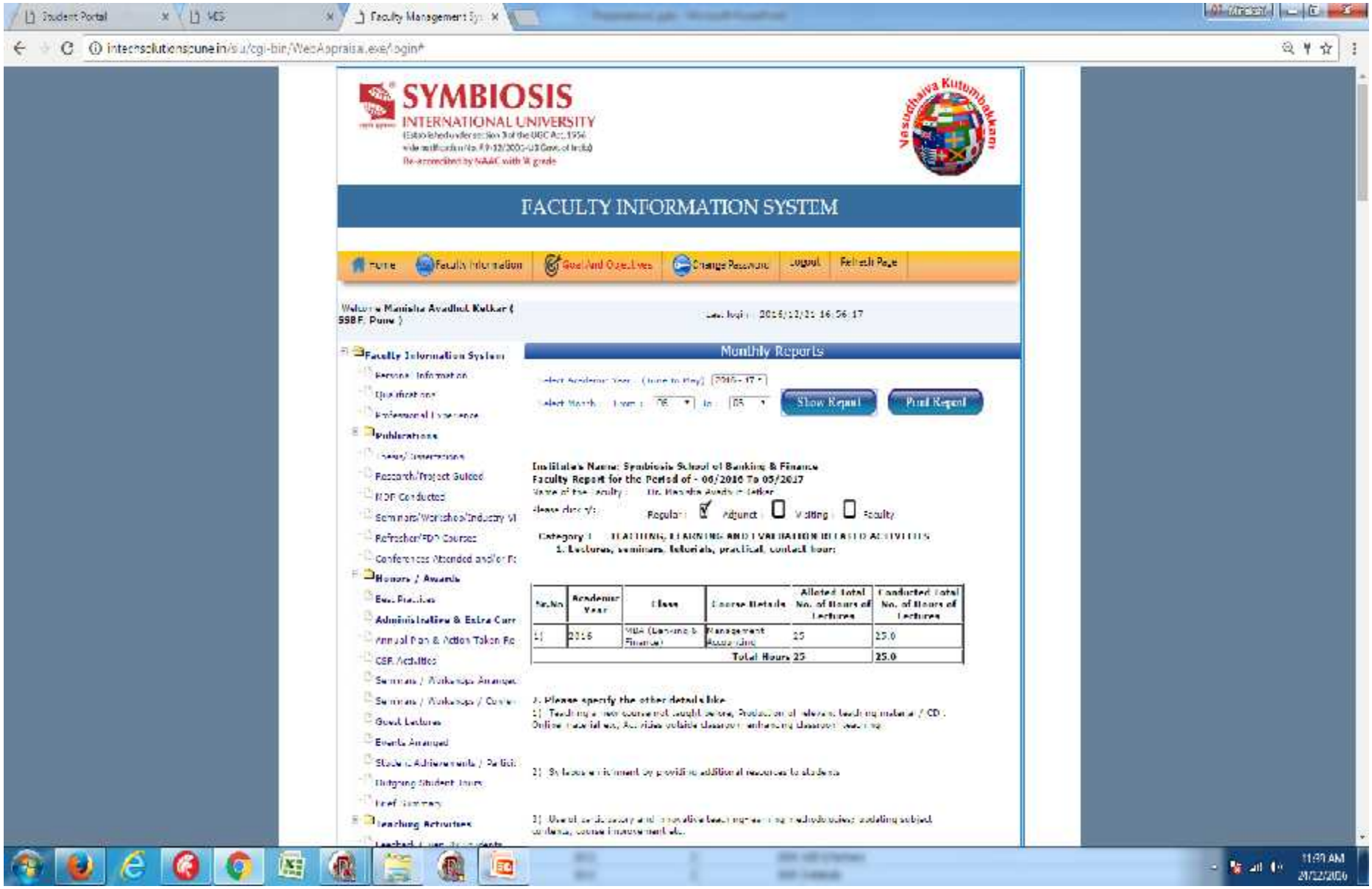
CONVOCATION REGISTRATION ON WEBSITE

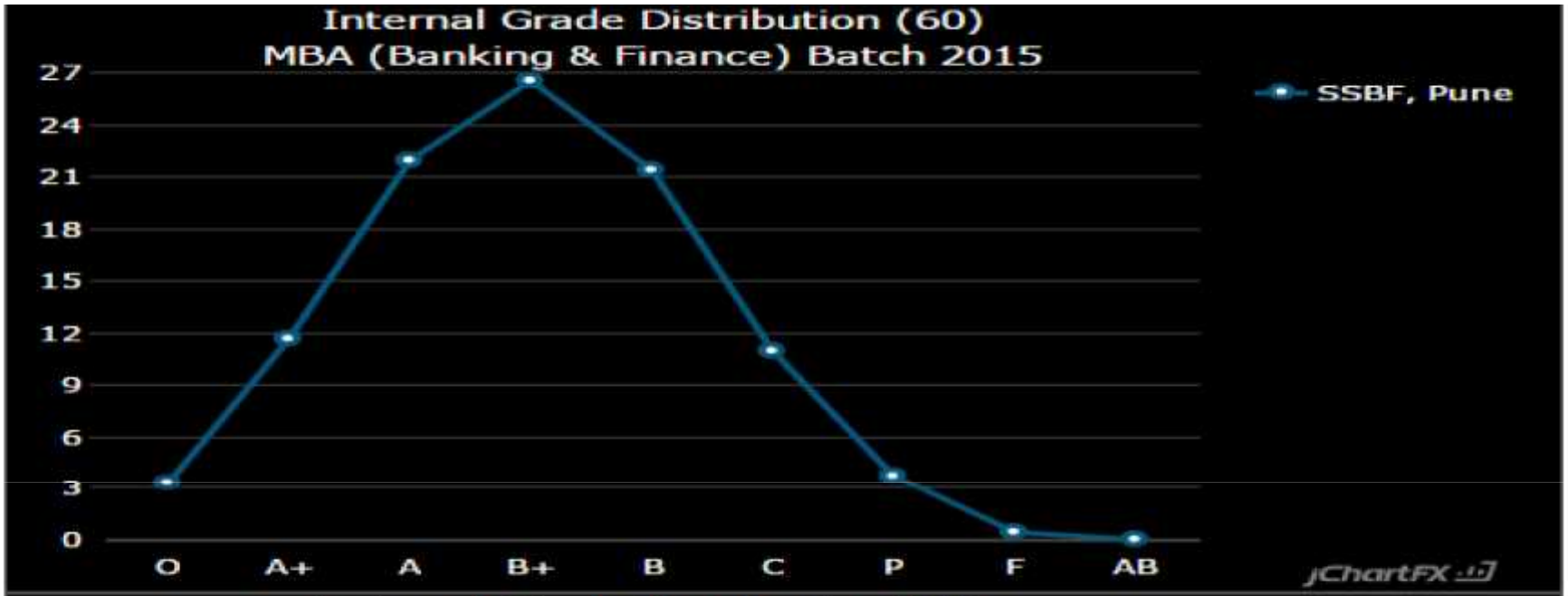


LEVERAGING TECHNOLOGY FOR FACULTY

- Faculty can Submit new courses to BOS
- Can Add feedback on courses
- Can Access e-resources seamlessly
- **Faculty Information System (FIS)** :
  - maintains Record of Publications
  - maintains Record of workload
  - record of conferences attended/chaired
  - Record of Journals edited or Reviewer of Journals
  - Record of awards received

MONTHLY ASSESSMENT REPORT




Internal Grade Distribution (60)
MBA (Banking & Finance) Batch 2015
27
24
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A+
A
B+
B
C
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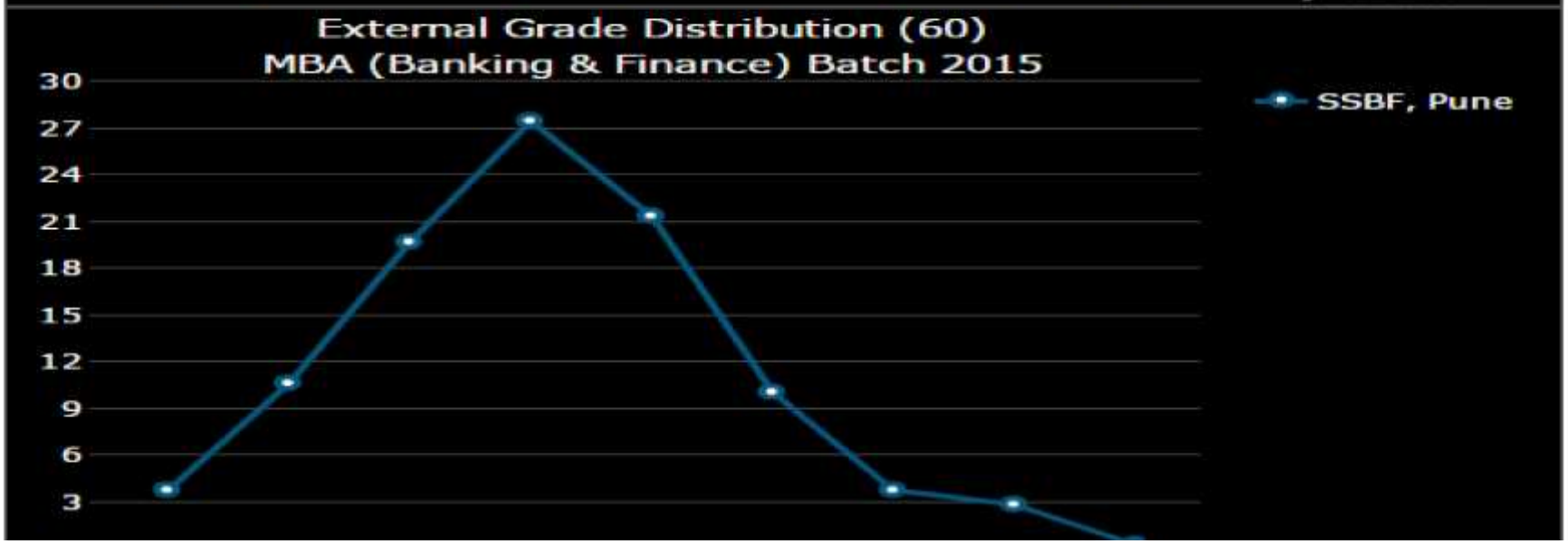
F
AB
SSBF, Pune
jChartFX


External Grade Distribution (60)
MBA (Banking & Finance) Batch 2015
30
27
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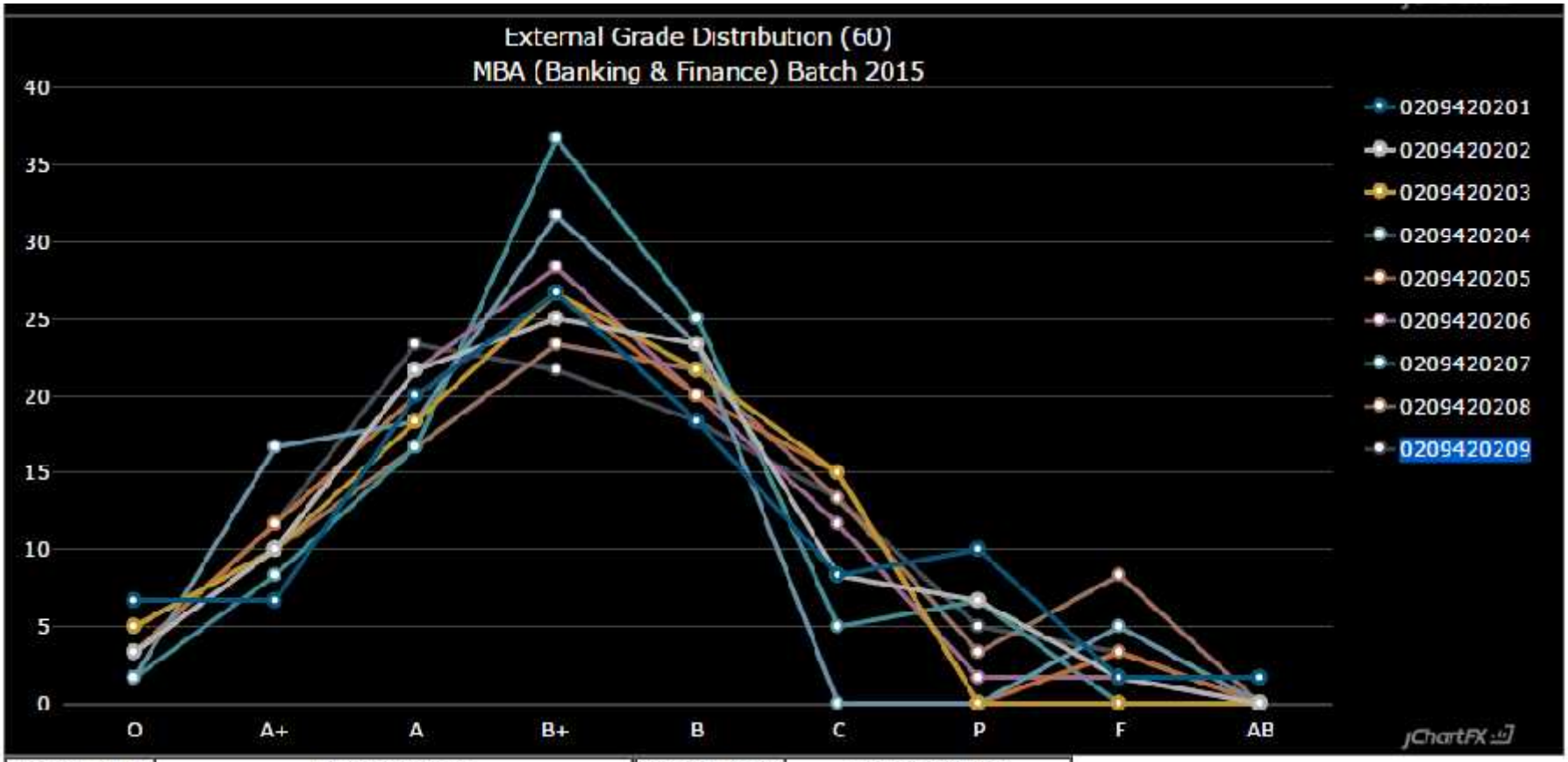
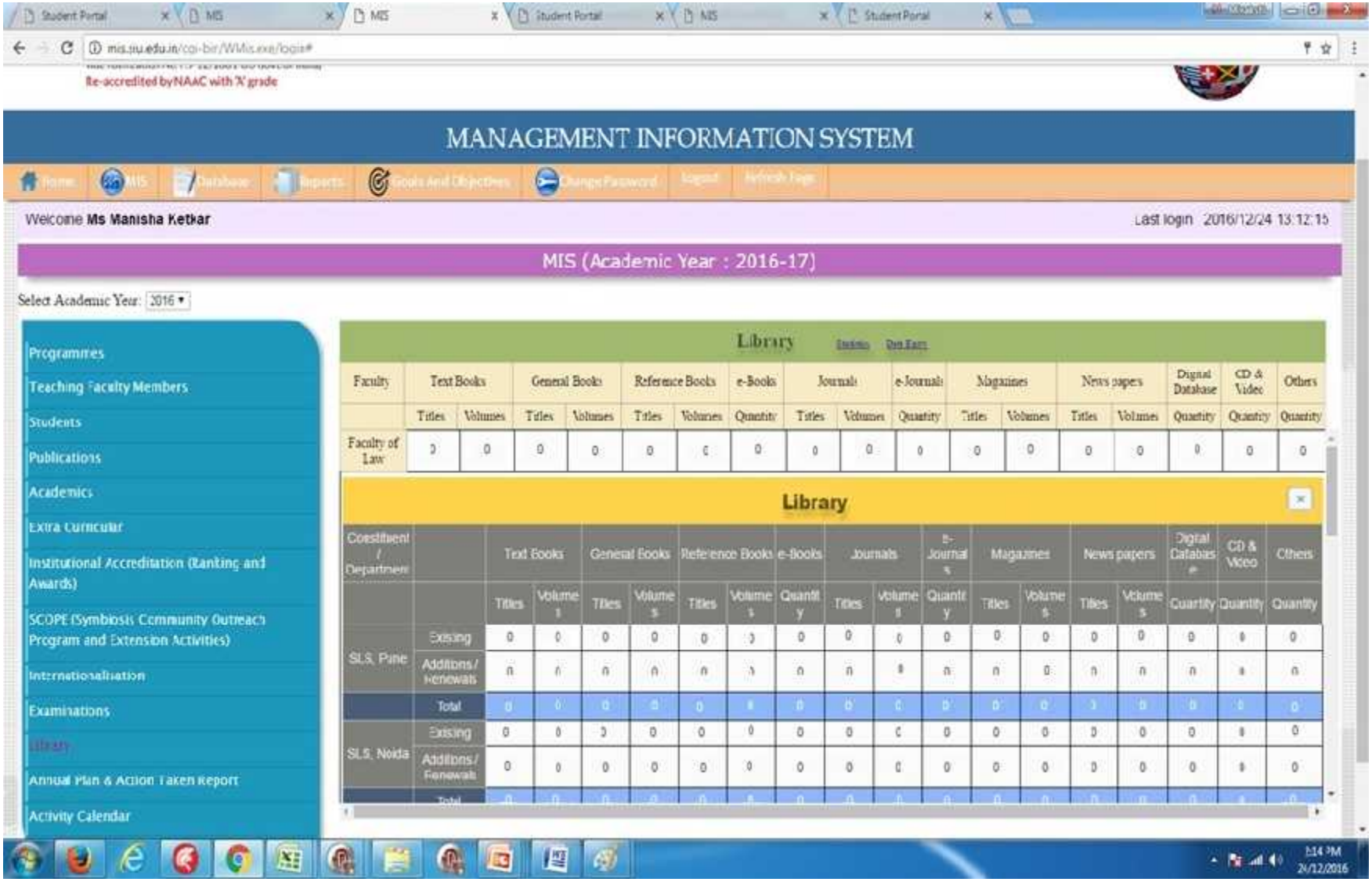
SSBF, Pune



Course Code	Course Name
0209420201	Credit Management
0209420202	Insurance Management
0209420203	Macroeconomics
0209420204	Investment Banking
0209420205	Derivatives Markets
0209420206	Microfinance & Developmental Banking
0209420207	Risk Management I
0209420208	Securities Analysis & Portfolio Management
0209420209	International Finance

Course Code	Course Name
0209420211	Taxation
0209420212	Business Awareness Test 1

LIBRARY


Re-accredited byNAAC with 'A' grade
MANAGEMENT INFORMATION SYSTEM
Welcome Ms Manisha Ketkar
Last login 2016/12/24 13:12:15
MIS (Academic Year : 2016-17)
Select Academic Year: 2016
Programmes
Teaching Faculty Members
Students
Publications
Academics
Extra Curricular
Institutional Accreditation (Ranking and Awards)
SCOPE (Symbiosis Community Outreach Program and Extension Activities)
Internationalisation
Examinations
Library
Annual Plan & Action Taken Report
Activity Calendar
Library
Faculty
Text Books
General Books
Reference Books
e-Books
Journals
e-Journals
Magazines
News papers
Digital Database
CD & Video
Others
Titles
Volumes
Quantity
Faculty of Law
Library
Constituent / Department
SLS, Pune
Existing
Additions / Renewals
Total
SLS, Noida
Existing
Additions / Renewals
Total

OTHER ADMINISTRATIVE FUNCTIONS DIGITIZED

Finance	HR
ERP Portal : Eklavya • Salary Processing • Salary slips • Income tax details	**ERP Portal :** Eklavya • All HR data • Qualification/Experience Documents uploaded in the system • Attendance / Leave details

OTHER ADMINISTRATIVE FUNCTIONS DIGITIZED..

Health Care

- Attendance at Gymnasium
- Electronic Health records
- E- records of Insurance of all staff and students

Asset management

- Tracking all assets
- Stock taking
- Koha Library system

THE BIGGEST ADVANTAGE : AUTO GENERATED REPORTS

- Creation of a Centralized database helps to auto generate various Reports needed regularly

  - AQAR Reports
  - NIRF data
  - AISHE Data

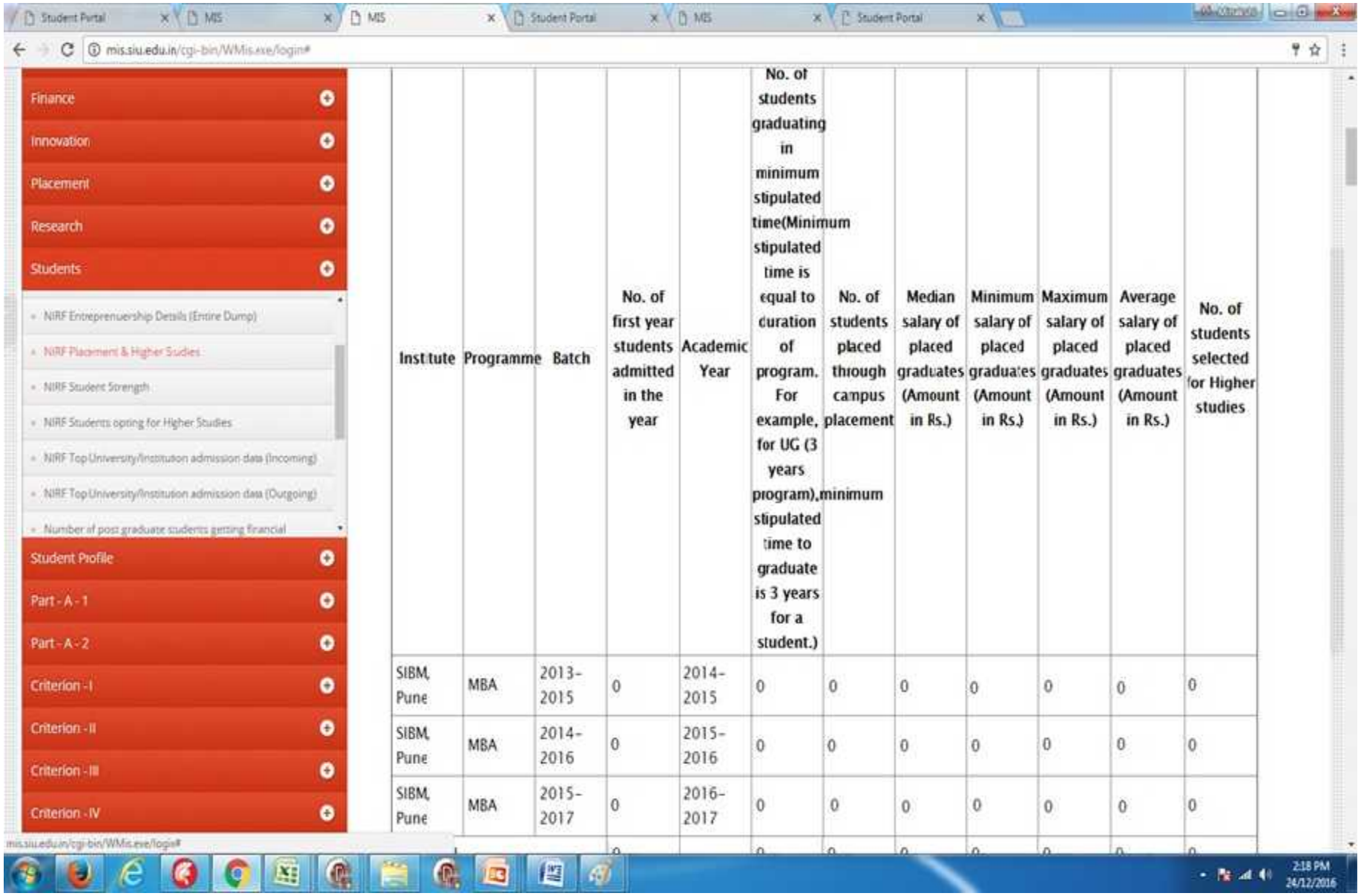
NIRF: STUDENT STRENGTH



Student Strength (UG [5 Year Program(s)])

Institute	Programme	Batch	No. of Male Students	No. of Female Students	Total No. of Students	Within state (including male and female)	Outside state (including male and female)	Outside country (including male and female)	Economically backward (including male and female)	Socially Challenged (including male and female)
SLS, Pune	BA LL.B	2012-2017	0	0	0	0	0	0	0	0
SLS, Pune	BA LL.B	2013-2018	0	0	0	0	0	0	0	0
SLS, Pune	BA LL.B	2014-2019	0	0	0	0	0	0	0	0
SLS, Pune	BA LL.B	2015-2020	0	0	0	0	0	0	0	0
SLS, Pune	BA LL.B	2016-2021	0	0	0	0	0	0	0	0
Sub Total			0	0	0	0	0	0	0	0
SLS, Pune	BBA LL.B	2012-2017	0	0	0	0	0	0	0	0
SLS, Pune	BBA LL.B	2013-2018	0	0	0	0	0	0	0	0
SLS, Pune	BBA LL.B	2014-2019	0	0	0	0	0	0	0	0
SLS, Pune	BBA LL.B	2015-2020	0	0	0	0	0	0	0	0

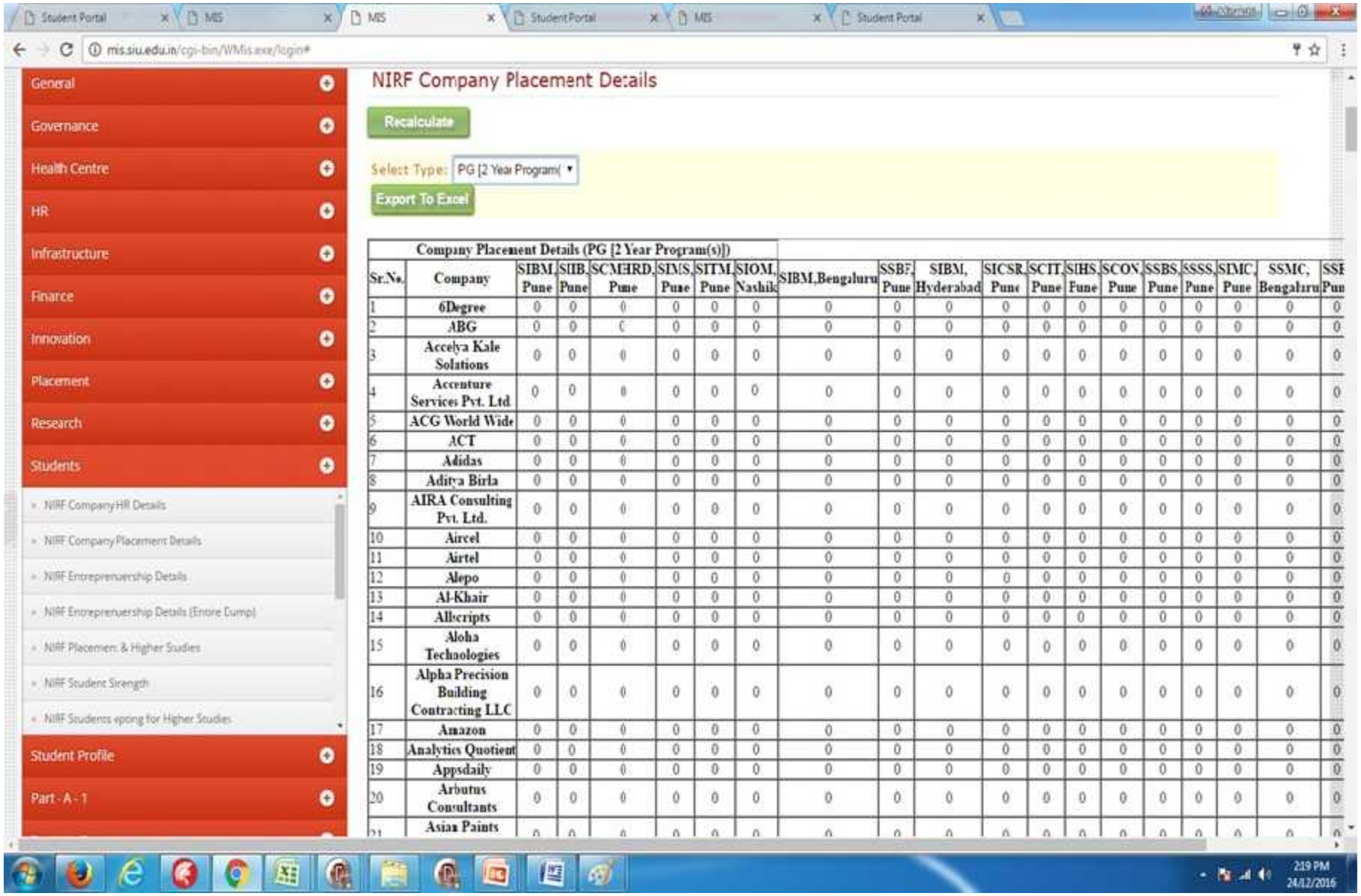
NIRF : HIGHER STUDIES & PLACEMENT DATA



- Finance
- Innovation
- Placement
- Research
- Students
  - NIRF Entrepreneurship Details (Entire Dump)
  - NIRF Placement & Higher Studies
  - NIRF Student Strength
  - NIRF Students opting for Higher Studies
  - NIRF Top University/Institution admission data (Incoming)
  - NIRF Top University/Institution admission data (Outgoing)
  - Number of post graduate students getting financial
- Student Profile
- Part - A - 1
- Part - A - 2
- Criterion - I
- Criterion - II
- Criterion - III
- Criterion - IV

Institute	Programme	Batch	No. of first year students admitted in the year	Academic Year	No. of students graduating in minimum stipulated time(Minimum stipulated time is equal to duration of program. For example, for UG (3 years program),minimum stipulated time to graduate is 3 years for a student.)	No. of students placed through campus placement	Median salary of placed graduates (Amount in Rs.)	Minimum salary of placed graduates (Amount in Rs.)	Maximum salary of placed graduates (Amount in Rs.)	Average salary of placed graduates (Amount in Rs.)	No. of students selected for Higher studies
SIBM, Pune	MBA	2013-2015	0	2014-2015	0	0	0	0	0	0	0
SIBM, Pune	MBA	2014-2016	0	2015-2016	0	0	0	0	0	0	0
SIBM, Pune	MBA	2015-2017	0	2016-2017	0	0	0	0	0	0	0

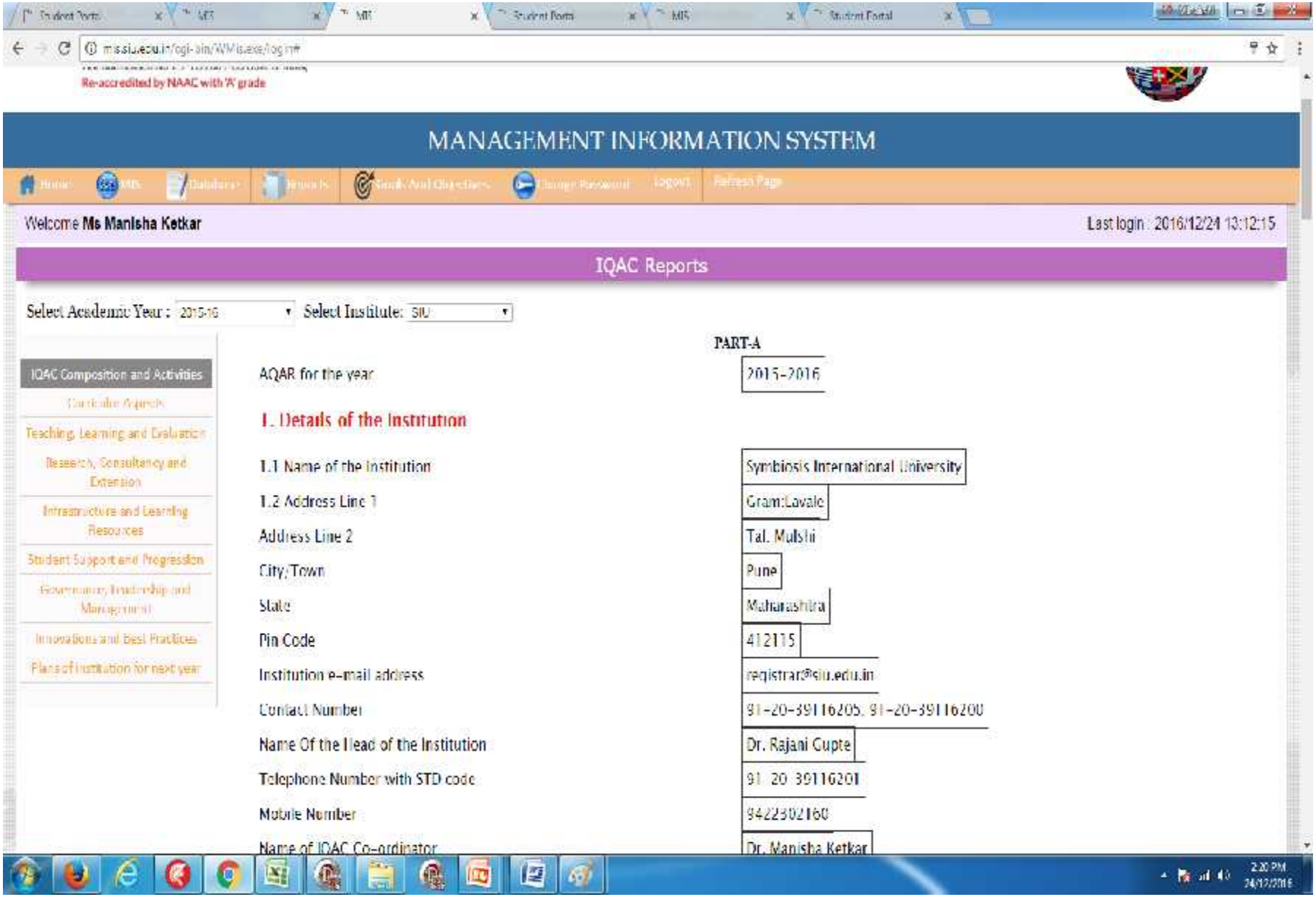
NIRF: COMPANY PLACEMENT REPORT



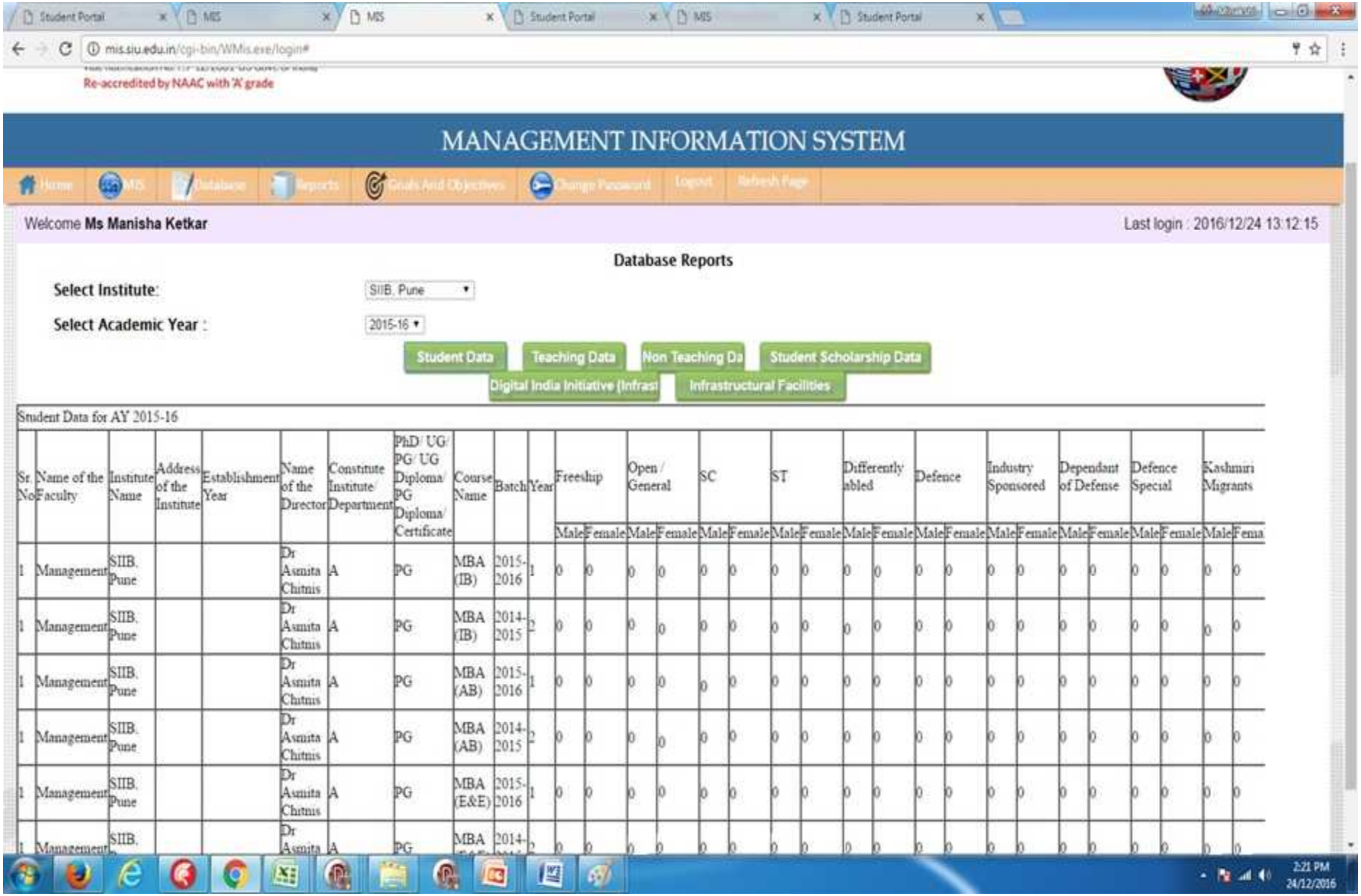
Company Placement Details (PG [2 Year Program(s)])

Sr.No.	Company	SIBM Pune	SIIB Pune	SCMHRD Pune	SIMS Pune	SITM Pune	SIOM Nashik	SIBM,Bengaluru	SSBF Pune	SIBM, Hyderabad	SICSR Pune	SCIT Pune	SIHS Pune	SCON Pune	SSBS Pune	SSSS Pune	SIMC Pune	SSMC, Bengaluru	SSE Pun
1	6Degree	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	ABG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Accelya Kale Solutions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Accenture Services Pvt. Ltd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	ACG World Wide	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	ACT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Adidas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Aditya Birla	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	AIRA Consulting Pvt. Ltd.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Aircel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Airtel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Alepo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Al-Khair	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Allscripts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Aloha Technologies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Alpha Precision Building Contracting LLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Amazon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Analytics Quotient	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Appsdaily	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Arbutus Consultants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Asian Paints	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AQAR REPORT

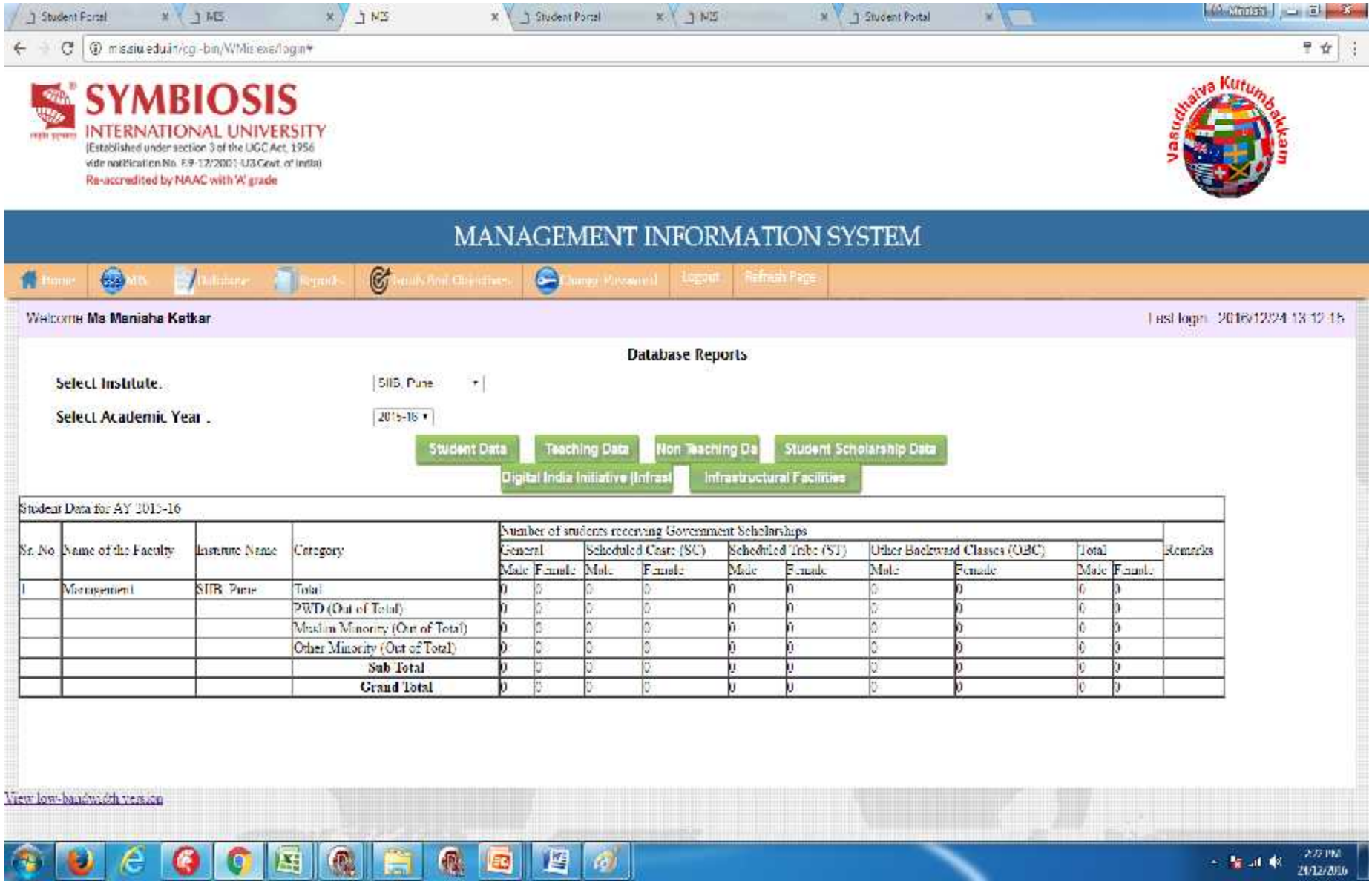

Re-accredited by NAAC with 'A' grade
MANAGEMENT INFORMATION SYSTEM
Welcome Ms Manisha Ketkar
Last login : 2016/12/24 13:12:15
IQAC Reports
Select Academic Year : 2015-16
Select Institute: SIU
IQAC Composition and Activities
Teaching, Learning and Evaluation
Research, Consultancy and Extension
Infrastructure and Learning Resources
Student Support and Progression
Innovations and Best Practices
Plans of Institution for next year
PART-A
AQAR for the year
2015-2016
1. Details of the Institution
1.1 Name of the Institution
Symbiosis International University
1.2 Address Line 1
Gram:Lavale
Address Line 2
Tal. Mulshi
City/Town
Pune
State
Maharashtra
Pin Code
412115
Institution e-mail address
registrar@siu.edu.in
Contact Number
91-20-39116205, 91-20-39116200
Name Of the Head of the Institution
Dr. Rajani Gupte
Telephone Number with STD code
91 20 39116201
Mobile Number
9422502160
Name of IQAC Co-ordinator
Dr. Manisha Ketkar

AISHE REPORT FORMATS : STUDENT DATA



Sr. No	Name of the Faculty	Institute Name	Address of the Institute	Establishment Year	Name of the Director	Constitute Institute/ Department	PhD/ UG/ PG/ UG Diploma/ PG Diploma/ Certificate	Course Name	Batch	Year	Freeship		Open / General		SC		ST		Differently abled		Defence		Industry Sponsored		Dependant of Defense		Defence Special		Kashmiri Migrants	
											Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Fema
1	Management	SIIB, Pune			Dr Asmita Chitnis	A	PG	MBA (IB)	2015-2016	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Management	SIIB, Pune			Dr Asmita Chitnis	A	PG	MBA (IB)	2014-2015	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Management	SIIB, Pune			Dr Asmita Chitnis	A	PG	MBA (AB)	2015-2016	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Management	SIIB, Pune			Dr Asmita Chitnis	A	PG	MBA (AB)	2014-2015	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Management	SIIB, Pune			Dr Asmita Chitnis	A	PG	MBA (E&E)	2015-2016	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	Management	SIIB,			Dr Asmita	A	PG	MBA	2014-	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AISHE REPORT FORMATS: STUDENT SCHOLARSHIP DATA



SYMBIOSIS INTERNATIONAL UNIVERSITY
(Established under section 3 of the UGC Act, 1956 vide notification No. F.9-12/2001-U3 Govt. of India)
Re-accredited by NAAC with 'A' grade

Vasudhaiva Kutumbakkam

MANAGEMENT INFORMATION SYSTEM

Home | MIS | Database | Reports | Goals And Objectives | Change Password | Logout | Refresh Page

Welcome Ms Manisha Katkar

Last login: 20/6/2024 13:12:15

Database Reports

Select Institute. SIIB, Pune

Select Academic Year . 2015-16

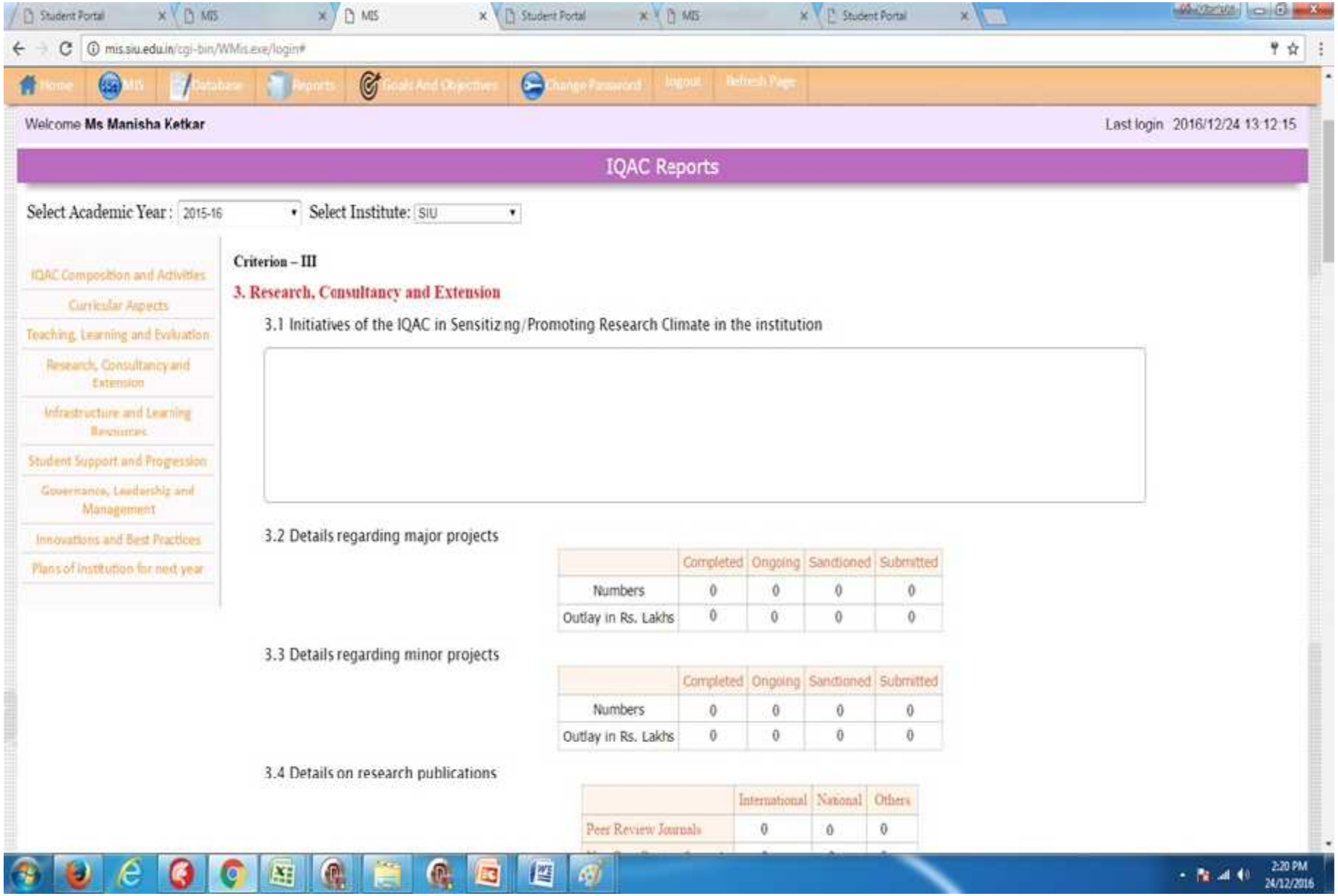
Student Data | Teaching Data | Non Teaching Da | Student Scholarship Data | Digital India Initiative (Infrast | Infrastructural Facilities

Student Data for AY 2015-16

Sr. No	Name of the Faculty	Institute Name	Category	Number of students receiving Government Scholarships										Remarks
				General		Scheduled Caste (SC)		Scheduled Tribe (ST)		Other Backward Classes (OBC)		Total		
				Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1	Management	SIIB, Pune	Total	0	0	0	0	0	0	0	0	0	0	
			PWD (Out of Total)	0	0	0	0	0	0	0	0	0	0	
			Muslim Minority (Out of Total)	0	0	0	0	0	0	0	0	0	0	
			Other Minority (Out of Total)	0	0	0	0	0	0	0	0	0	0	
			Sub Total	0	0	0	0	0	0	0	0	0	0	
			Grand Total	0	0	0	0	0	0	0	0	0	0	

View low-bandwidth version

AQAR REPORT


Student Portal
MIS
mis.siu.edu.in/cgi-bin/WMis.exe/login#
Home
MIS
Database
Reports
Goals And Objectives
Change Password
logout
Refresh Page
Welcome Ms Manisha Ketkar
Last login 2016/12/24 13:12:15
IQAC Reports
Select Academic Year : 2015-16
Select Institute: SIU
IQAC Composition and Activities
Curricular Aspects
Teaching, Learning and Evaluation
Research, Consultancy and Extension
Infrastructure and Learning Resources
Student Support and Progression
Governance, Leadership and Management
Innovations and Best Practices
Plans of Institution for next year
Criterion – III
3. Research, Consultancy and Extension
3.1 Initiatives of the IQAC in Sensitiz ng/Promoting Research Climate in the institution
3.2 Details regarding major projects
Completed Ongoing Sanctioned Submitted
Numbers 0 0 0 0
Outlay in Rs. Lakhs 0 0 0 0
3.3 Details regarding minor projects
Completed Ongoing Sanctioned Submitted
Numbers 0 0 0 0
Outlay in Rs. Lakhs 0 0 0 0
3.4 Details on research publications
International National Others
Peer Review Journals 0 0 0
2:20 PM
24/12/2016

CONTRIBUTING TO THE NATIONAL AGENDA

VISAKA (MHRD initiative):

Post demonetization, a “Banking Drive” was conducted in various campuses of Symbiosis International University. The objective of the drive was **to create awareness about having a Bank Account and the advantages of the same among the house keeping staff, security guards, watchmen, gardeners, mess staff of all SIU campuses who do not have the required knowledge and access to banking facilities.**







DIGITAL LITERACY DRIVES IN VILLAGES AND HAMLETS AROUND THE VICINITY OF DIFFERENT CAMPUSES

Symbiosis Community Outreach Programme and Extension Activities (SCOPE) partnered with NASSCOM Foundation to implement NDLM programme as a part of the service learning programme to train the beneficiaries so as to enable them to use digital devices such as smartphones, tablets, computers etc and browse the internet.

After completion of the training assignment, the beneficiaries had to undergo an online test and e-certificates were issued by the Government of India for the beneficiaries who are able to prove minimum standards of learning during the assignment .

Over 100 people were certified as digitally literate under this activity that was taken by Symbiosis Institute of Technology.



KNOWLEDGE CREATION

E-Pathshala:

Content creation for **e-Pathshala,** an initiative of the Ministry of Human Resource Development.

SIU contributed to this in collaboration with National Law University – Delhi and National University of Juridical Sciences.

The following three modules were created by the Symbiosis International University's Constituent Institute - **Symbiosis Law School**

- Credit card fraud
- Racketeering in Employment
- Racketeering of False documents

KNOWLEDGE DISSEMINATION

- In-house development of web portals and virtual labs to disseminate e-content in specific domains such as Telecom, Management, Law, Computer Science
- Uploading of content on Social Media
- Use of digital libraries
- Contribution to **e-Shodhaganga** – a Ph.D. thesis repository
- Provision for incorporation of **MOOCs** (including those in SWAYAM) in programme structure

KNOWLEDGE DISSEMINATION

- **Transnational lectures** and resource sharing with collaborators in UK, EU and Australia.

  Sessions include:

  - Mooting Skills
  - Comparative theories in Health Care
  - Internationalization of Higher Education

- Symbiosis Institute of Computer Studies and Research promotes **open source community** in and around Pune like Pune Linux Users Group, Pune Java Users Group, etc. and conducts various conferences and seminars in association with various organizations.

CODING SISTERS



A project to teach computer skills and code writing to girls by girls was conducted by Symbiosis International University at Pune Police Public School.. **The mentor sisters are technology students from Afghanistan studying at Symbiosis** while the mentee sisters are VIIIth standard school students. The Coding Sisters are learning together and motivating each other to explore and access new career pathways.


THANK
YOU
return

SYMBIOSIS
INTERNATIONAL UNIVERSITY

(Established under section 3 of the UGC Act 1956, by notification No.F.9-12/2001-U3 Government of India)
Re-Accredited by NAAC with 'A' Grade
Founder: Prof. Dr. S. B. Mujumdar, M.Sc.,Ph.D. *(Awarded Padma Bhushan and Padma Shri by President of India)*

Digital Initiatives at Symbiosis International University (SIU)

About SIU

The Symbiosis International University (SIU) was established under Section 3 of UGC Act, 1956, in the year 2002, with the basic objective of encouraging the dissemination, advancement, development and application of knowledge at the Under Graduate and Post Graduate levels.

SIU encourages the use of technology in all the academic and administrative functions at the university. Some of the key initiatives adopted by the various constituents / departments of SIU are enumerated below:

1. Leveraging Technology : Student Life Cycle management

Every activity from Admission to Convocation and beyond are managed using Technology.

- **Admission process** – Application,Payment of registration fees, downloading admit cards,viewing results, waitlist , payment of fees , applying for Refund of fees .
- **Eligibility checking process** – Students upload their documents, the University verifies and completes process in a paperless manner
- **Course Catalogue for each Specialization** – listing all core, electives , generic core and specialization electives. This permits students to choose electives
- **Administrative functions** – The attendance, Faculty, Course and Institution Feedback providing Academic content, access to Library , payment of fee instalments etc
- **Examination System** – The online system enables the monitoring of continuous evaluation, generates exam form, displays resuts, generates revaluation form, application for Convocation and applying for verification and transcripts.

2. Leveraging Technology for Faculty

The online **Faculty Information System** simplifies the tasks of the Facuty

- Maintains record of the publications of Faculty
- Maintains record of conferences attended/ chaired
- Provides seamless access to e-resources
- Maintains record of workload and classes taken
- Permits facuty to review performance of students in examination
- Enables analysis of exam performance

3. Leveraging Technolgy for Administration

Most administrative functions such as Finance, HR, Asset management are also digitized. Electronic Health care records, Insurance records of staff and students are full digitized .

4. Knowledge Creation

- Use of various **open source e-learning technologies** to enhance teaching and learning.
- Moodle Teams to administer and develop LMS
- **Virtual Programming Lab (VPL)** – An open source application to enable writing and execution of software programs remotely
- Adoption of **FOSSEE** in the curriculum
- FOSSEE – Open Learning System – a LMS developed by SICSR has been made available on **openforge.gov.in** for use and is available for enhancement of functionality
- Developed Android application to teach programming to beginners (school children). This too is published on **openforge.gov.in**
- Creation of a repository of lectures and course material.
- Contribution towards content creation for **e-Pathshala,** an initiative of the Ministry of Human Resource Development. SIU resources contributed to this in collaboration with National Law University – Delhi and National University of Juridical Sciences.

5. Knowledge Dissemination

- In-house development of web portals and virtual labs to disseminate e-content in specific domains such as Telecom, Management, Law, Computer Science, etc.
- Uploading of content on Social Media
- Encouraging the use of digital libraries among faculty and students
- Contribution to e-Shodhaganga – a Ph.D. thesis repository
- Provision for **incorporation of MOOCs (including those in SWAYAM)** in programme structure
- **Transnational lectures** and resource sharing with collaborators in UK, EU and Australia. Sessions include:
    - Mooting Skills
    - Comparative theories in Health Care
    - Internationalization of Higher Education
- Use of blogs by faculty and Directors

6. Digitization initiatives for the Community

- Digital literacy drives in villages and hamlets near our campuses in Pune and Hyderabad
- Service learning projects focusing on digital literacy.

Digital Initiatives in the Education Sector

S Parasuraman

Tata Institute of Social Sciences (TISS)

Presentation on 8th July 2017

TISSx is MOOCs for Teacher Professional Development

- For the Post Graduate Certificate in Reflective Teaching with ICT which TISS is launching in 2017, we are using an instance of Open EdEx and we have named this platform TISSx.
- The platform has 'terms of service' and a 'privacy policy' being used by IIT Bombay, adapted to TISS.

TISSx is MOOCs for Teacher Professional Development

- **TISSx** offers online courses in School Education in Rajasthan, Mizoram, Telangana and Orissa that include opportunities for faculty-to-learner and learner-to-learner interactivity, individual assessment of a learner's work and, for learners who demonstrate their mastery of subjects, a certificate of achievement or other acknowledgment.
- By 2018, this will be offered in all States in the country.

Courses offered in Digital Form since 2006

1. TISS developed an innovative Master's Degree program on Education (Elementary) for working professionals. While candidates selected through All India Admission Test process spend one month in each semester for off-line contact learning (4 months in four semesters of the Master's program)
2. Post Graduate Diploma program (two semesters) on Digital Library and Information Management.

- In both the programs, the remaining part of each semester, students move to (**Online Learning(OL)** mode through MOODLE platform developed and operational since 2006 at the TISS.
- Both the programs are revolutionary in nature to make available teachers from mainstream industry and digitize library resources so that online learning resources could become easily available.

Since 2006, TISS developed expertise in digital framework and offered several courses in MOOCs

1. M.A. International Family Studies (a multi-university (in the U.S.A., South Korea, Australia, Thailand) collaborative project since 2014.

2. M.A. in Child Rights since 2014.

3. Diploma course on “Disaster Management and Recovery” offered to practitioners across the world since 2009.

1. Several other diploma programs are being offered digital mode. The options are unlimited to reach out range of skill areas in vocational education.

e-PG Pathshala project

- TISS developed e-content in the subject Social Work under e-PG pathshala project, for ten papers. TISS is a pioneer in the Social Work discipline since 1936 proposes to fundamentally alter quality of education offered to students enrolled to PG programs.

- TISS is also involved developing e-content for Population Studies / Demography

Course on Secular Ethics

- TISS is developing a CBCS course on Secular Ethics with guidance from His Holiness Dalai Lama and would be available for offer in MOOCs from September 2017. This course builds on the Constitutional preamble articulating principles of compassion, equality, justice, fraternity.

TISS is in the forefront of MOOCs Reaching high quality education and skills to All Young People

- TISS has over 10 years of experience in offering PG and Diploma courses in digital framework.
- TISSx MOOCs platform is ready and oprational.
- Tata Trust is setting up a Studio to produce high quality courses to offer through TISSx
- We are part of UGC's ***e-PG Pathshala project***

WELCOME



PROFESSOR SACHIDANANDA MOHANTY
VICE-CHANCELLOR

CENTRAL UNIVERSITY OF ORISSA, KORAPUT

A. DIGITAL INITIATIVE

Examination

The following measures have been taken;

- Process initiated for issue of digitalized grade sheet and certificate through NAD.

- Necessary information as per requirement of NAD regarding the different programmes offered by the University, duration of the course, pattern of the examination, forwarding of the grade sheet etc. have been submitted to NSDL.

Finance

- All payment to the suppliers/other agencies through RTGS/NEFT.

- Academic receipts like fee from the students as tuition fees, examination fees etc. are collected through SBI e-collect mode.

B.TEACHING / LEARNING PROCESS

Innovative Methods

- Small classes
- Tutorial Methods
- ICT mode of teaching
- Teaching at the community level
- Emphasis on craft and aesthetic education, interdisciplinary approach
- Teaching with the help of game and case studies
- Project based internship education
- Seminar method of student participation
- Course evaluation by students
- Syllabus revision with the help of Alumni
- Group discussion

C. IMPROVEMENT OF ADMINISTRATION

- Establishment and Strengthening of Grievance Redressal Mechanism
- Strengthening of Internal Complaints Committee (ICC) for gender awareness and gender justice
- Implementation of on-line RTI
- Compliance to the MHRD and UGC direction regarding on-line portal
- Timely compliance to the Audit queries

D. MAJOR FOR PROMOTING RESEARCH

- Encouragement of faculty for project grants
- Financial support to the students for research
- Suitable leave to carry out research
- MoU with industry such as HAL and NALCO for promoting research
- Encouraging faculty to participate national seminar/ conference
- Extra mural lecture for research exposure

E. INVOLVING COMMUNITY FOR IMPROVING LIVELIHOOD

Adoption of Villages

- Education heath care and sanitation
- Lecture on skill development programme
- Literacy campaign

Swacch Bharat Abhiyan

- Enhance awareness for hygiene and cleanliness all around
- Community participation and student involvement
- Hostel cleanliness drive
- Cleanliness in the neighborhood villages
- Clean drinking water and the bore well facility for the villages

E. INVOLVING COMMUNITY FOR IMPROVING LIVELIHOOD

Unnat Bharat Abhiyan

- Five villages adjacent to the University have been adopted
- Involving local people on wage basis several activities were also carried out such as cleaning of weeds and bushes, plantation in the University and its surroundings.
- Local people are working in the Construction, canteen, garden, sanitation and security duty of the University
- health and hygienic awareness programme conducted in the adopted village Rajpalama
- Health check up and awareness camp conducted in the adopted village Chakaraliput
- The art and craft training programme conducted in the Prathamika Sevashram, Rajpalma
- The village cleanliness programme conducted in the adopted village Nuaguda

E. INVOLVING COMMUNITY FOR IMPROVING LIVELIHOOD

- The village cleanliness programme conducted in the adopted village Chakaraliput on 1st February 2016.
- Awareness programme on construction of septic toilets, care for orphan children and provision of housing for all were communicated by folk song in local *desia* dialects and street play.
- The University provides drinking water facilities by three deep bore well in surrounding villages.
- Electrification, toilet and water facilities provided with the help of District Administration

F. ACTION TAKEN IN REDUCING LEGAL CASES

- Prompt responses to queries and compliances
- Strengthening of the Grievance redressal mechanism
- Monitoring legal cases for swift disposal
- Transparency in selection methods

G. PLANNING FOR FUTURE

Three years ahead

- Filling of the existing vacancies
- Inviting outstanding guest faculty and visiting Professors
- Creation of corpse fund for new teachers
- Encouragement of research culture
- Expanding Industry-Academia interface
- Introduction of new teaching programmes
- Adequate infrastructure

A. PLANNING FOR FUTURE

Seven Years ahead

- Institutional collaboration
- Inter-University mobility
- Creation of research clusters
- Scholarly movement across the nation

Fifteen Years ahead

- Making the University a regional hub in teaching and research
- Making teaching relevant to the community needs
- Majority of the teachers linked to the international grid
- Making the University and outstanding center of excellence

"For the region and for the nation"

CENTRAL UNIVERSITY OF ORISSA, KORAPUT



Guest House of Central University of Orissa at its permanent campus, Sunabeda

Central University of Punjab, Bathinda

the CUPB

AC 'A' Grade accredited (Old Scheme), in 2016

out 1000 students enrolled in 90 academic programmes across 19 Centres

ned 15 national & 3 international MoUs (a) Saskatoon, Canada

(b) Kunming Institute of Botany, Chinese Academy of Sciences &

(c) Xishuangbanna Tropical Botanical Garden, CAS, China

l and timely adherence to all UGC & MHRD guidelines

emics

017-18, through CUCET: For PG programmes : 30,101 applicants for 726 seats : demand ratio of 1:41

For Ph.D. programme : 7,281 applicants for 100 seats : demand ratio of 1:72

807 eligible students (2013-14), 224 (73%) qualified 294 National Tests (95.7%)-Highest in the Country

search students: All get Fellowships from funding agencies

dited with very good research output *h*-index: 18

onvocations held so far; Total Degrees awarded: 476 (including 5 Ph.D.) ; No Backlog of Convocations

ancial support to 122 PG students: (a) Government Scholarships, (b) Internal Resources-(i)Earn-Whi

rn Scheme (ii) Interest-free Loan Facility (iii) Personal financial support to the needy

ulty

ll faculty are Ph.D. & NET qualified at AP level: Ph.D. and NET are essential qualifications

ver 160 Research Projects worth over Rs 24 Crores sanctioned

ST-FIST grant of ~ 2 Crores to two Centers (a) Environmental Science & Technology (

harmaceutical Science & Natural Products

aculty includes DST INSPIRE, DST Young Scientist, Ramalingaswami, Ramanujam, JC Bo

ational Fellows. Mostly with research experience in US, Canada, Germany, Japan, Israel etc.

earch

UPB published 1424 research papers apart from 1311 papers presented in National a

ternational conferences.

orld Class Research Facilities & State-of-Art Infrastructure in more than 24 Labs

dopted 10 villages on health and environment issues

king

IRF rank 65th rank in 2016 and in band 101-150 in 2017

Administration and Finance

YPE/Video Conferencing is used for:

a. Interviews for ex-India applicants for teaching positions

b. Meetings with members of AC/FC/EC who can't visit Bathinda

ometric system used for attendance

line Leave Management System has been implemented

line Complaint System for technical complaints.

rchasing of **e-office manager** software is under process.

cruitment process through online mode**;** SMS & email for communication with candidates

mmunications with faculty & staff mostly through email.

Surveillance in university.

art Card for students/faculty/staff serves as Id card and access to high security zones.

house **University Management System (partially implemented; full operation in proce**

monitory transactions in digital mode. Stood at **8th position in VISAKA in the country.**

opting **National Academic Depository** as per initiative of MHRD

int-of-sale (**POS**) **machines** installed in Finance section; being installed in Mess and Cant

Fully Online Admissions & Counselling

ully online (Perhaps 1st university that has adopted fully online admission mecha

ight from filling of the form by student, correspondence with the university, **Counselling**, **F**
ayment and finally admission were **all online from last two academic sessions.**

Online Examination System

ccessfully introduced the **Online Examination System** which includes the following:
.) Surprise Test *(MCQs on OMR Sheets)* **b.) Terminal exams** *(**online** MCQs)*

has also led to regularity in declaring of results and issuing DMCs apart from posting it
ents. We also are in the process organising convocation within 3-4 four days of declaration
ts from next year.
uccessfully implemented **Automated Result Processing System** from session 2014-15
xamination cell has developed in-house software for **result processing and tabulation**.
rinting of individual DMCs with 100% accuracy**,** with advanced security features.
xamination Web Portal for students for **user-friendly access.**
nline Feedback System on performance of teachers ***(Identity of student not revealed)***
ive Streaming of **Second Convocation** was facilitated.
ive Stream the **Orientation Programme for 2017-18 batch.**

Teaching and Learning

G Paathshala: CUPB is PI for e-PG paathshaala in Environment Science & Techn

lassroom using **Live interactive audio video lectures.**

rocess of adopting

MOOCs

Swayam Prabha channel installed at various locations for knowledge-learning of stud

e-PG Paathshala

nguage Laboratory to improve the communication skills of the students/teachers.

Digital/Technical Support

egular updating of the **University website** with **INTRANET** facility.

odern computer centre with High-end PCs, Work stations & Blade servers etc.

omputer centre with **highly configured systems** and **high-end work stations.**

ntire campus, residential areas, hostels are fully Wi-Fi enabled.

wo lease lines (100 Mbps and 1Gbps NKN Link)

censed several Technical softwares is in use

Community Outreach

rganises **"Computer Literacy Programme** for senior citizens". In 6 batches, 75 sen
izens participated.

nder ***Unnat Bharat Abhyiaan***, students from local schools and colleges visit t
niversity Laboratories, Library etc. and make use of facilities available at CUPB.

rovision of **Soil Health Cards** for rural people (in adopted villages) has been started.

Information dissemination and e-learning

university subscribes to a large number of

E-journals – around 10000

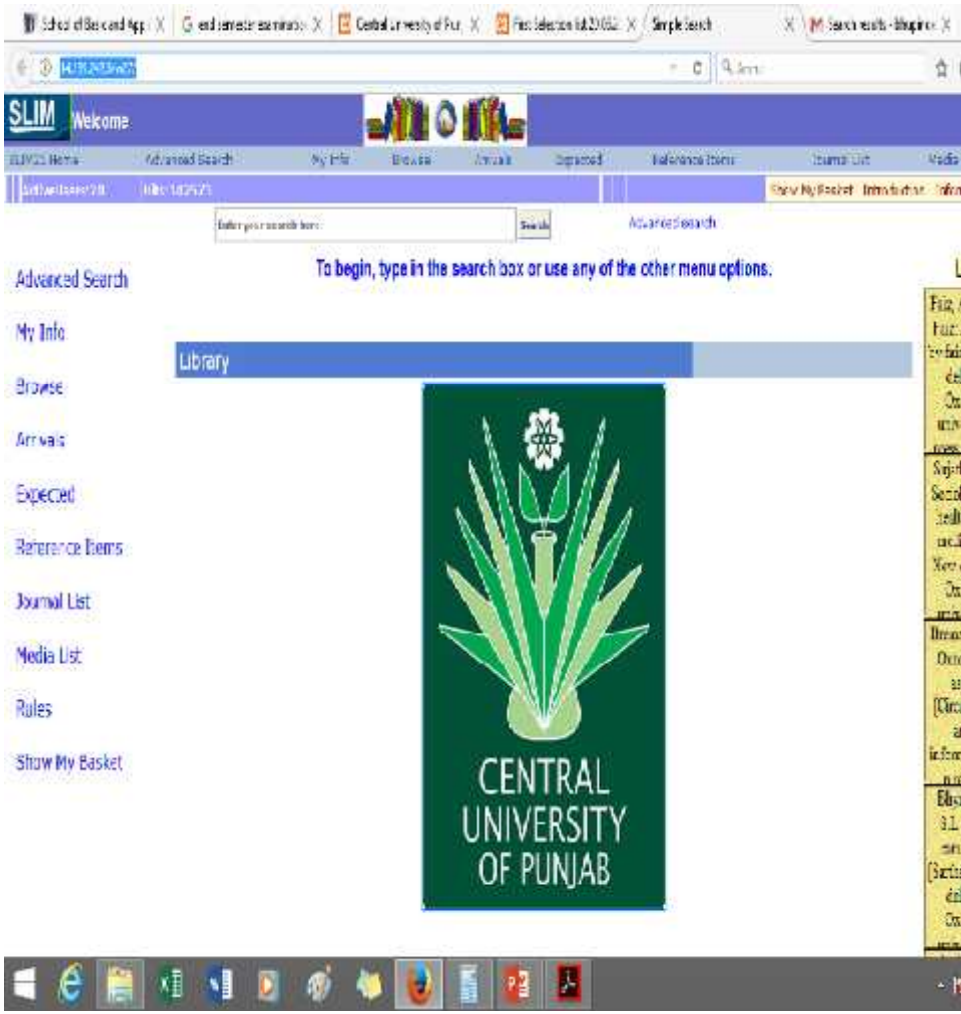
Databases - 20

E-books - 451

Kindle e-books – more than 25000

dle of good quality for students which are ued for 15 days for reading e-books.

Online Public Access catalogue (OPAC) lable for the users through internet ://14.139.242.3/w27/.



CUP-Institutional Repository

Link http://210.212.34.22:8080/xmlui/

The CUPB has created a digital repository for researchers.

It is an on-going activity for publication of e-text by faculty & students. Research papers, PPT, Audio-Video lectures etc. are added regularly.

Relevant documents related to curriculum are preserved in the archive. These are made available to the users through internet.

D-space open source software to support the repository is in use.



YouTube lectures for students

The University has allocated separate 20 computers with internet connectivity in the library for accessing online lectures from you tube.
In order to discourage the access to undesired sites on internet, this facility is restricted only the 20 computers.
It is much in use for online lectures, educational videos, online talks etc.



Other initiatives

- 12 LED TV sets (in hostels, canteens academic blocks etc.) are in use for watching and listening of 32 DTH channels under SWAYAM Prabha programme.
- National Digital Library: All faculty members, researchers and student are registered on NDL for accessing and use of e-resources.
- **Other Online Facilities**

  Grammarly online tool for students to improve writ skills, check grammar and plagiarism.

Fully Automated Library with RFID technology

Because of Automation only 7 employees (including contractual) are managing 18 hrs operation .

Library timings: 8 AM to 2 AM everyday (365 days – expect 3 national holidays). It includes facility for girls students also.

Self Issue/Self Return by the users.

SMS & Email intimation: The borrower are cautioned thrice about t last date of return of books/kindle through SMS and emails to avoid la returns ; There is hardly any late return problem now.

SMS & Email service for information of reserved books is also practiced

Problems/Apprehensions & Suggested Solutions of OER

Problems/Apprehensions	Suggested Solution
r IPR issues, faculty fears uploading their Research pers, PPT, Lectures on public domain.	1. MHRD should create a guidance cell to dispense with the fears in faculty.
culty prefers to publish research papers, patent for tting credit & visibility. Only a few are interested in loading their lectures.	2. Uploading minimum no of PPT, Audio-Video Lectures, field & class notes etc., apart from their usual task of teaching & research be mandatory for every teacher.
ere is no prescribed minimum quality standard for open ucational resources (OER).	3. MHRD must setup a cell to monitor the quality of OER uploaded on IR & prepare some minimum quality assurance guidelines and indicators.
ading on OER in public domain needs very strong server r simultaneous multiple users. This is becoming a nitation.	4. The server of the IR in University need to improve & with UPS. There coul be some minimum financial and technical support for universities for serv & other infrastructure.
culty is not aware of the significance and potential of R.	5. University should apply for own ISSN number which could be used for allocation to OER material (audio-video lectures, ppt, papers, class notes)
e UGC's 4th amendment, Regulation (2016) in category (E): *"Development of e-learning delivery process/ aterials under Research and Academic Contribution"* eds more clarity.	6. MHRD may consider recognizing teacher's contribution to OER equal to th of publication.
many places irrelevant (like unchecked/qualified aterials) has/is being uploaded on institutional pository (IR). This way the space is denied to the evant material.	7. University should have a committee to continuously review & update OE It must also train the faculty & students regarding ➢ IPR ➢ Copyright ➢ Creative Commons Attribution license (https://creativecommons.org/license
IR, dissertations are available on Word/PDF format and e students get attracted to copy/ paste & plagiarize.	8. The material uploaded on IR should be prepared on PDF image file.

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Digital Initiatives for Higher Education at Pondicherry University

Presented by:
Prof. (Mrs.) ANISA BASHEER KHAN
Vice-Chancellor (Officiating)
Pondicherry University (A Central University),
R V Nagar, Kalapet,
Puducherry - 605014

National Convention on Digital Initiatives for Higher Education, 8-9 July 2017, New Delhi

I. DIGITAL INITIATIVES TO FACILITATE STUDENT ADMISSION, LEARNING AND EVALUATION

1. Admission process

- Online Application Registration Portal Provision for online application fee payment Downloadable hall tickets from the University website.
- Webcam enabled Registration Desk at the Exam Centre for candidate's Hall Ticket Verification & Photo capturing.
- Provision for Biometric enabled thumb impression capture services at the Registration Desk.
- Provision for Video Recording services of the entire test using Webcam at all the Exam Centres.
- Computer based Entrance Examination conducted at about 34 Centres with encrypted question papers.
- Computer based evaluation of Entrance Examination answer scripts and publication of results.
- Generating and publishing selection list and waiting list for facilitating Admissions.
- Provision to download individual score card by the candidates.

2. Payment of fees by online

- Provision to pay the admission fee at the time of admission through Debit/Credit card/Internet banking/Cash payment through Indian Bank challan.
- Provision to pay subsequent semester fees through online using Debit/Credit card/Internet banking/Cash payment through Indian Bank challan.
- Provision to generate fee receipts.
- Provision to monitor the fees payment by the students of all Depts/Centres.

3. Automation of the Examination process

- Registration of courses for each semester.
- Registration for end semester examination and download hall ticket
- Provision to consolidate the results
- Provision to send the results to Academic Section electronically for issue of Grade Reports

4. Performance evaluation of Teachers by Students

Online mode to collect Students to provide Feedback to the teachers

5. Student Academic Activity Management System (SAMS)

1. Registration of Courses
2. Consent of Teachers
3. Dropping of Courses
4. Submission of Student Registration Particulars & Fee Payment
5. Periodic entering of Internal Assessment Marks
6. Student Evaluation of Teachers
7. Entering of Student Attendance
8. Exam Fee Payment
9. Hall Ticket Generation
10. Entering End Semester Exam Marks
11. Generation of Individual & Consolidated Result
12. Generation of Semester Grade Card

II. INITIATIVES TO CREATE DIGITAL ENVIRONMENT BY FACULTY MEMBERS

1. Use of Learning Management System (LMS) to impart education:

Faculty members of the Department of Computer Science, Chemistry and Electronic Media and Mass Communication, have been using the open source LMS called *MOODLE* (Modular Object Oriented Dynamic Learning Environment), *Edmodo* (free LMS), *Google Class Room* and *Facebook Pages* to have seamless interaction with the students

2. The Media and Communication Programme offers course on E-Content Development:

Students pursuing MSc Electronic Media Programme, are being offered a course on E-Content Development and the successful students are placed in e-Learning industries as instructional designers and courseware developers. Every student enrolled for this course is being trained to produce a professional interactive e-content.

3. Class room lectures by senior faculty members have been captured effectively:

The Media Production Centre in capturing great Master Classes in videos, so that these could be used as a learning materials for the students who have no access to quality teaching resources.

4. Faculty contribution to e-PG Pathasala: Faculty members have been contributing content to e-PG Pathshala on Library and Information Science, Journalism, Communication and Food Science.

5. Towards contributing courses for MOOC: Competent faculty members are in the process of developing e-content in the domain of their expertise for Massive Open Online Course (MOOCs) has been sent to MHRD. A proposal for creating 10 courses for MOOCs such as in Plant Biotechnology, Genomics, Marine Biodiversity etc., are under progress

III. INITIATIVES TO IMPART AND DEVELOP COURSE CURRICULUM

1. Introduction to CBCS:

The University offers all its Courses/Programme under Choice Based Credit System for the University Students. Similarly, all the Engineering Courses (BTech and MTech) and Arts and Science (BA/BCom/BSc and MA/MSc/Mcom) offered in the affiliated Colleges are offered under Choice Based Credit System only.

2. Documentation of Certificates:

- Digitalizing the Examination related documents (old Registers and Certificates) and preserving the valuable documents.
- Examination Wing is in the process to scan all the Confidential Works (Question Paper related works) to enable them digitally available

3. National Academic Depository:

As part of the Digitalization Net Work of MHRD has entered into Agreement with the CDSL/VDSL in uploading the Statement of Marks, Consolidated Statement of Marks, Provisional Certificate and the Degree Certificate of all the Students.

IV. DIGITIAL INITIATIVES IN THE UNIVERSITY CAMPUS

	Digitization activity
1. Library	➢ MOU with INFLIBNET to upload the completely digitized Theses ➢ University is represented in the form of Shodhganga ETD committee ➢ **Value Added e-Services in Library:** OPAC, e-alerts, Referral Service, Citation Analysis, Subject Gateways, Open Sources, Document Delivery Service, Product Presentations and free trials, Web 2.0 Applications, Exhibitions, Digital Library & E-resources, Online Tutorials, Conferences/Seminars/Workshops, Webinars, Student Support "Earn While You Learn" Scheme, Remote Login, Institutional Repository, Computing Facility for Visually Challenged, Ask the Librarian Service & Discovery Service are available. Periodic update of Audio & Video galleries is being carried out in the library e sources. Louis Braille Centre available in the library enables the e learning process for visually challenged
2. Project Cell	➢ digitized Project cell to provide a single window system for the online application of the proposal as well as to transfer and management of funds. ➢ Receipt of the funds are updated when the investigator receives the funds from the funding agency. ➢ faculty members can monitor the project related activities and the real time stages of the processing.
3. **Online Leave Management System**	➢ online system is to bring down the time delay in leave application and approval. It also enhances transparency of leave records for the access of the employee anytime and anywhere.

	Digitization activity
4. EDUSAT Programs coordinated at Pondicherry University	➢ EDUSAT based distance learning program is also called the "e-learning" program enables the student avails the content of the course through the internet, stream the lectures using the internet and provides direct interaction with the teacher/expert when the lecture is delivered using EDUSAT satellite communication..
5. VIDWAN	A Nodal Officer for a NMEICT assisted project on "VIDWAN: Expert Database and National Researchers Network" for creating strong network of experts for various purpose of Govt. of India, initiated by the Information and Library Network (INFLIBNET) Centre.
6. Digitalizing the activities of the Finance Wing	➢ University Employees the salary part of the Finance Section is already computerized ➢ Employees can download Form-16 from the Pondicherry University Website on their own.
7. MHRD-Campus Connect Project	➢ Under MHRD program secured Wi-Fi hotspots provided to all the places frequented by the students. ➢ provides an access to the educational and information resources to the faculty and students community on 24x7 basis.
8. National Knowledge Network (NKN)– Project of Govt. of India	➢ NKN enables knowledge/ information sharing thereby establishing collaborative research, development and innovation amongst NKN connected institutes. ➢ NKN facilitates advanced distance learning (Video Conferencing through A – View).

Other digital initiatives in the University Campus:

- Payment of hostel fees through digital banking
- Biometric attendance system for contract and outsourcing personnel
- IP surveillance system/ IP security camera technology available in the campus to monitor the activities
- Employee management system (EMS) – provide the profiles of staff
- Use of Digi-locker facility, Digital India Initiative by GOI – personal storage of space in the cloud to Indian Citizens. Can upload scanned copies of original certificates during admission, recruitment etc.
- 30 Years Annual Report and 03 year Annual Account pdf documents are uploaded in the University website and the link has been available in the MHRD website under MHRD_Annual Reports.

TEZPUR UNIVERSITY

TEZPUR :: ASSAM



DIGITAL INITIATIVES AT TEZPUR UNIVERSITY

Prof. M. M. Sarma
Vice Chancellor

A: DIGITAL INITIATIVES

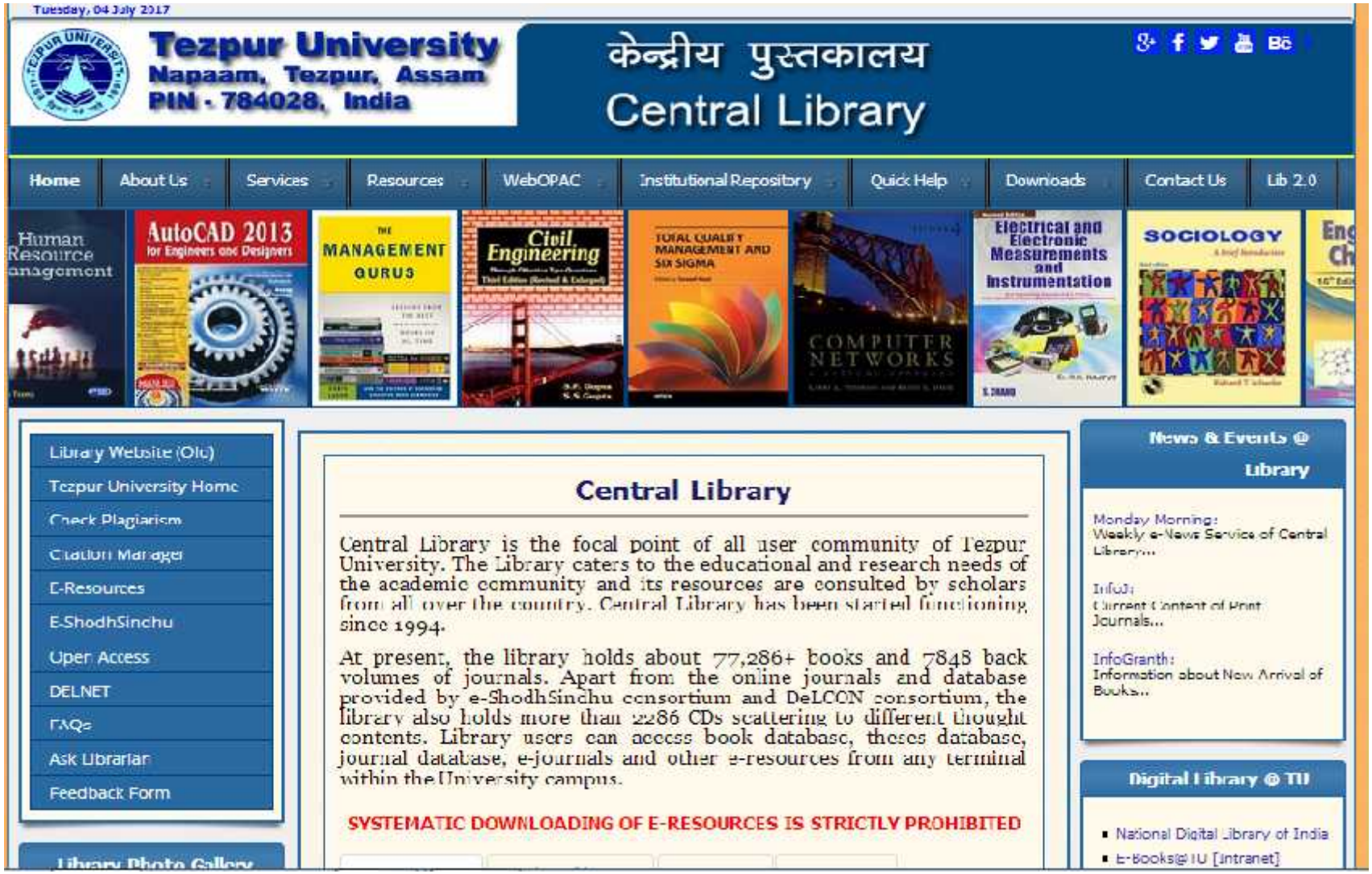
SWAYAM

- The University has identified a number of MOOCs courses from the SWAYAM portal and made provisions for including them in the existing curricula from the next semester onward. Accordingly, students and faculty members have been made aware of the facilities under SWAYAM MOOCs.
- 32 courses were proposed under MOOCs. We are still waiting for approval.

SWAYAM PRABHA

- Awareness has been created amongst the students about the Swayam Prabha. Students and research scholars have been informed about the programme individually through e-mail and web notification.

NDL Linked with TU Library



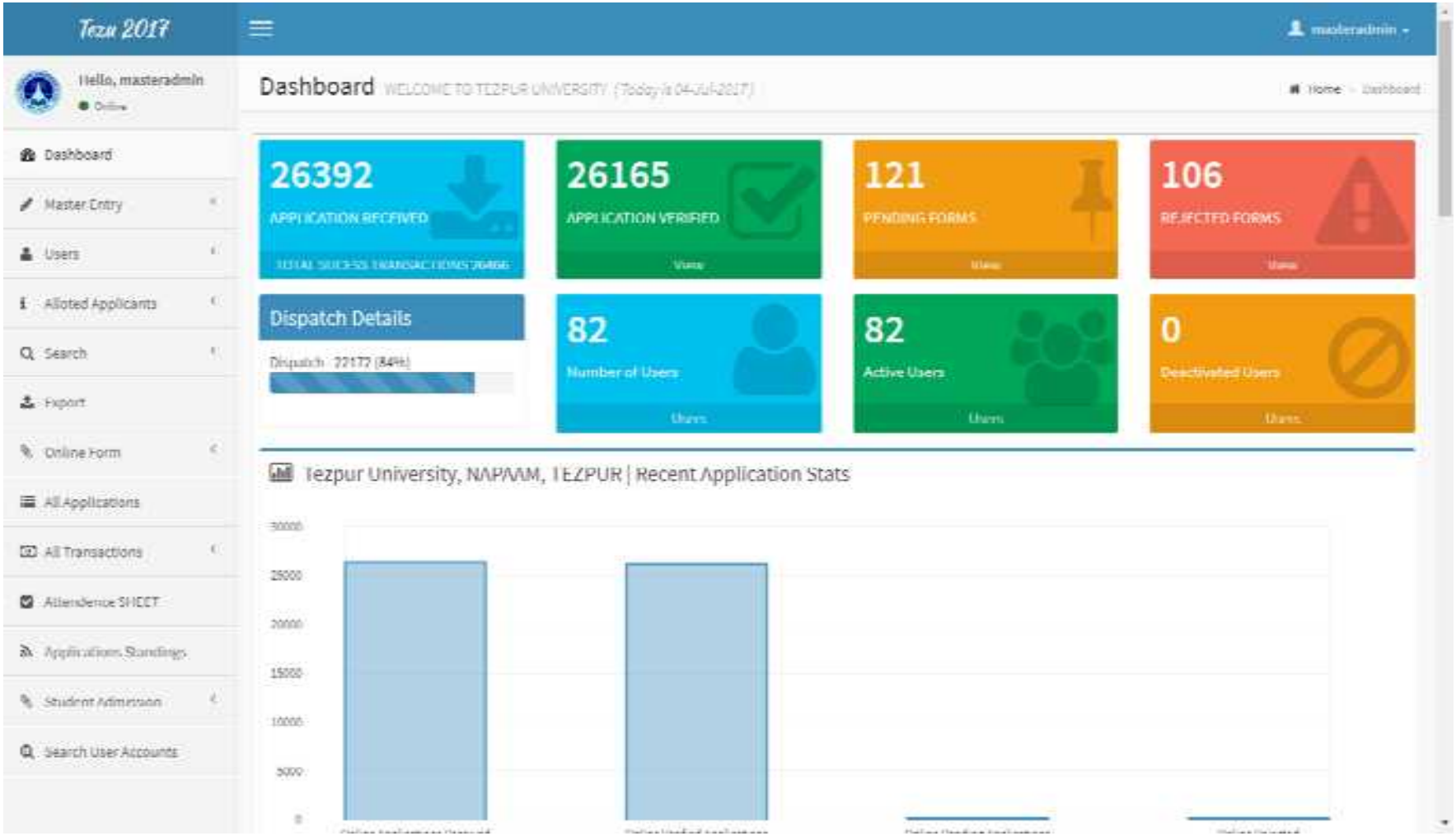
National Digital Library

- Awareness about NDL created
- The University encourages all members to register in the NDL, using the self-registration page.
- A total of 626 users including 331 students, 204 faculty members and 91 other staff of Tezpur University have already registered as users of NDL.
- TU provides access to
  - 9361 e-resources through e-Shodh Sindhu Consortia,
  - 1135 e-resources through DBT e-Library Consortia, and
  - e-resources (122 journals and 2 databases) through Central library's subscription.

National Academic Depository

- Tezpur University has signed an agreement for NAD with the National Securities Depository Limited (NSDL).
- Certificate template of this University has already been created by NSDL in consultation with the university.
- Certificate Data of 2015 have been sent to NSDL for final preparation of e certificates.

TU Entrance Examination and Admission Portal



Financial Applications, Finance Section



Research Project Fund Details Monitoring Application, Finance Section

Welcome

Project Fund Management System

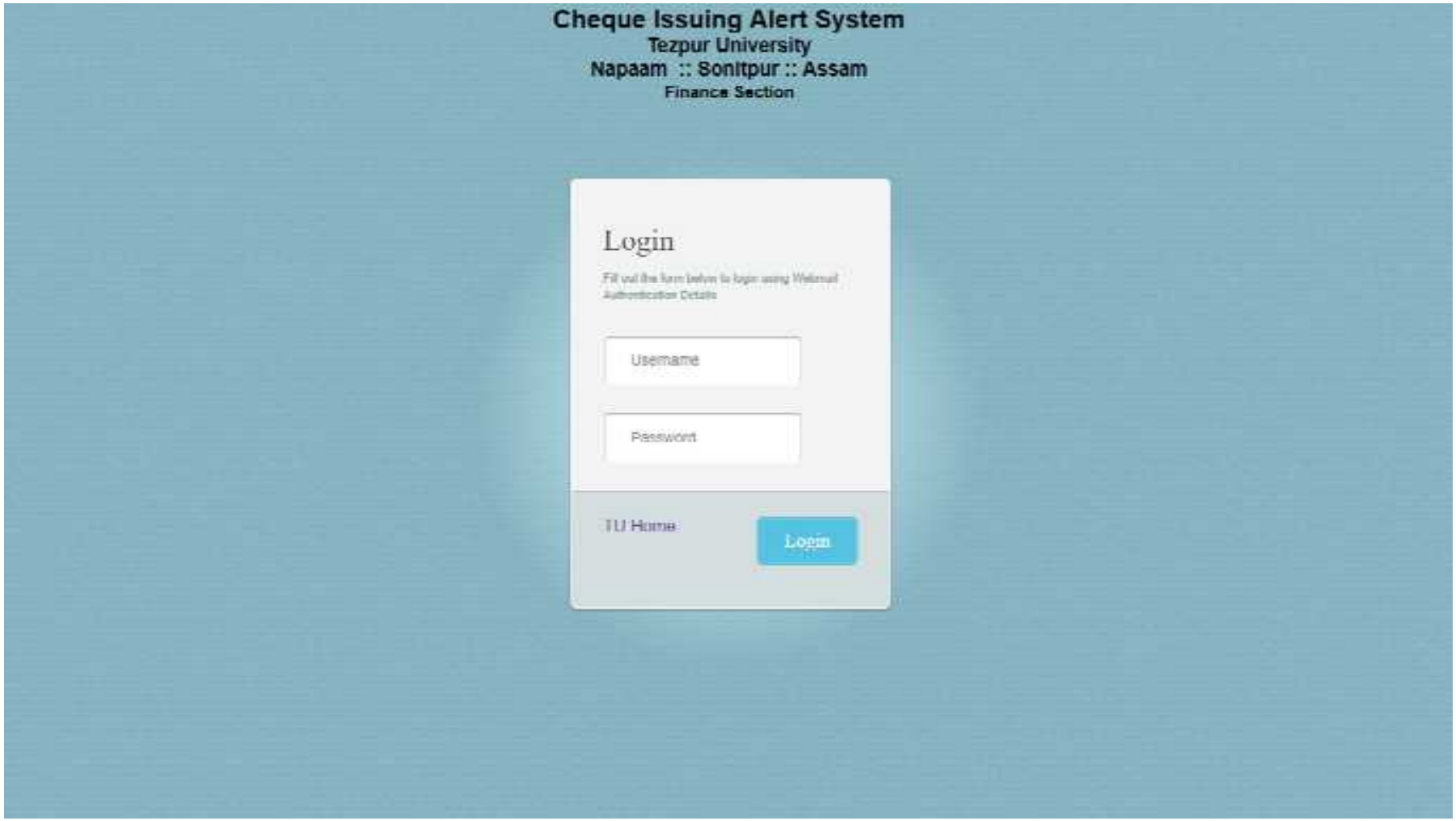
Tezpur University

Project Funding Details | Add New Project Funding Details | Logout

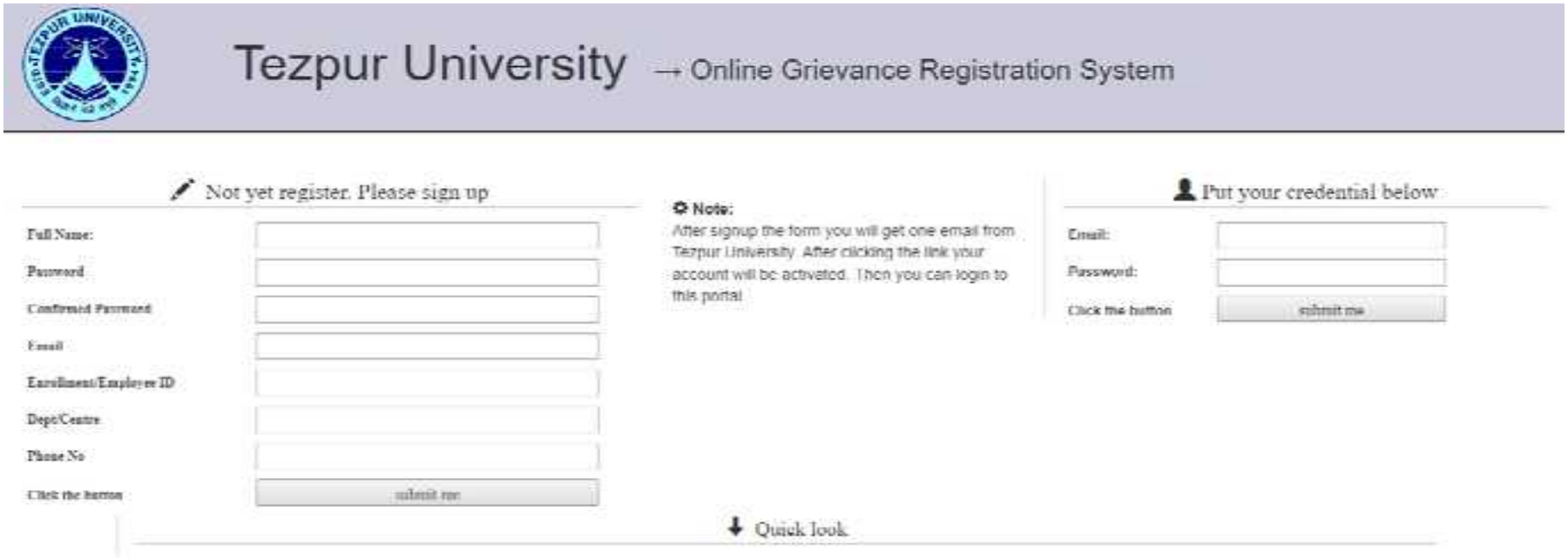
Project Head Name: UGC- SAP DRS-II- CHEMICAL SC

Sub Head	Particulars	Debit	Credit	Cheque No.	Record Entry Date
FUND	AMT RECV FROM UGCAOST SAP DRS-II, CHEMICALSCIENCES	0	900000		14-SEP-15
FUND	AMT RECV FOR SAPFOR ECE MBBT.CH SCNOW TRF TO A/C-6452	900000	0		14-SEP-15
FUND	AMT RECV FOR SAPFOR ECE MBBT.CH SCNOW TRF TO A/C-6452	0	900000		14-SEP-15
MISCELLANEOUS ADVANCE	ADV TO RC DEKA FOR WORKSHOP	50000	0	097461	06-NOV-15
CONTINGENCY	PAID TO KC ELECTRICAL FORAC REPAIRING	7248	0	097473	17-NOV-15
MISCELLANEOUS ADVANCE	ADV ADJ WITH RC DEKA FORCDCS-15 WORKSHOP	0	50000		07-DEC-15
SEMINAR/WORKSHOP	ADV ADJ WITH RC DEKA FORCDCS 15 WORKSHOP	50000	0		07-DEC-15
SEMINAR/WORKSHOP	PAID TO KRC PALACE,TU CHUTTAL SORA FOR SEMINER S.NO 950	50000	0	097533	23-DEC-15
VISITING FACULTY	PAID TO KRC PALACE,TU CHUTTAL SORA FOR SEMINER S.NO 950	50000	0	097533	23-DEC-15
MISCELLANEOUS ADVANCE	ADV TO RC DEKA FOR TA	20000	0	097030	09-FEB-16
CONTINGENCY	PAID TO KC ELECTRICALFOR REPAIRING S.NO 1023	5320	0	097638	10-FEB-16
CONSUMABLES	PAID TO ASSAM CHEMICALS & INSTRUMENT FOR CHEMI S.NO940	205613	0	097664	25-FEB-16
MISCELLANEOUS ADVANCE	ADV TO RC DEKA FOR MEETING	20000	0	097704	14-MAR-16
VISITING FACULTY	PAID TO B VISWANATHAN FORTA & REMUNERATION	22004	0	097723	18-MAR-16
CONSUMABLES	PAID TO ZENITH FOR CHEMIS NO.940	118081	0		21-MAR-16
CONSUMABLES	PAID TO RELIED ENTP FORCHEMICALS S.NO 940	176280	0	990050	31-MAR-16
[illegible]	[illegible]	[illegible]	0	[illegible]	[illegible]

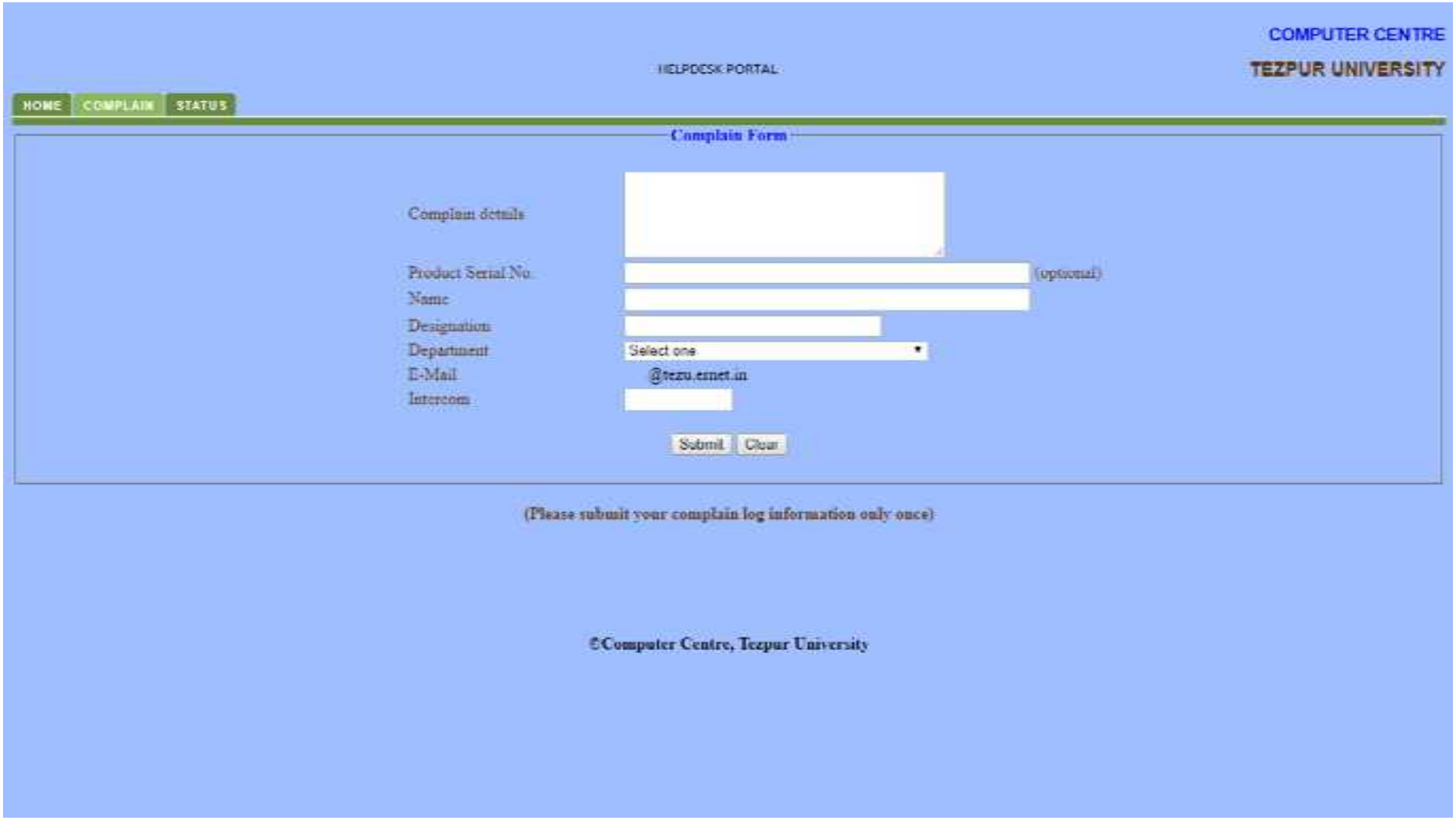
Cheque Issuing Alert System, Finance Section



Online Grievance Registration System, Tezpur University



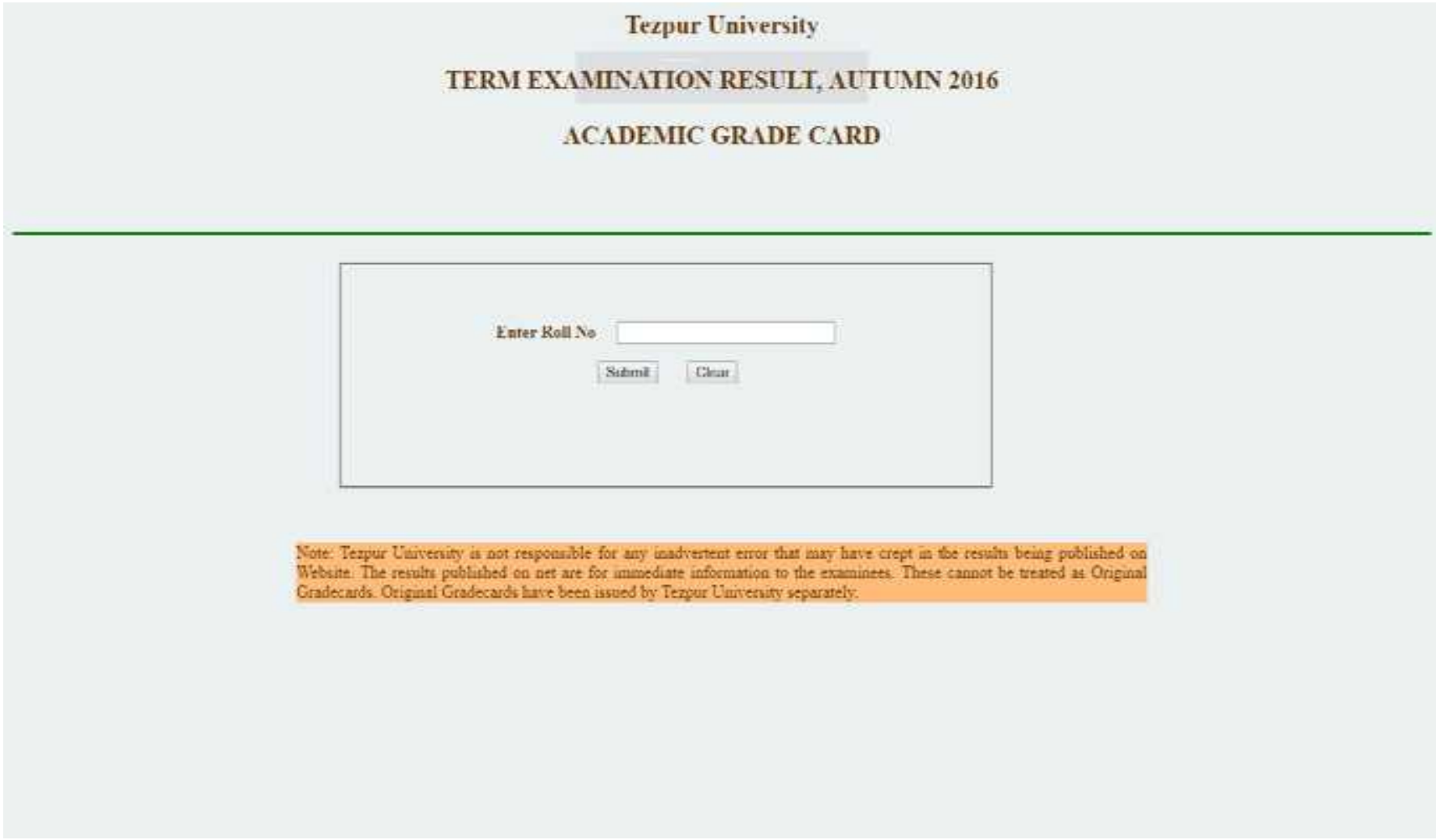
Helpdesk Portal, Computer Centre



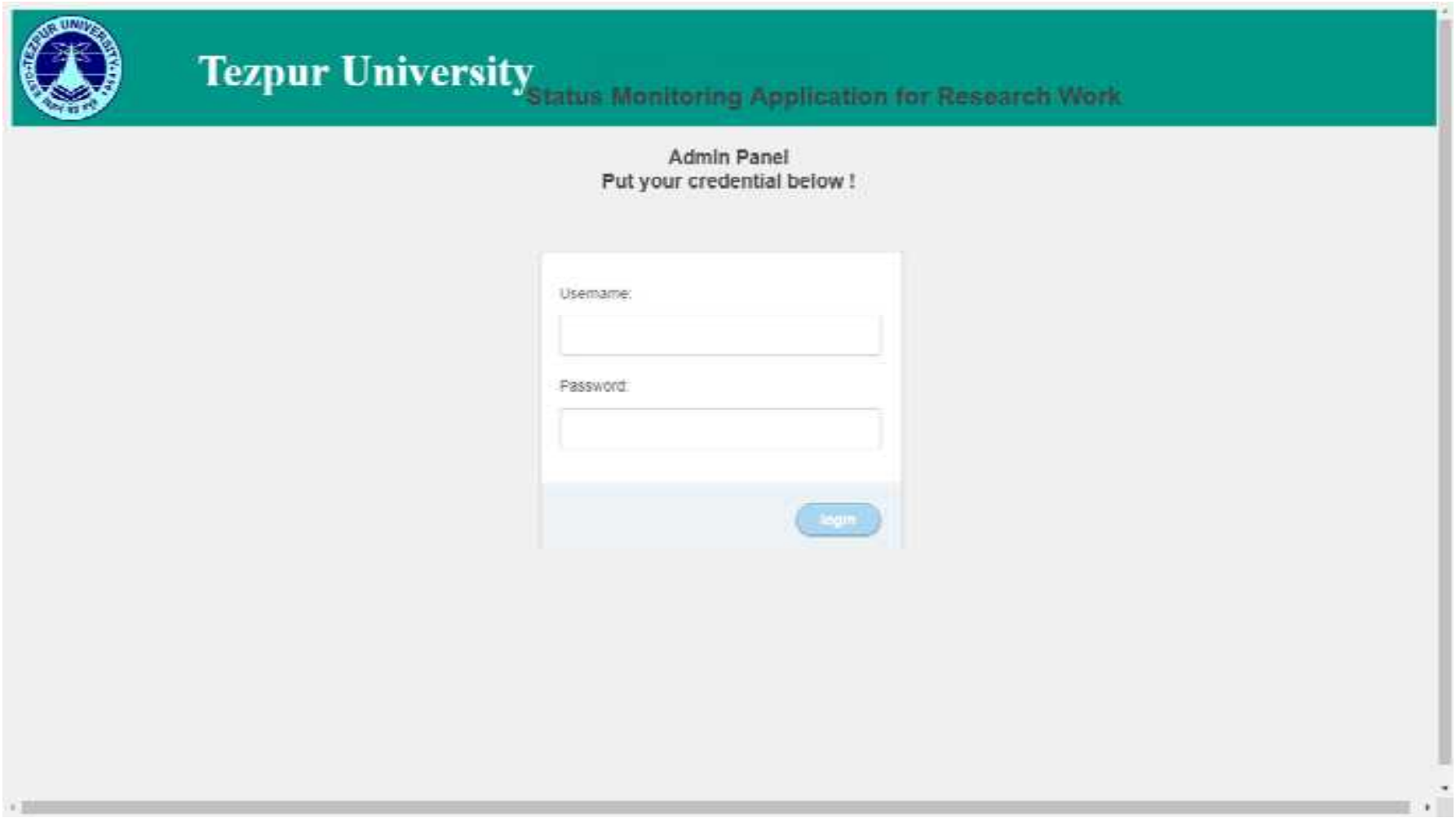
Online Leave Application and Approval System



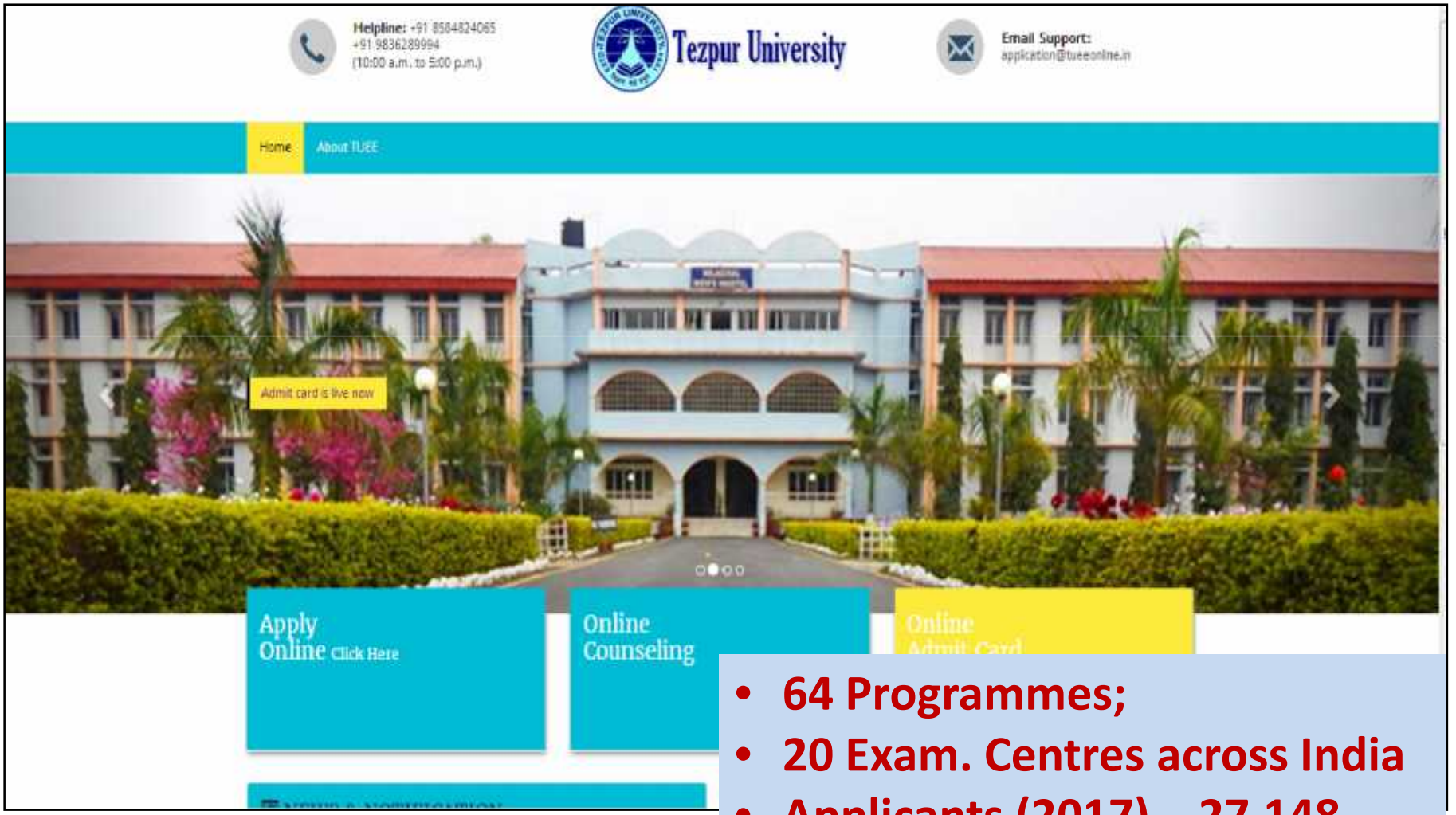
Online Term-End Examination Grade Card Generation System, Academic Section



Status Tracking tool for PhD Thesis Submission, Academic Section



TU Online Admission Portal



- **64 Programmes;**
- **20 Exam. Centres across India**
- **Applicants (2017) – 27,148**

B : INNOVATIONS IN IMPROVING ADMINISTRATION

- Automation of administrative activities (60% approx.)
- Single window information system.
- Braille version of *TU Information Brochure* for the benefit of visually impaired people.
- University website accessible to people with multiple disabilities .
- Student-friendly ambience in offices.

C : MEASURES FOR PROMOTING RESEARCH

- Star-up grant to young faculty to start research before getting any project.
- 50% of the overhead surcharge given back to the faculty for research.
- Offering fellowships to research scholars by the University.
- Encouraging faculty to go for collaborative research aimed at fulfilling societal needs.
- *Research semester break* to devote time to research.

D : Outreach programmes…



Crematorium at Napaam



Water and platform at Kabarsthan, Amolapam

A two-day training prog. on Management Information System (MIS) for tea gardens



…outreach programmes

*** An Entry Gate to Napam MV School**



Dresses to needy children of nearby villages



…outreach programmes

A programme on health and hygiene





A Public Toilet Complex at Napaam

Career counseling for village youths



…outreach programmes



- Adopted three villages : *Amolapam*, *Jaawani* and *Napaam* and developmental activities are being carried out in consultation with the National Institute of Rural Development & Public Relations (NIRD&PR), Guwahati.
- Adoption of two more villages are in process.
- Arsenic and fluoride removal from ground water through innovative methods undertaken by Prof. Robin Kr. Dutta in Assam, Telengana, Rajasthan, Madhya Pradesh, Bihar and Uttar Pradesh.

E : SWACHCH BHARAT ABHIYAN



- Students, faculty and staff engaged in cleaning of hostel, office and public premises in the campus.
- All volunteers of NSS and NCC hold sensitization meeting with the citizens and dwellers on imparting message of cleanliness and sanitation among their children.

…Swachch Bharat Abhiyan

- Swachh Bharat Abhiyaan programme conducted with Students and Teachers of the Jaawani Primary School
- Conducted cleanliness drive near main Bus Stand inside/outside the University by NSS volunteers and NCC cadets.
- Swachhta Pakhwada observed on the occasion of Children's Day.



F : EK BHARAT SHRESTHA BHARAT

- In pursuance of the MHRD directives, Tezpur University has already communicated and proposed to the JNU, JMI and University of Delhi for following activities.
  - Exchange of students of Tezpur University and organization of cultural programmes and adventure sports camp with their universities.
  - Organising dance, culinary festival of Assam in the above mentioned universities.
  - Organising photography exhibition on Assam's heritage and history in various places of Delhi.
  - Tezpur University would like to organize a NSS camp for student volunteers from the above mentioned universities in TU campus.

- Apart from the above, the NSS Cell, TU, has organized two awareness sessions on diversity and unity in India.
- TU NSS cell has also chalked out plans for various other programmes like study tour to Delhi's historical places after the summer break.

G : UNNAT BHARAT ABHIYAN

- Project to generate energy from the locally available Biomass resources for electrification, cooking, irrigation, Agro-industry, etc.

- Biogas plants in 32 households at Jaawani Village.

- A project “Using Folklore for Community Messaging: Adolescents as Agents for Social Development and Empowerment” in collaboration with UNICEF.

H : REDUCING LEGAL CASES

- Transparency in administration and strict adherence to rules.
- Democratic methods of decision making.
- Proactive measures
- Conflict resolution through negotiations

I : PROMOTING QUALITY OF TEACHING

- Preparation of teaching plan of each course by each faculty
- Analysis of students' and other stakeholders' feedback with appropriate follow-up action.
- Use of ICT in teaching.
- Regular updating of course curricula.
- Students' engagement.

J : FUTURE PLANS

Summary of 3-Year Action Plan

1	**Buildings proposed**	**2017-18**	**2018-19**	**2019-20**
	School of Engineering	3	2	Residential quarters Nursing Library and Information Sciences and others
	School of Science	1	2	
	School of Humanities and Social Sciences	1	2	
	School of Management Sciences	1	2	
	Hostels	3		
	Lecture Theatre Complex	-	1	
2	Campus development	Sewage treatment plant and Drainage Waste disposal Cycle stand	Water treatment plant Stadium	Internal roads Electrification
3	Fund for library			
	Central Library	40%	30%	30%
	Departmental Library	40%	30%	30%
4	Equipment: 04 Schools and Centres	60%	25%	15%
5	New Research Activities 04 Schools	SoE-4 SoS-3	SoE-3,SoS-2, SoHSS-5, SoMSc-1	SoHSS-5, SoMsc-1
6	New Extension and outreach activities -- 14 departments and centres			
7	ICT Requirements	60%	30%	10%
8	IQAC	40%	30%	30%
9	Jubilee grant	Silver Jubilee Convention Hall	Renovation of academic bldgs	Renovation of academic bldgs
10	Student Amenities	Multipurpose indoor hall	Multipurpose indoor hall	Gymnasium Hall

7 Years Strategic Plan

SN	Action Plan	Objective
1.	To develop the proposed Jonai Campus of TU at Jonai in the Dhemaji district of Assam.	To usher in a era of overall development through education in this border area of Upper Assam.
2.	To create Centre for Skill Development	To enhance the employability of local youths and encourage entrepreneurship.
3.	To contribute enhance the national GER by increasing intake	To widen the horizon of opportunities
4.	To create a Centre for South East Asian Studies	1. Cultural exchange; 2. To study the feasibility of mutual trade and commerce through skill development
5.	To tap the natural resources of the North East India by creating relevant departments/centres	The enormous natural resources of NER will be appropriately tapped.

15 Years Vision

SN	ACTION PLAN
1.	To see Tezpur University as one of the most preferred destinations of students and faculty in India and beyond for higher education and research
2.	To nurture Tezpur University as one of the top 50 universities of the world.
3.	To see TU as a major catalyst for socio-cultural and intellectual development of the region contributing to the overall development of the nation.
4.	To make meaningful contribution to overcome the major recurrent natural calamities like flood and earthquake in the NE Region through relevant research and innovations.
5.	To focus on area-specific research aimed at meeting the nation's needs.



Thank You

No. TU/VC/2017
Date:

A Note on Digital and other Initiatives at Tezpur University

A. DIGITAL INITIATIVES

1. SWAYAM

The University has identified a number of MOOCS courses from the SWAYAM portal and made provisions for including them in the existing curricula from the next semester onward. Accordingly, students and faculty members have been made aware of the facilities under SWAYAM MOOCS.

17 departments and centres of the University have proposed 32 courses under MOOCS .We are still waiting for approval from the UGC.

2. SWAYAM PRABHA

The University has created awareness amongst the students about the SwayamPrabha. Students and research scholars have been informed about the programme individually through e-mail and web notification.

3. NDL(NATIONAL DIGITAL LIBRARY)

The University has created awareness about National Digital Library (NDL) of India amongst all user communities (students, research scholars, faculty members, non-teaching staff and other supporting staff). The University has also collected relevant data, as required by the NDL, of students, faculty members and other staff of Tezpur University and sent these to the NDL hosting centre at IIT, Kharagpur in the month of February 2016. A total of 626 users including 331 students, 204 faculty members and 91 other staff of Tezpur University have already registered as users of NDL. The University is encouraging all members to register in the NDL, using the self-registration page.

In addition to this, Tezpur University has provided access to 9361 e-resources (including journals and databases) through e-Shodh Sindhu Consortia, 1135 e-resources (including journals and databases) through DBT e-Library Consortia, and e-resources (122 journals and 2 databases) through Central library's subscription.

4. NAD(NATIONAL ACADEMIC DEPOSITORY)

Tezpur University has signed an agreement for NAD with the National Securities Depository Limited (NSDL).

Certificate template of this University has already been created by NSDL in consultation with the university.

Certificate Data of 2015 have been sent to NSDL for final preparation of e certificates.

B. OTHER DIGITAL INITIATIVES

Campus-wide internet facility through wi-fi as well as LAN

1. ACADEMIC

Tezpur University has created facilities foronline submission of application for admission into 64(sixty four) programmes conducted by the University. The process started this year and altogether 27148 applications were received online. Facilities were also created for online payment of fees.There was also provision foronline generation of admit cards for the admission test.

The admission test for 64 programmes was conducted online in 20 centers across the country.

Evaluation and declaration of results was also online.

Admission is conducted after physical verification of documents of the selected candidates. After that roll numbers and other relevant information are fed into software and are merged with examination software.

All relevant information on academic matters are made available on online/website. The university has also provision for online Ph.D thesis tracking system (after submission) and declaration of semester-end results.

Information regarding the availability of book/journals in the Library etc. can be obtained by the users online.

2. ADMINISTRATIVE

The university has provision for online tracking of monthly salary and arrears, cheque issuing alert system, income tax management and on line project management system.

The employees can apply for CL& Restricted Holiday through on line Leave Application and Approval System and Duty leave via e mail.

There is a portal for online Grievance Registration system and a Help desk portalmanaged by the Computer Centre for receiving any complaint related to their system and other internet related problems.

Accommodation in the University Guesthouse can be booked online.

C. INNOVATIONS IN IMPROVING ADMINISTRATION

About sixty percent of the administrative workflows of the University have been automated. The University has been following a single window information system.

The University has made the Braille version of *TU Information Brochure* for the benefit of visually impaired people and made its website accessible to people with multiple disabilities.

The University maintains aStudent-friendly ambience in offices.

D. MEASURES FOR PROMOTING RESEARCH

The newly recruited members of the faculty are provided with *start-up grants* for setting up laboratories and carry out research before getting any project. The University gives back fifty percent of the overhead surcharge on projects to the faculty for spending on further research.

The University gives emphasis on experimental laboratories and undergraduate research. The students and faculty are given incentives for cutting-edge research. The University also offers fellowships to research scholars.

The University encourages the faculty to take up collaborative research at national and international level, some of them at fulfilling societal needs.

The University encourages the faculty to go for *Research semester break* so that they can devote more quality time to research.

E. OUTREACH PROGRAMMES

Unnat Bharat Abhiyan :The outreach programmes of the University are carried out through the Centre for Inclusive Development (CID). Apart from the general community development activities, the University has already adopted three villages *Amolapam*,*Jawoni*and*Napaam* where developmental activities are being carried out as per a phase-wise development plan prepared in consultation with the Indian Institute of Rural Development &Panchayati Raj, North East Centre.

The Department of Energy of the University has taken up a project at village Jaawani under which energy will be generated from the locally available Biomass resources and utilized for electrification, cooking, irrigation, Agro-industry, etc. Two (02) Plants – Anaerobic Digestion Plant & Gasification Plant are in the process of installation for generating and distributing the Energy through pipelines.

Works on the installation of biogas plants in 32 households at Jawani Village have started. The installation works will complete in about three weeks.

The Department of Cultural Studies in collaboration with UNICEF took up a project titled “UsingFolklore for Community Messaging: Adolescents as Agents for SocialDevelopment and Empowerment” to realize social change and development by disseminating knowledge fordevelopment through the available folk art forms of five ethniccommunities of the erstwhile SivasagarDistrict of Assam. The following major social maladies were addressed: School dropouts (reduction), Early marriages prevention), Substance misuse, Mental health, Health – family planning, Sanitation and Nutrition.

SwachchBharatAbhiyan

Students, faculty and staff are engaged in cleaning of hostel, office and public premises in the campus from time to time. All volunteers of NSS and NCC hold sensitization meeting with the citizens and dwellers on imparting message of cleanliness and sanitation among their children often.

Swachh Bharat Abhiyaanprogramme was conducted with Students and Teachers of the JaawaniPrimary School.

SwachhtaPakhwada observed on the occasion of Children's Day.

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In pursuance of the MHRD directives, Tezpur University has already communicated and proposed to the JNU, JMI and University of Delhi for following activities:

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Apart from the above, the NSS Cell, TU, has organized two awareness sessions on diversity and unity in India.

TU NSS cell has also chalked out plans for various other programmes like study tour to Delhi's historical places after the summer break.

F. REDUCING LEGAL CASES

The University has been taking the following measures to reduce legal cases:

Maintaining transparency at various levels in administration and strictly adhering to rules,
Adopting democratic methods of decision making in administration and at the departmental level,
Adopting Proactive measures as soon as complications are visualized,
Trying to resolve conflicts through negotiations

G. PROMOTING QUALITY OF TEACHING

Each faculty prepares teaching and lesson plansfor each course and announces/distributes these at the beginning of the classes by each faculty.

The faculty analyses students' and other stakeholders' feedback periodically and take appropriate follow-up action.

The faculty use ICT in teaching wherever possible or necessary.
All the departments regularly revise and update the course curricula taking into account the views and concerns of students, guardians and employers.

H. FUTURE PLANS

3 YEAR ACTION PLAN

Sub-heads of Requirements			
Buildings proposed	**2017-18**	**2018-19**	**2019-20**
School of Engineering	**3**	**2**	**Residential quarters Nursing Library and Information Sciences and others**
School of Science	**1**	**2**	
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School of Management Sciences	**1**	**2**	
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Lecture Theatre Complex	**-**	**1**	
Campus development	**Sewage treatment plant and Drainage Waste disposal Cycle stand**	**Water treatment plant Stadium**	**Internal roads Electrification**
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New Research Activities 04 Schools	**SoE-4 SoS-3**	**SoE-3,SoS-2, SoHSS-5, SoMSc-1**	**SoHSS-5, SoMsc-1**
New Extension and outreach activities -- 14 departments and centres			
ICT Requirements	**60%**	**30%**	**10%**
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Jubilee grant	**Silver Jubilee Convention Hall**	**Renovation of academic bldgs**	**Renovation of academic bldgs**
Student Amenities	**Multipurpose indoor hall**	**Multipurpose indoor hall**	**Gymnasium Hall**

7 YEARS STRATEGIC PLAN

a. To contribute to enhance the national GER by increasing intake for widening the horizon of opportunities
b. To create Centre for Skill Development for enhancing the employability of local youths and encourage entrepreneurship.
c. To create a Centre for South East Asian Studies for Cultural exchange and to study the feasibility of mutual trade and commerce through skill development.

d. To tap the natural resources of the North East India by creating relevant departments/centres
e. To develop the proposed Jonai Campus of TU at Jonai in the Dhemaji district of Assam.

15 YEARS VISION

To see Tezpur University as one of the most preferred destinations of students, faculty and scholars in India and beyond for higher education and research.

To nurture Tezpur University as one of the top 50 universities of the world.

To see TU as a major catalyst for socio-cultural and intellectual development of the region, contributing to the overall development of the nation.

To make meaningful contribution to overcome the major recurrent natural calamities like flood and earthquake in the NE Region through relevant research and innovations.

To focus on area-specific research aimed at meeting the nation's needs.

Best Practices/Innovations at Tezpur University

1. **Measures for Promoting Research**

In order to create a conducive atmosphere for research and encourage the young faculty to take up research from the day she/he joins the profession the University offers Start-up grants to young faculty to start research before applying for or getting any project.

The University has adopted the policy of giving back fifty percent of the overhead surcharge on research projects to the concerned faculty to encourage continuing research.

Apart from the fellowships received from the funding agencies the University offers a limited number of fellowships to such Ph.D. students who do not get any fellowship.

The University encourages the faculty to take up collaborative research with researchers of reputed institutions from other parts of the country and abroad and tries to ensure that at least some of such projects are likely to yield results that may fulfil societal needs.

The University has created provisions for *research semester break*which a faculty can availin order to devote more quality time to researchsince she/he is free from classes and other academic assignments for one semester.

2. **Major efforts at engaging with the Community for Improving the Quality of Life/Livelihood**

The University has adopted three villages*Amolapam*, *Jaawani* and *Napaam.* Developmental activities in these villages are being carried out in consultation with the National Institute of Rural Development & Public Relations (NIRD&PR), Guwahati.

The University has taken up a Project at Jaawani village to generate energy from the locally available Biomass resources for electrification, cooking, irrigation, Agro-industry, etc. Work on installing Biogas plants in 32 households at Jaawani village has already started.

A faculty of the University by Prof. Robin Kr. Dutta has already started work on a project involving removal of Arsenic and Fluoride from ground water through innovative methods (already patented by him) in Assam, Telengana, Rajasthan, Madhya Pradesh, Bihar and Uttar Pradesh.

The department of English and Foreign Languages has been working on documentation of endangered languages of the region and supporting the community's efforts at language maintenance and producing materials (including dictionaries and primers) to be used by the children/ speakers of the community.

Innovative Measures and Reforms in Tripura University

Presented by
ANJAN K. GHOSH
Vice Chancellor
Tripura University

Innovative Measures and Reforms since 2013

- Digital Library with ebooks and journals
- Library Automation
- Wi-Fi in all Buildings and Hostels
- Innovation Club
- Inspiring Teacher's Group
- Upgradation of Central Instrument Centre
- Automation of financial and accounting
- Establishing Faculty Development Centre
- 2 B.Voc programs in Skill Developments (Rubber Technology and Film and Video Production)

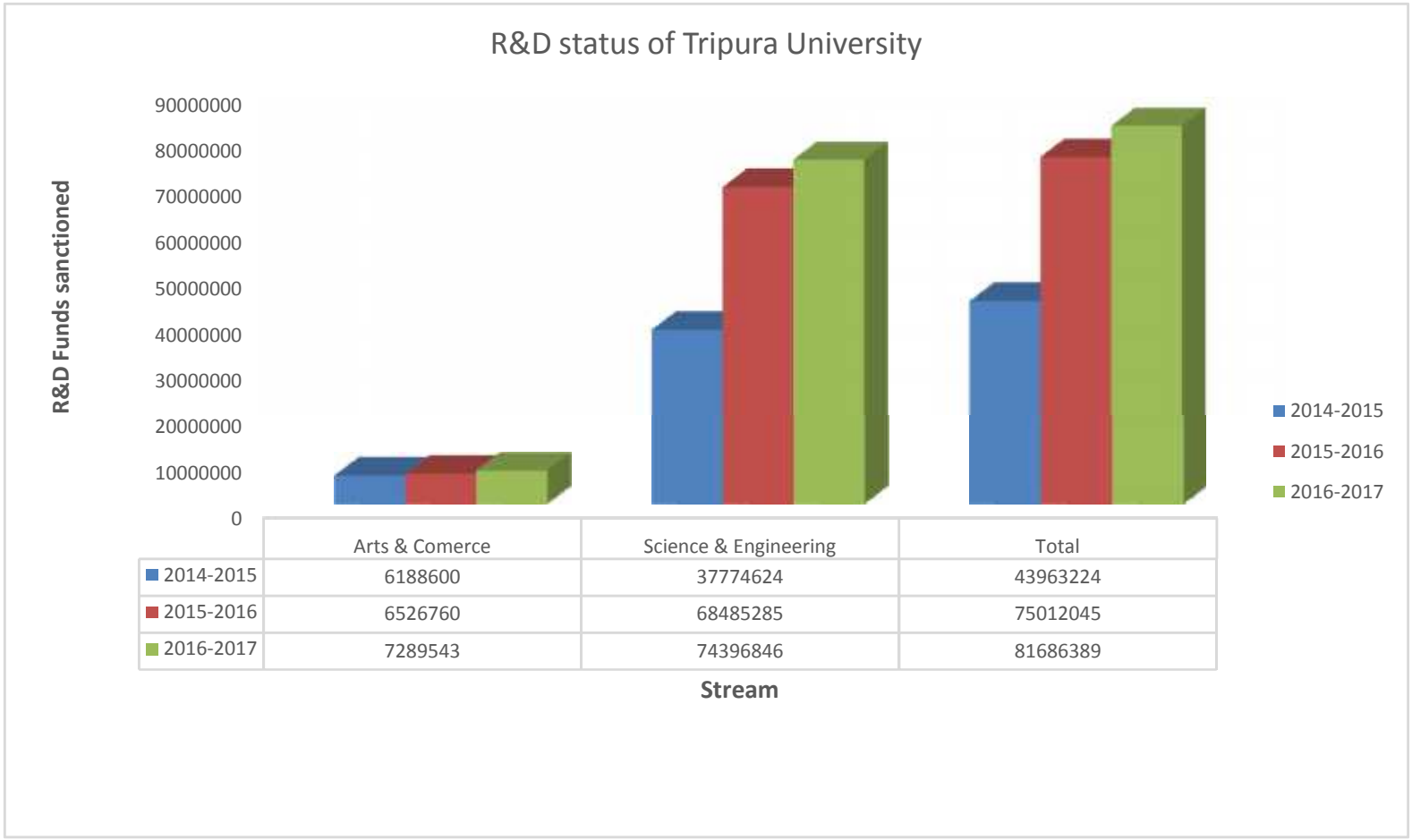
Innovative Measures and Reforms since 2013

- Online Admission Process
- Modernization of PhD rules following UGC
- Encouragement on Attending and Organizing Seminars/Conferences
- Use of NPTEL and MOOC courses
- Development of a few MOOCs
- Use of “Brihaspati” – online course management
- Virtual and e-class rooms
- CBCS

Innovative Measures and Reforms since 2013 (contd.)

- Use of anti-plagiarism software
- PhD in all Depts. and Increase in the number of PhD Scholars
- New Depts.: Engineering (3),Tribal Languages, Indigenous Languages, Linguistics, Library and Information Science, School of Education
- Swachha Bharat Programs
- Adoption of 6 Villages
- Women's Studies and Women's Association
- New Research and Innovation/IPR Policy Adoped

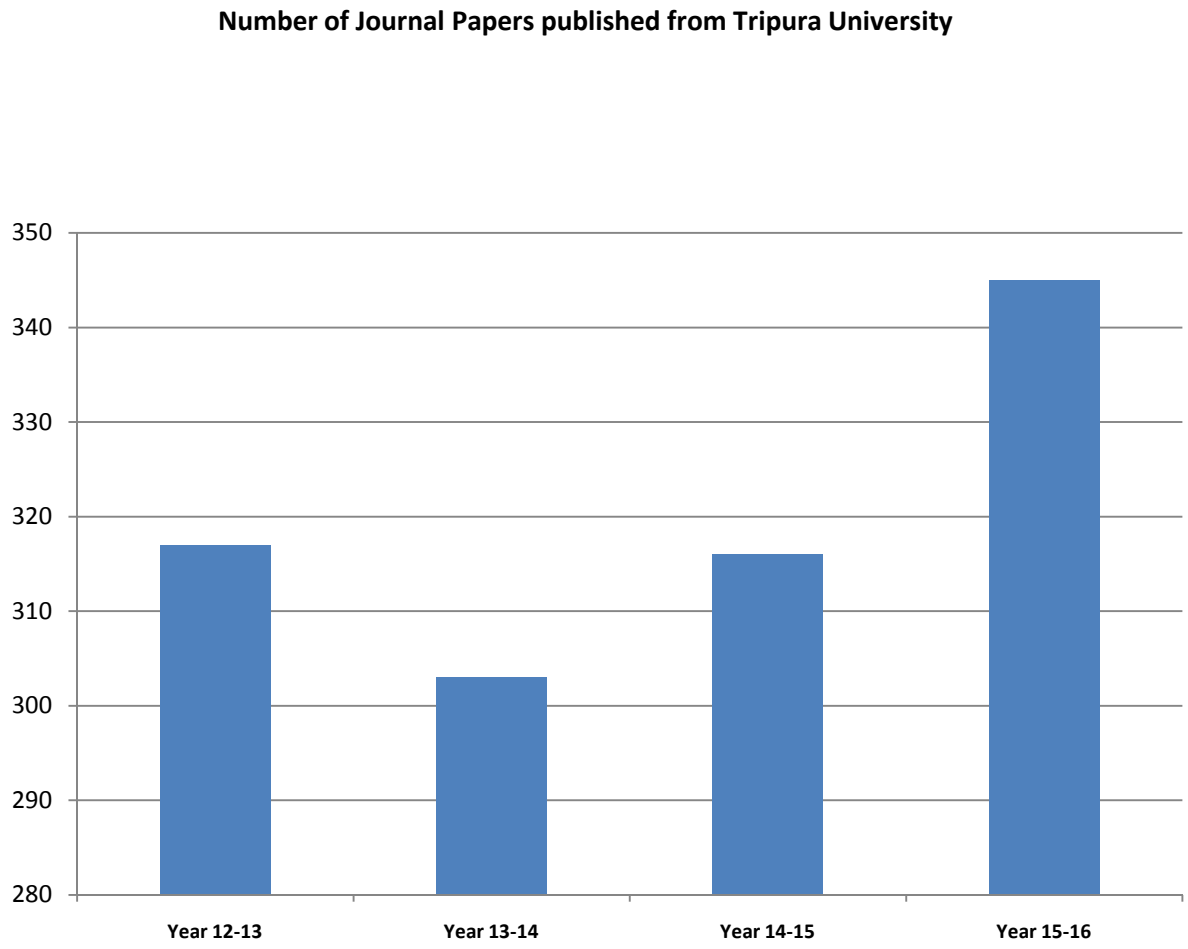
Improvements in Research



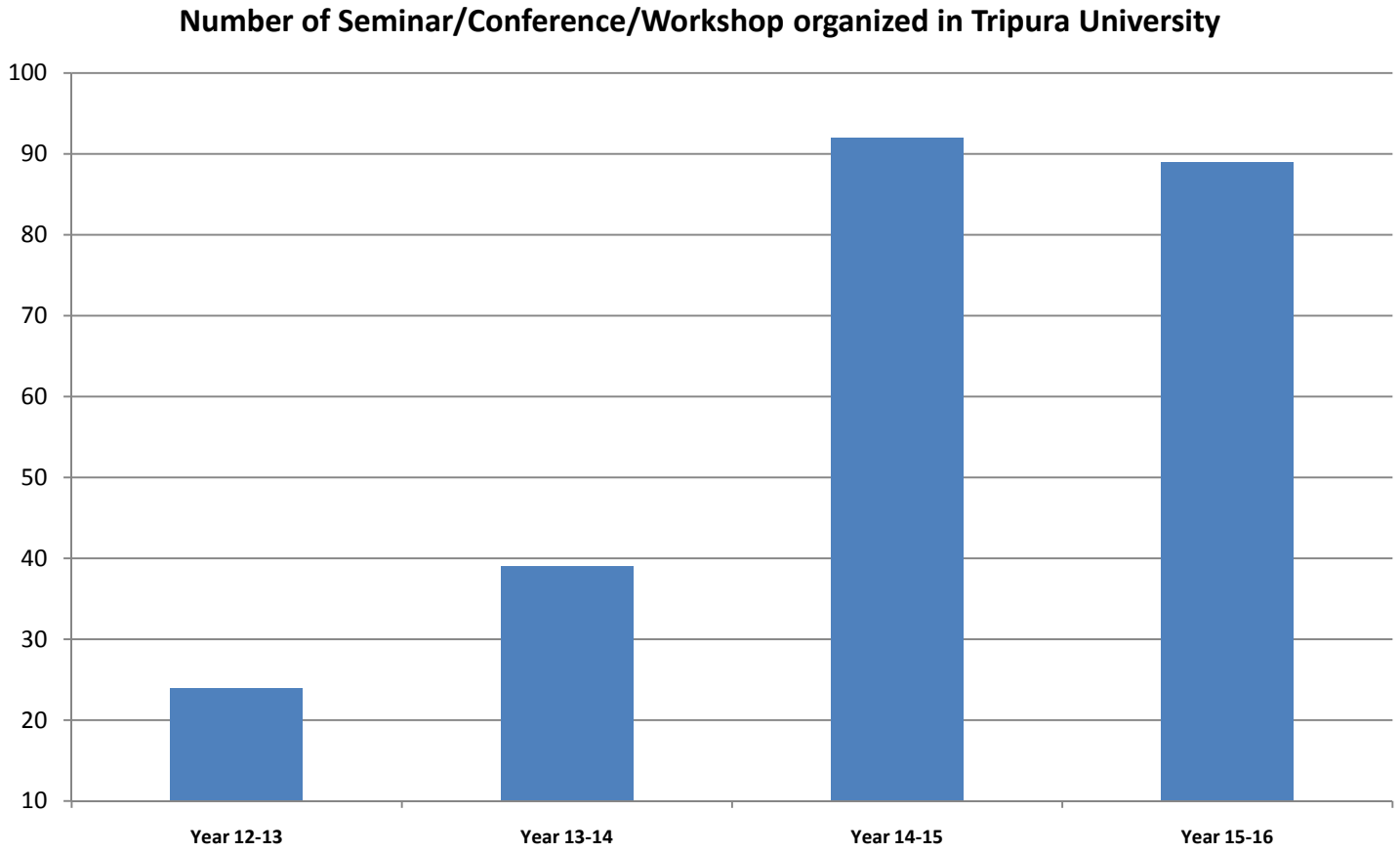
	Arts & Comerce	Science & Engineering	Total
2014-2015	6188600	37774624	43963224
2015-2016	6526760	68485285	75012045
2016-2017	7289543	74396846	81686389

Number of Patents filed = 3

More Publications



Conferences Held in Tripura University



Initiatives on Higher Education

- Adopted as many Initiatives of Visitor, MHRD and UGC as possible
- Difficulties faced:
  - Remoteness
  - Supply and Services
  - Lack of Expertise

Thank you

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Santiniketan

July 2017

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

SWAYAM

- The Academic Council in accordance with UGC's SWAYAM Regulation 2016 is considering the online courses being offered through the SWAYAM platform to decide upon the courses to be permitted for credit transfer.
- The University will ensure that adequate physical facilities like laboratories, computer facilities, library, etc. will be made available for free to the students pursuing online courses offered by SWAYAM.
- The University will designate a course coordinator to guide the students throughout the course and to facilitate/conduct the Lab/practical sessions/examinations
- The University is planning to offer MOOCs in Rabindra Sangit soon.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

SWAYAM Prabha

- The University has provided large screen TV sets in every hostel and designated classrooms to be used by students for watching SWAYAM Prabha DTH channels when it is launched.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

National Digital Library

- Visva-Bharati has put 29689 old and rare books in its collection on NDL
- Rapidly growing user base at Visva-Bharati with over 1000 individual enrolments till date in NDL.

E-Shodh Sindhu

- 1,15,837 hits from Visva-Bharati via https://www.inflibnet.ac.in/ess/eres.php?memID=100

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

National Academic Depository

- NAD Joining Form with NSDL signed in December 2016
- The list of courses and sample certificate data provided to NSDL for on-boarding.
- Visva-Bharati has opted for Certificate Image model.
- Approximately 2000 certificates are issued every year.
- Legacy certificates of last 4 years are ready for verification.
- Digital signature certificate is being obtained.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Campus Connectivity

- 1Gbps NKN PoP functioning since February 2011 connecting 65 buildings.
- Work on passive networking for Wi-Fi-enabled campus commenced in January 2017
  - *140 buildings are to be connected.*
  - *12.5 km optical fibre has been laid so far. 55 kms remain.*
  - *UTP cabling done in 109 buildings*
  - *Sought MHRD's approval to procure switches, security equipment and additional passive components from NICSI to complete the project since the existing LAN is more than 10 years old and might collapse anytime. The same was agreed upon.*

- Purchase Order for campus Wi-Fi placed on RailTel on 27 February 2017
  - *Site Survey done in May 2017*
  - *List of access points (427) to be deployed across the campus approved June 2017*
  - *Work expected to commence soon*

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Digital Content Creation

- Digitisation of the Tagore Archives and Library comprising manuscripts, life time print editions, paintings, still photographs, audio and video recordings including
  - *Over 40,000 pages of manuscripts*
  - *1601 paintings by Rabindranath*
  - *10,000 photographs*
  - *Old cine films including documentaries and news clips featuring Tagore*
  - *Over 3500 Tagore songs sung by noted singers of yesteryears.*
- The Bichitra Tagore Online Variorum Project (http://bichitra.jdvu.ac.in) funded by the Ministry of Culture at Jadavpur University is based on the aforementioned resources.
- Over 15,000 original paintings and art objects at the Kala-Bhavana Museum have been digitised.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Vittiya Saksharta Abhiyan (VISAKA)

- Students were asked to enrol as volunteers to educate their family members and people in their immediate surroundings and motivate them for digital transactions.
- In-house training sessions were organised for student volunteers with assistance from Public Sector banks.
- Visva-Bharati was amongst the top ten institutions nationwide with 510 students enrolling themselves as volunteers.

E-Procurement: CPPP & GeM

- The University is taking necessary steps to join the Central Public Procurement Portal soon.
- The University is also taking necessary steps to commence procuring from GeM

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Measures for Promoting Research

- Research start up grant for newly-joined Assistant Professors
- Numerous research projects including UGC DST, ICAR, UGC-UKIERI
- MoUs signed with global universities from China, Japan, Spain, Mauritius, Australia and Switzerland
- Strong emphasis on interdisciplinary research

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Involving with the Community for Improving Livelihoods

- 50 villages adopted by the University in keeping with Tagore's ideals
- Community college programme initiated
- B.Voc programmes empowering nearby rural population in various professions
- Self-help groups have been formed
- Incubation and innovation centres set up to make the University a hub for awareness in agriculture and social work.
- Generation of educational content for local community in partnership with local Doordarshan Kendra and All India Radio.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Swacch Bharat Abhiyan

- Regular mobilisation of students, faculty to participate in the Swacch Bharat Abhiyan
- Plastic-free campus
- Installation of solar panels for clean energy
- Coordination with state administration to reduce vehicular pollution
- Green campus with ring roads and cycling tracks

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Unnat Bharat Abhiyan

- Incorporation of technology in weaving, printing and leather craft in batik, a prosperous small scale enterprise in the district.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Planning for the Future

- Upcoming Bangladesh Bhavan
- Cheena-Bhavana, Centre for Sino-Indian Culture celebrates 90 years
- Translation of Tagore's works in various Indian and foreign languages
- Creation of Sankardeva Chair in Assamese and Vaishnava Culture
- Thrust on extensive teaching and research in the East Asian languages

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Planning for the Future

- Immediate increase in infrastructural facility including hostels, laboratories and state-of-the-art studios for artists and performers
- Thrust towards studies in agriculture with improved laboratories, creation of nine new departments, collaboration with national research institutions
- Marketing of dairy and poultry products

DIBRUGARH UNIVERSITY

Dibrugarh-786004

Assam



A Presentation on Digital Initiatives taken by Dibrugarh University

Prof. A. K. Buragohain, Vice-chancellor



Niyatang Kuru Karma…

Perform Your Duties,

For,

Action is Superior to Inaction.

GOING DIGITAL

Dibrugarh University began its Digital journey

In 2010 with the implementation of an MIS

MIS contains modules like

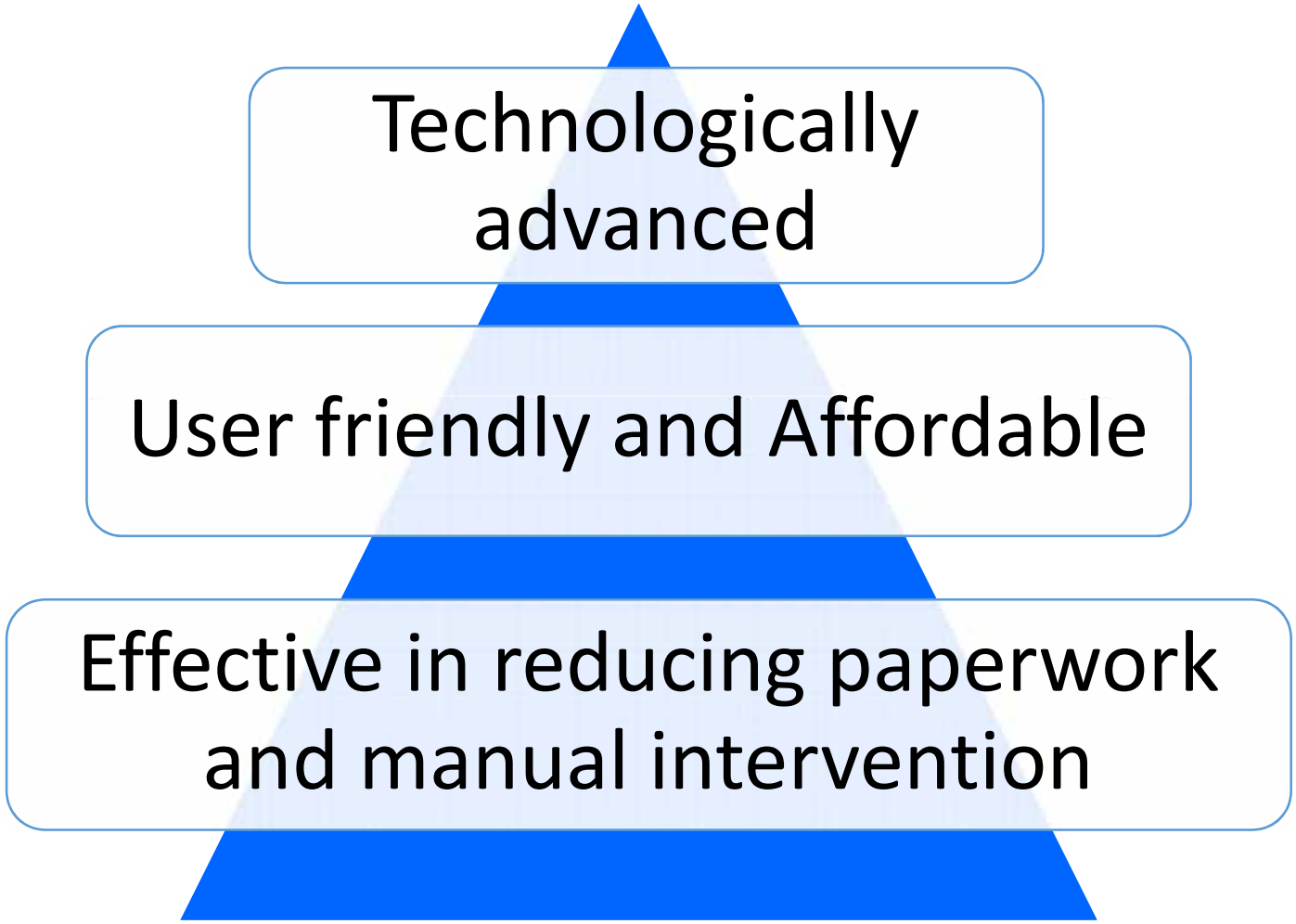
Finance and Accounting System, HR Management System etc.

Since then several initiatives have been taken

Towards e-governance and e-learning

Our Guiding Principle in Digitalization

To implement systems that are:

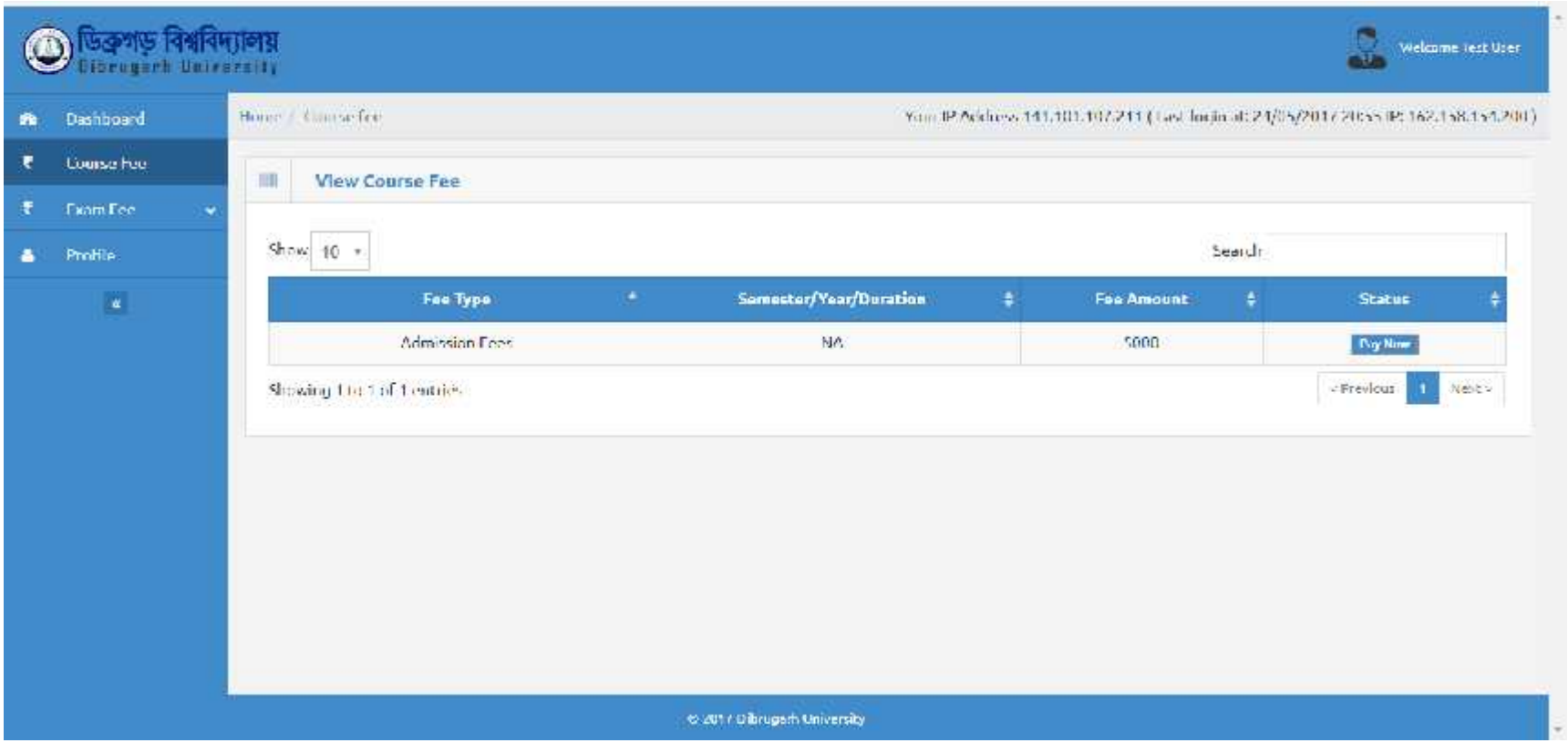


Some Major Developments in Recent Years

- ✓ *E-payment(NEFT, RTGS) in all financial transactions*
- ✓ *Online Fee Payment System*
- ✓ *Dynamic and Robust website*
- ✓ *Online Publication Database*
- ✓ *Online Research Project Monitoring System*
- ✓ *Online Thesis Tracking System*
- ✓ *Online Admission System*
- ✓ *Google Classroom*
- ✓ *Online Module for Entrance Test*
- ✓ *Online Application for Convocation*
- ✓ *Examination Data Processing System*

❖*Online Fee Payment System*

- ✓ Through this system
  - **Students can pay their fees in cashless and online mode without paying any extra transaction charge**
  - **Accounts branch can generate Fee Payment Reports**
  - **Administration can easily reconcile the reports**
- ✓ The system can also be used to collect Registration Fee of Seminars, Workshops etc and other fee when necessary



❖*Dynamic and Robust website*

- ✓ URL
  - **https://dibru.ac.in**
- ✓ Based on a standard Content Management System having many user roles and access permission
- ✓ Provide one-click access to important content and academic resources available online



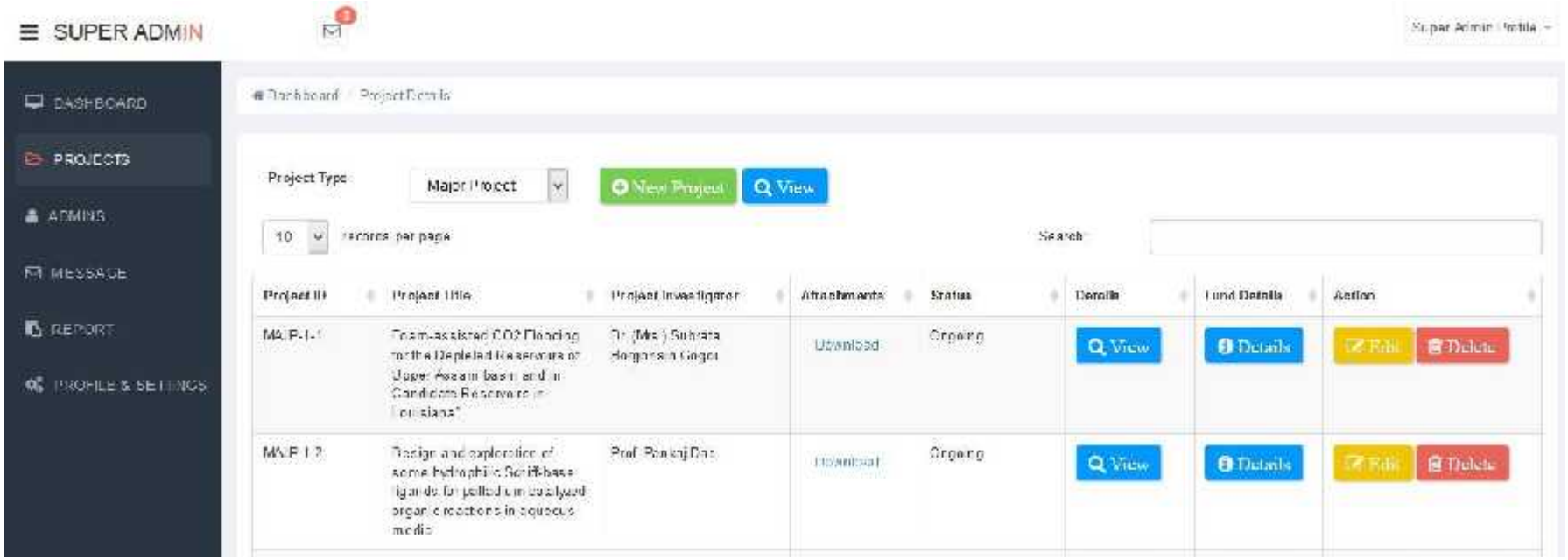


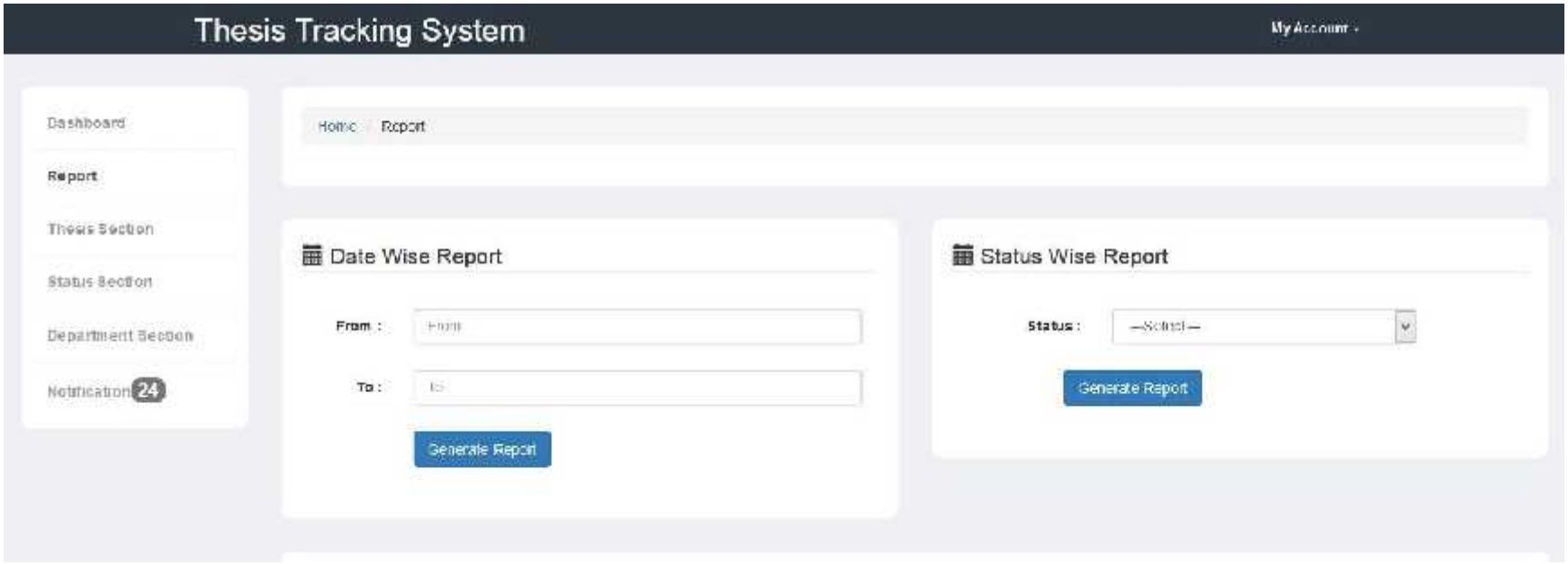
Online Publication Database

- contains records of various research publications of the researchers of Dibrugarh University
- includes Advanced Search facility to easily search papers year wise, author wise, journal wise or by title and keywords

Online Research Project Monitoring System

- ✓ Project Investigators(PI) can monitor the utilization of their project fund
- ✓ Accounts branch can track the status of the projects and commnicate with the PIs
- ✓ Utilization Certificates, Sanction Letters and other documents can be easily accessed from anywhere



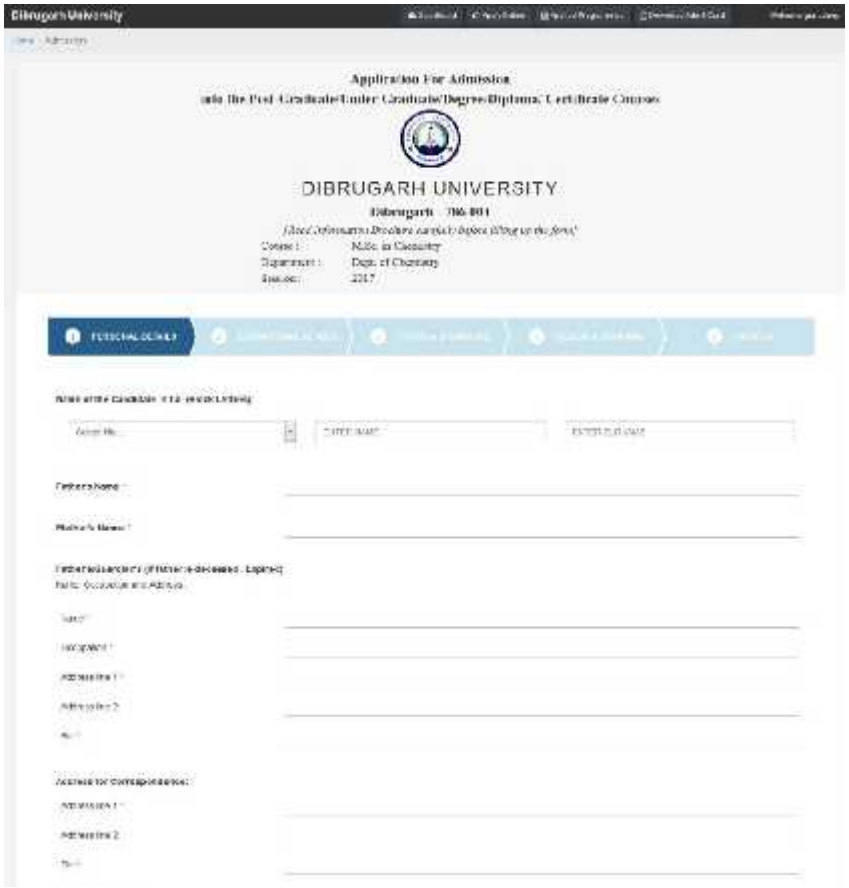


Online Thesis Tracking System

- ❑ Research Scholars can track the status of their thesis
- ❑ Concerned departments and branches can monitor the progress of the scholar
- ❑ Date wise and Status wise reports can be generated

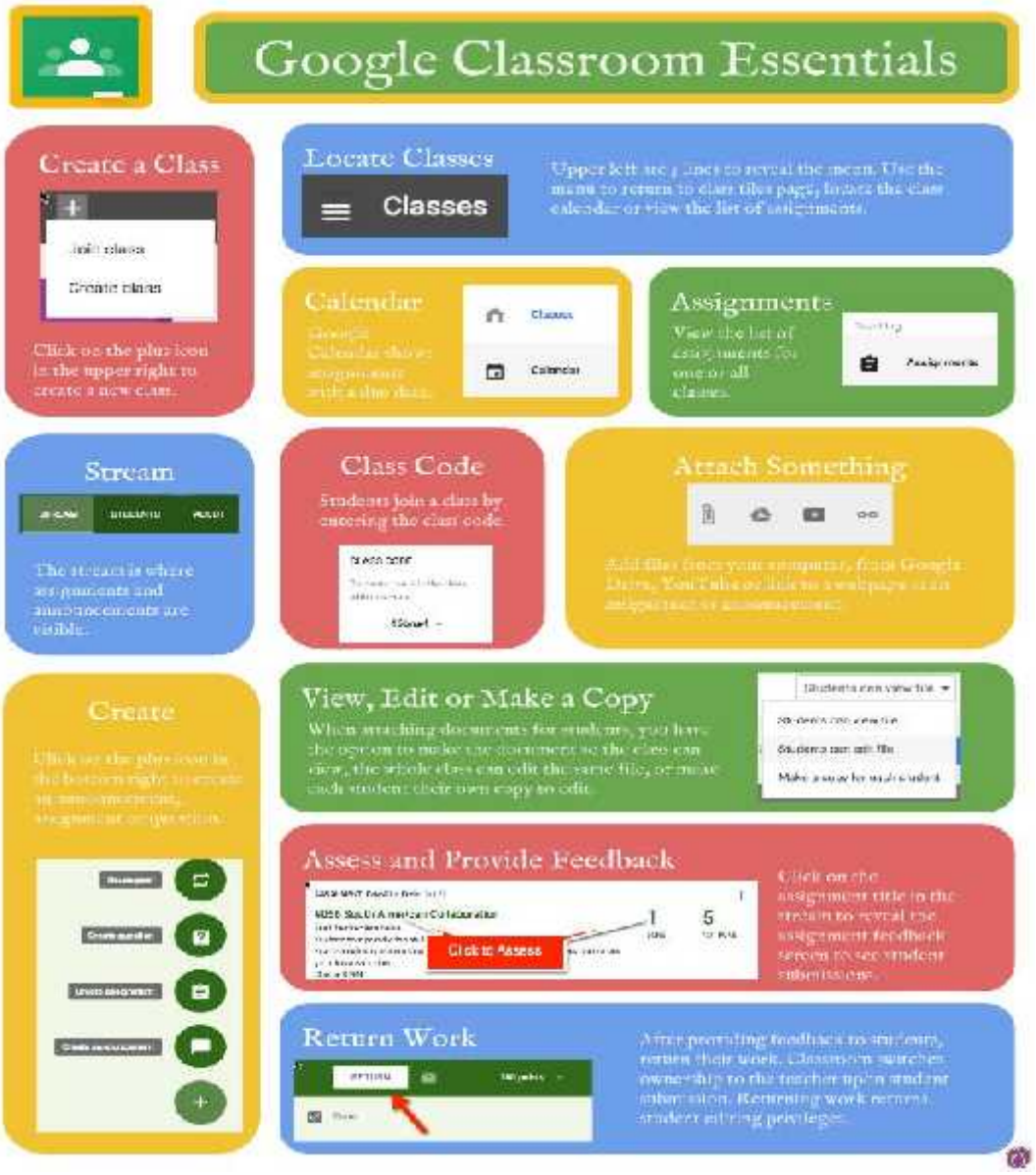
Online Admission System

- ✓ Submit applications online for Admission to Academic Programmes. Application Fee can be paid online.
- ✓ Automatic generation of Merit List, Waiting List etc.





Google Classroom



Online Module for Entrance Tests

- ✓ Automatic Admit Card / Attendance Sheet generation
- ✓ Result Declaration and e-marksheet generation



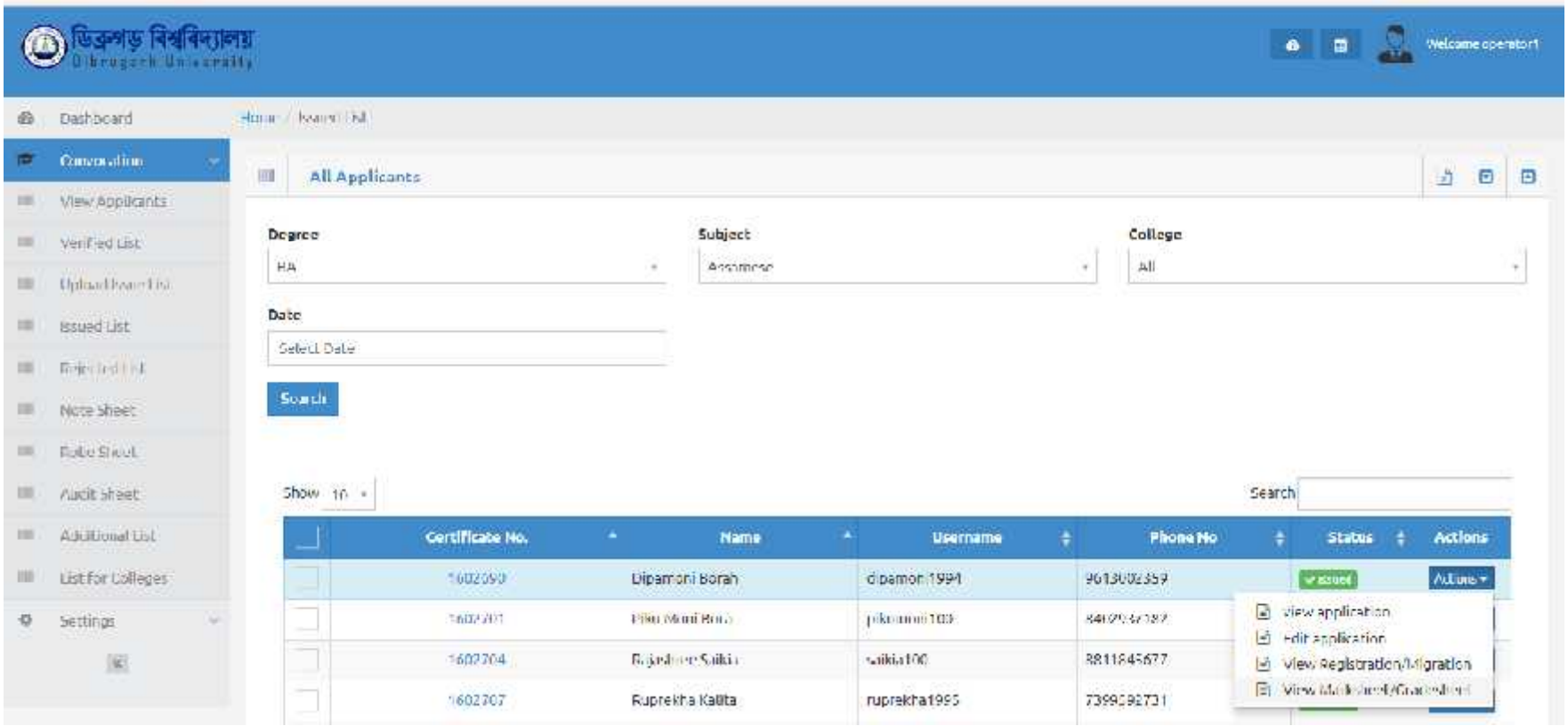
COMMON ENTRANCE TEST
FOR ADMISSION TO THE 2 YEAR B.Ed. PROGRAMME OF
DIBRUGARH UNIVERSITY
SESSION: 2017-2019
Attendance Sheet

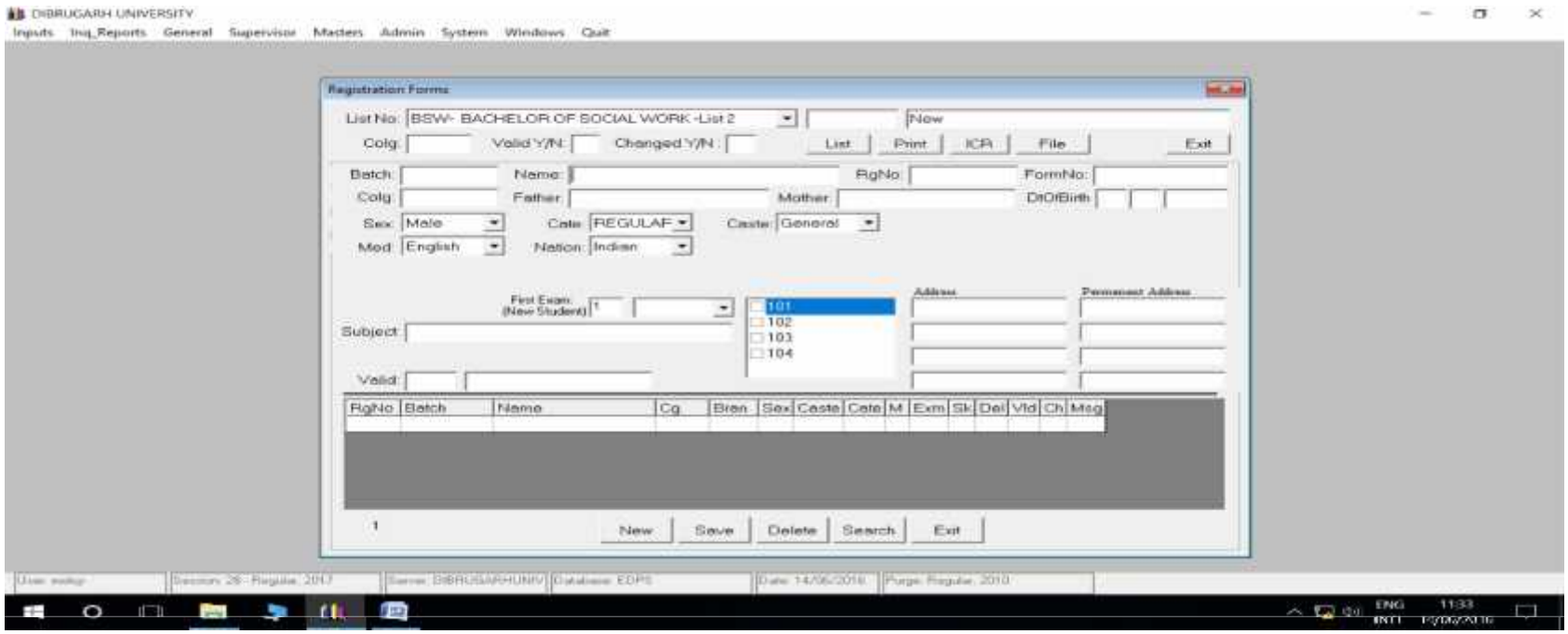
Test Centre: College of Teacher Education, Golaghat

Sl No.	Applicant Name	Roll No.	Photo	Signature of candidate	Signature of candidate (to be signed at the time of examination)
1	[redacted]	[redacted]			
2	[redacted]	[redacted]			
3	[redacted]	[redacted]			

Online Application for Convocation

- ✓ Candidates can apply online for participating in Convocation
- ✓ The system generates certificates which can be verified and issued to the candidate





Examination Data Processing System(EDPS)

- ❑ Marks obtained by the Students are entered in the system
- ❑ Tabulation Sheet, Marksheet/Gradesheet are generated automatically
- ❑ Reduce a lots of manual work



AUTOMATION IN LIBRARY

- ✓ **SOUL 2.0** Software for Automation
- ✓ **OPAC** and Web OPAC Facility
- ✓ **FedGate** tool to provide users a single window access to all e-resources
- ✓ **EzProxy** tool to search contents from multiple databases
- ✓ **EBSCO Discovery Services**: Another tool for federated search
- ✓ Specialized services to visually impaired through **JAWS OPEN BOOK** software.
- ✓ Anti-Plagiarism Software- **URKUND**

Thank you

DIGITAL INITIATIVES: MAXIMUM GOVERNANCE, MINIMUM GOVERNMENT & EASE OF ACADEMIC ADMINISTRATION @ IGNOU

Prof. Ravindra Kumar
Vice Chancellor, IGNOU

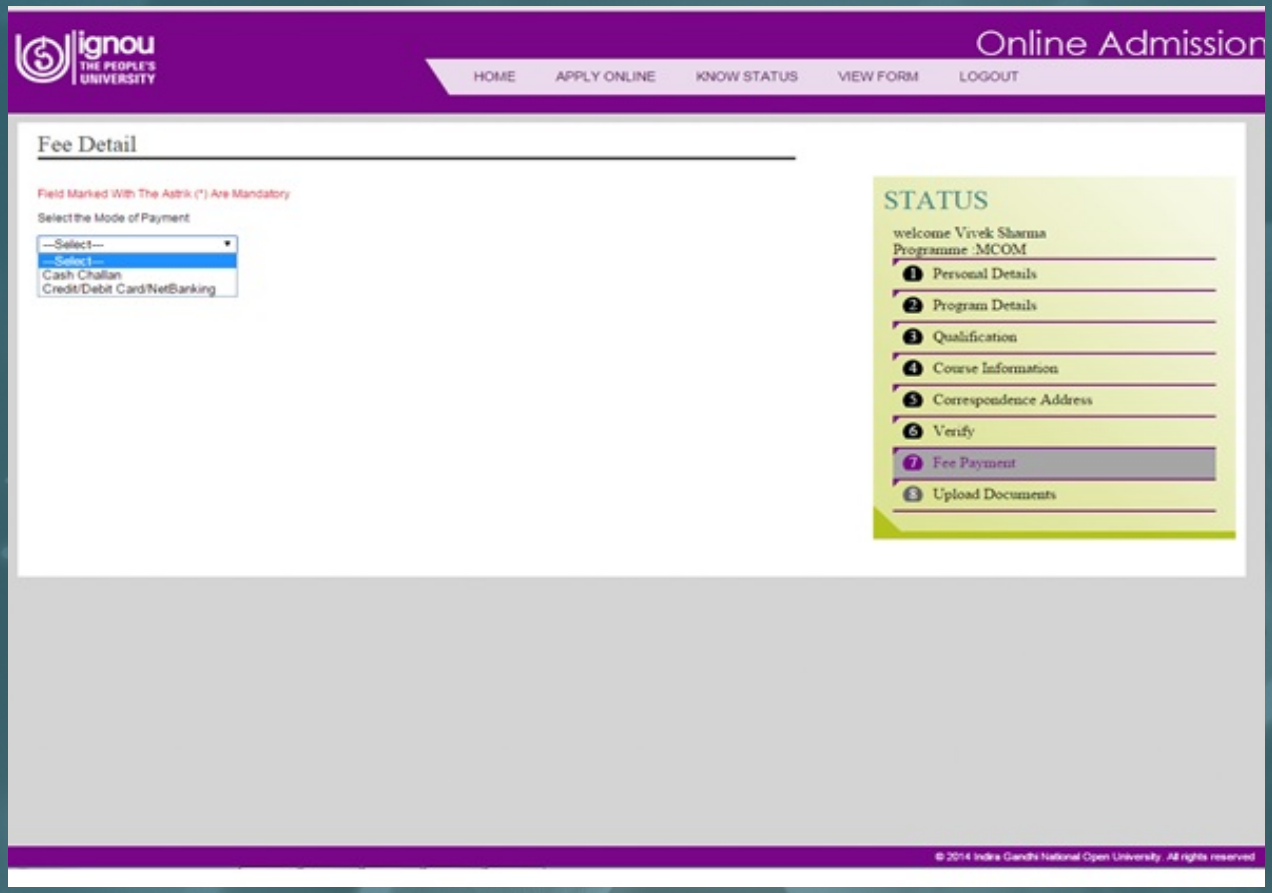
IGNOU at a Glance

- Programmes on Offer - 232
- Students Registered in 2016-17 - 8.21 lakhs
- Students on Roll - 30.3 lakhs
- Schools of Studies - 21
- Regional Centre - 67
- Learner Support Centres - 3136
- Academic Counsellors - 58,400
- Students awarded Degrees/ Diploma/ Certificates in 2017 - 2.11 lakhs
- Study Material Printed in FY 2016-17 - 16.53 lakhs

Online Admission

- 100% online admission facility through its Online Admission System (OAS
- Online Re-registration (ORR) facility
- Dedicated E-Support Unit for coordinating and monitoring the online admissions and centrally managing admission related matters of all RCs





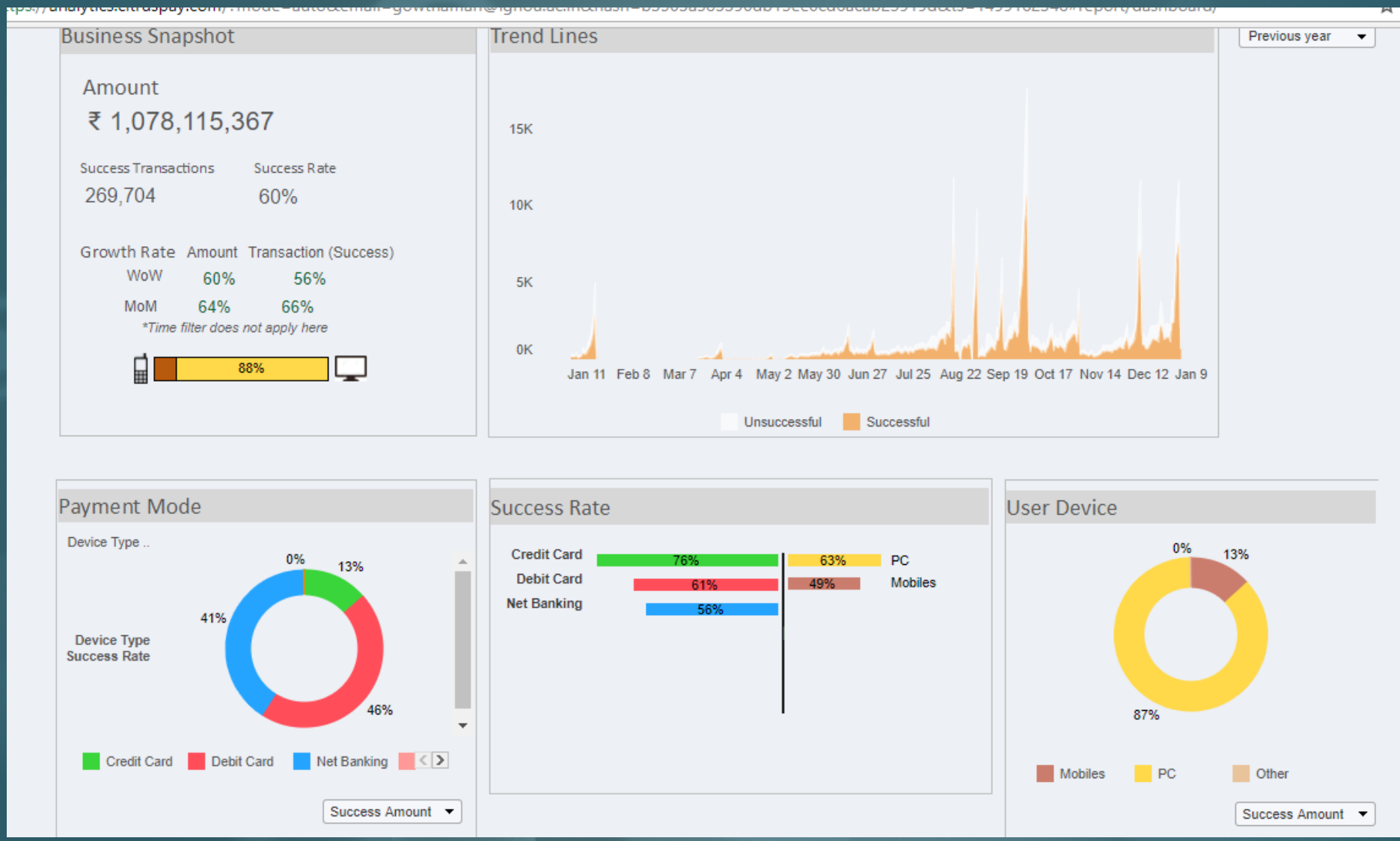
Digital Fee Transaction

Online fee collection facilitating auto reconciliation of fee accounts

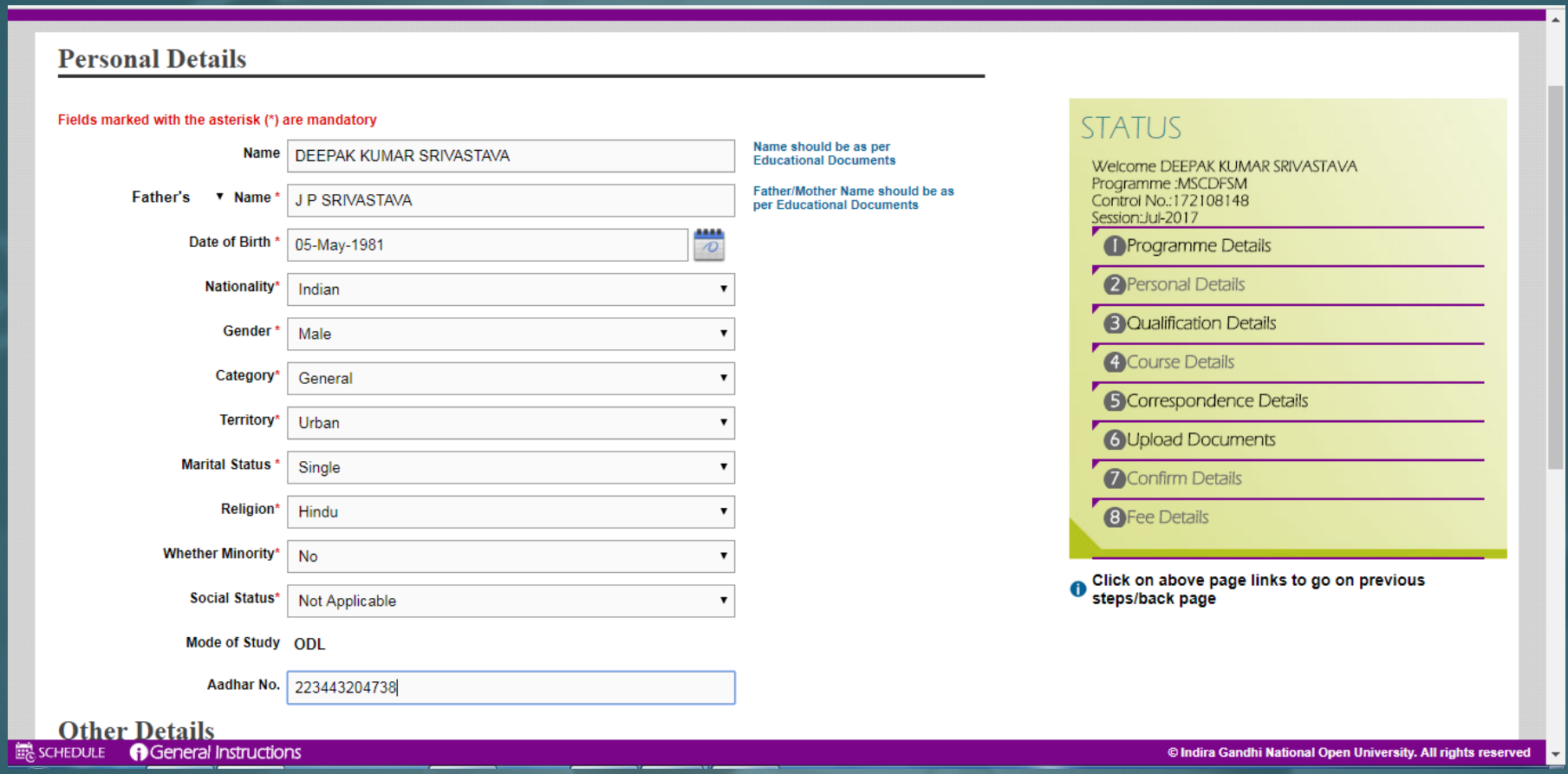
Digital Payment facility at Regional Centres through POS Machines



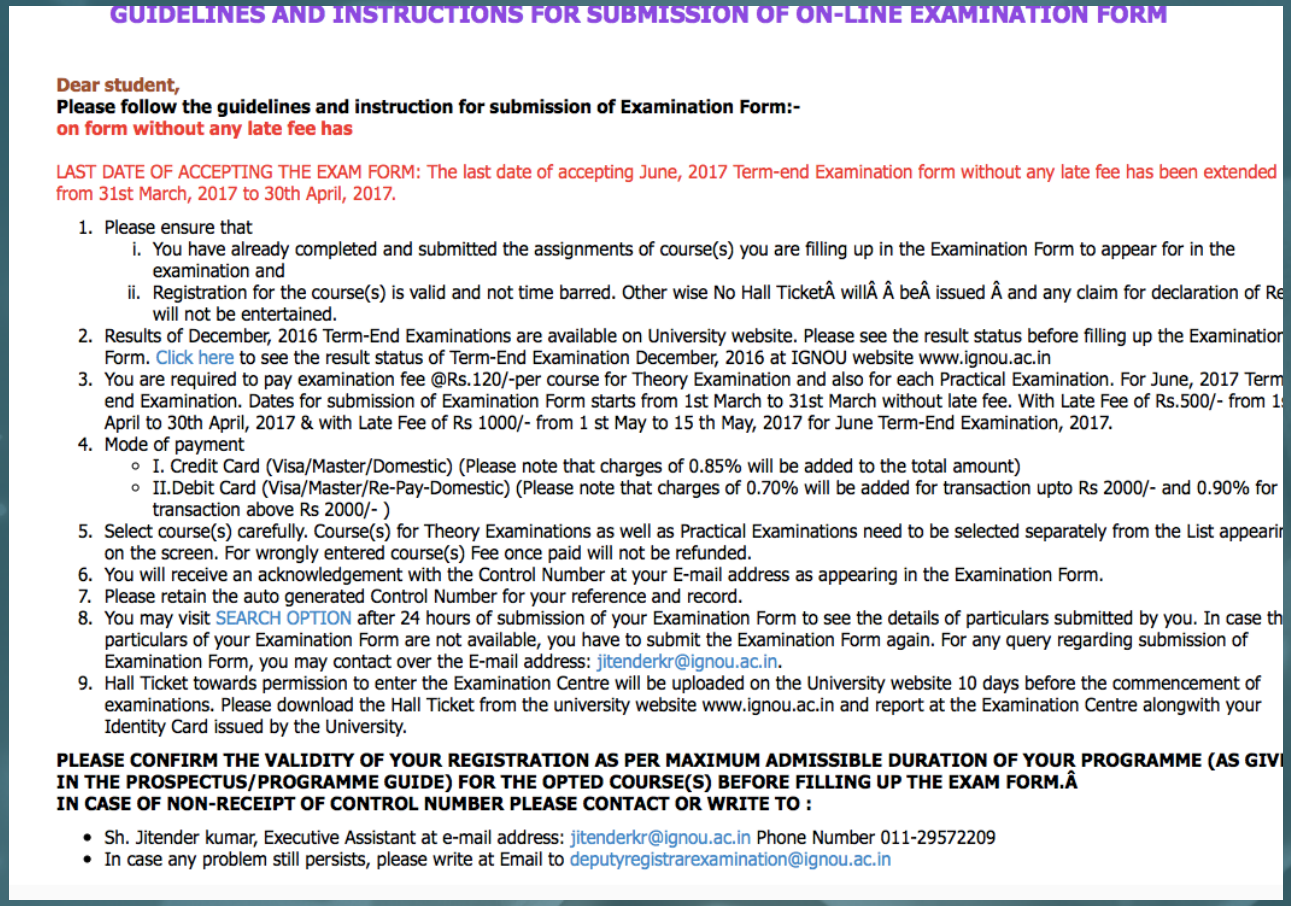
OAS – Payment Dashboard



ADHAAR BASED ADMISSION



Presently ADHAAR Number is being captured by the Online Admission System. Also IGNOU is one of the Registrar for enrolment under UIDAI



GUIDELINES AND INSTRUCTIONS FOR SUBMISSION OF ON-LINE EXAMINATION FORM

Dear student,
Please follow the guidelines and instruction for submission of Examination Form:-
on form without any late fee has

LAST DATE OF ACCEPTING THE EXAM FORM: The last date of accepting June, 2017 Term-end Examination form without any late fee has been extended from 31st March, 2017 to 30th April, 2017.

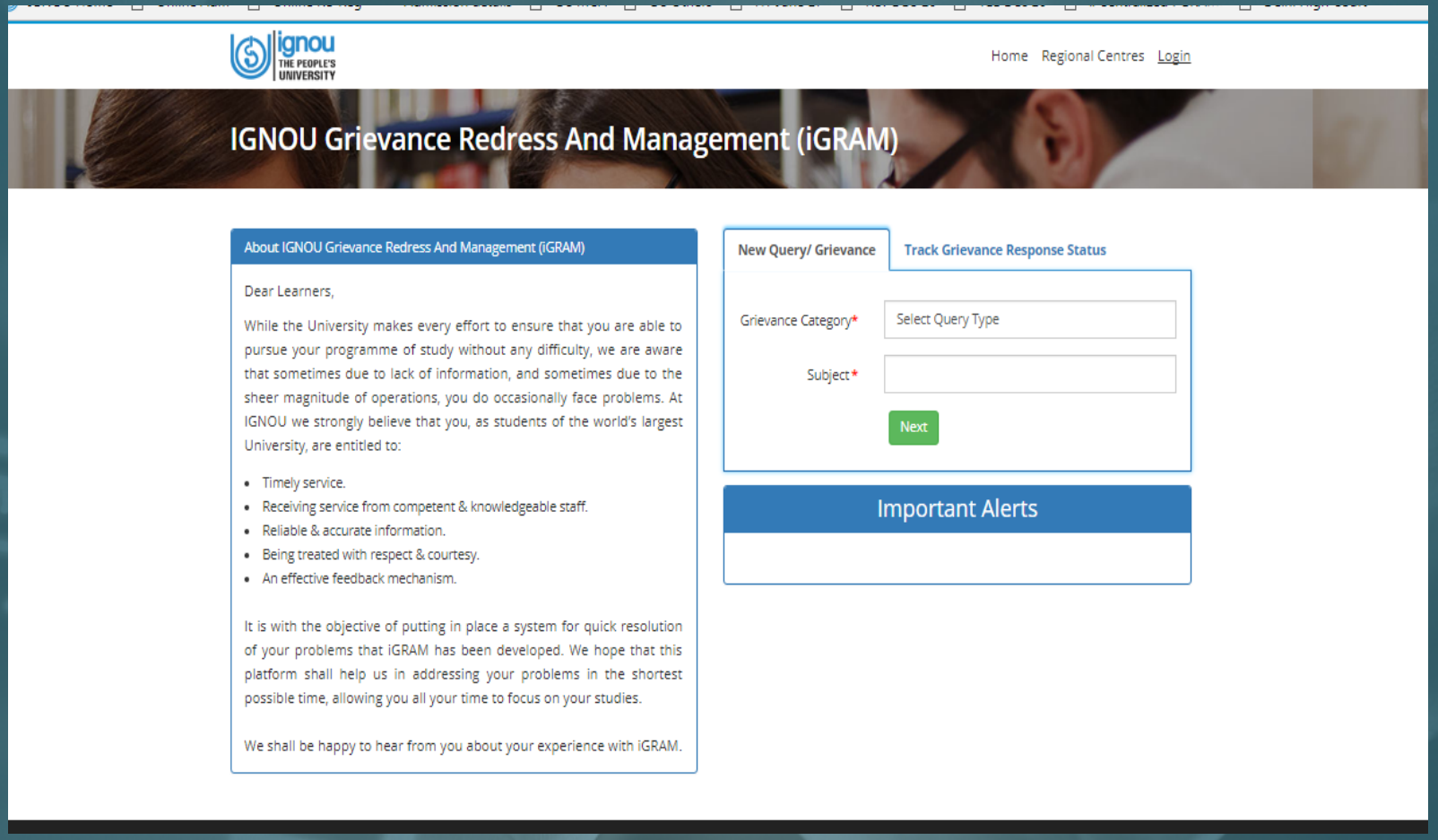
1. Please ensure that
   i. You have already completed and submitted the assignments of course(s) you are filling up in the Examination Form to appear for in the examination and
   ii. Registration for the course(s) is valid and not time barred. Other wise No Hall TicketÂ willÂ Â beÂ issued Â and any claim for declaration of Re will not be entertained.
2. Results of December, 2016 Term-End Examinations are available on University website. Please see the result status before filling up the Examinatior Form. Click here to see the result status of Term-End Examination December, 2016 at IGNOU website www.ignou.ac.in
3. You are required to pay examination fee @Rs.120/-per course for Theory Examination and also for each Practical Examination. For June, 2017 Term end Examination. Dates for submission of Examination Form starts from 1st March to 31st March without late fee. With Late Fee of Rs.500/- from 1 April to 30th April, 2017 & with Late Fee of Rs 1000/- from 1 st May to 15 th May, 2017 for June Term-End Examination, 2017.
4. Mode of payment
   - I. Credit Card (Visa/Master/Domestic) (Please note that charges of 0.85% will be added to the total amount)
   - II.Debit Card (Visa/Master/Re-Pay-Domestic) (Please note that charges of 0.70% will be added for transaction upto Rs 2000/- and 0.90% for transaction above Rs 2000/-)
5. Select course(s) carefully. Course(s) for Theory Examinations as well as Practical Examinations need to be selected separately from the List appearir on the screen. For wrongly entered course(s) Fee once paid will not be refunded.
6. You will receive an acknowledgement with the Control Number at your E-mail address as appearing in the Examination Form.
7. Please retain the auto generated Control Number for your reference and record.
8. You may visit SEARCH OPTION after 24 hours of submission of your Examination Form to see the details of particulars submitted by you. In case th particulars of your Examination Form are not available, you have to submit the Examination Form again. For any query regarding submission of Examination Form, you may contact over the E-mail address: jitenderkr@ignou.ac.in.
9. Hall Ticket towards permission to enter the Examination Centre will be uploaded on the University website 10 days before the commencement of examinations. Please download the Hall Ticket from the university website www.ignou.ac.in and report at the Examination Centre alongwith your Identity Card issued by the University.

PLEASE CONFIRM THE VALIDITY OF YOUR REGISTRATION AS PER MAXIMUM ADMISSIBLE DURATION OF YOUR PROGRAMME (AS GIVI IN THE PROSPECTUS/PROGRAMME GUIDE) FOR THE OPTED COURSE(S) BEFORE FILLING UP THE EXAM FORM.Â
IN CASE OF NON-RECEIPT OF CONTROL NUMBER PLEASE CONTACT OR WRITE TO :

- Sh. Jitender kumar, Executive Assistant at e-mail address: jitenderkr@ignou.ac.in Phone Number 011-29572209
- In case any problem still persists, please write at Email to deputyregistrarexamination@ignou.ac.in

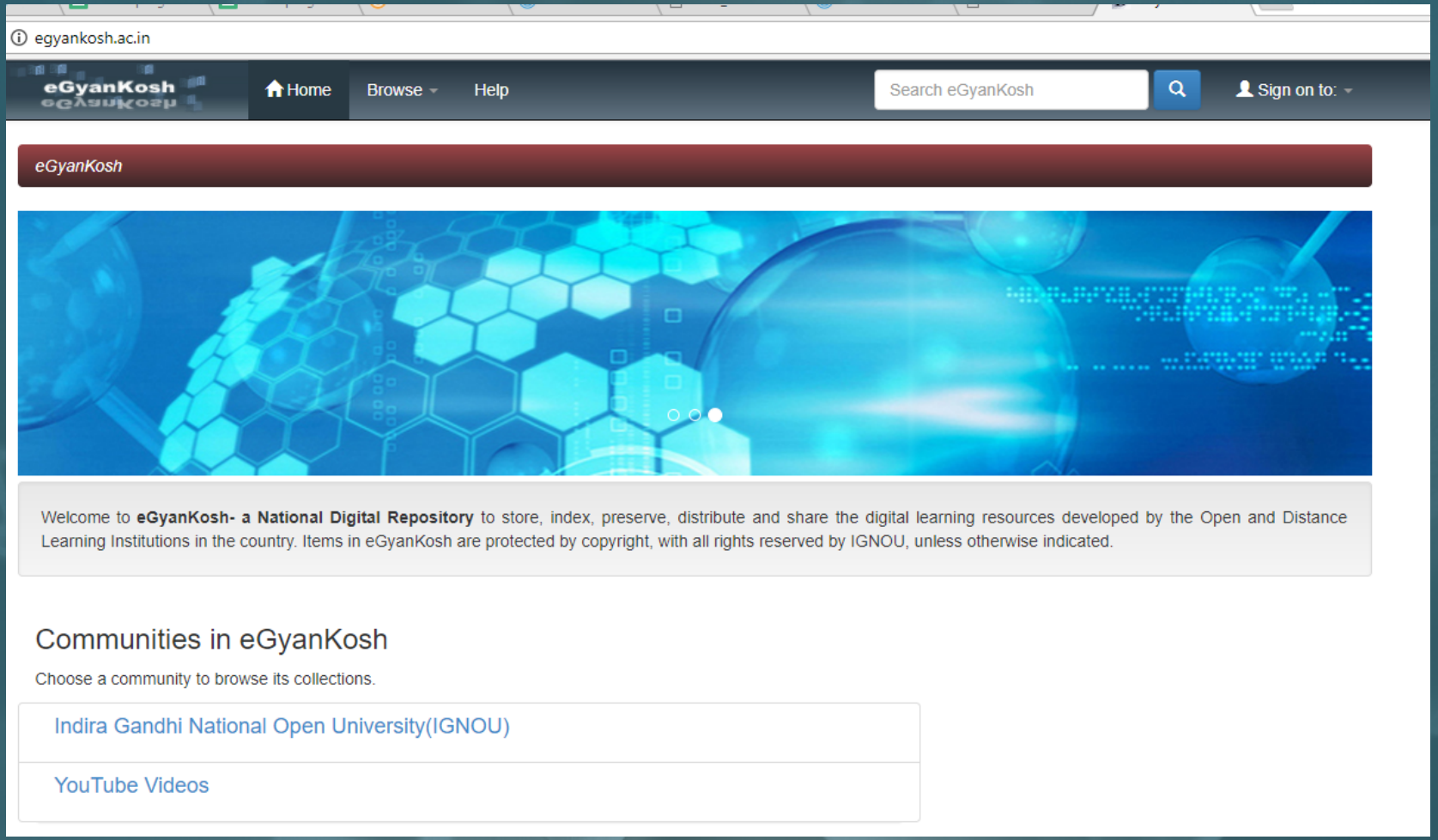
Online Examination Registration

Transparency through digital fee transaction



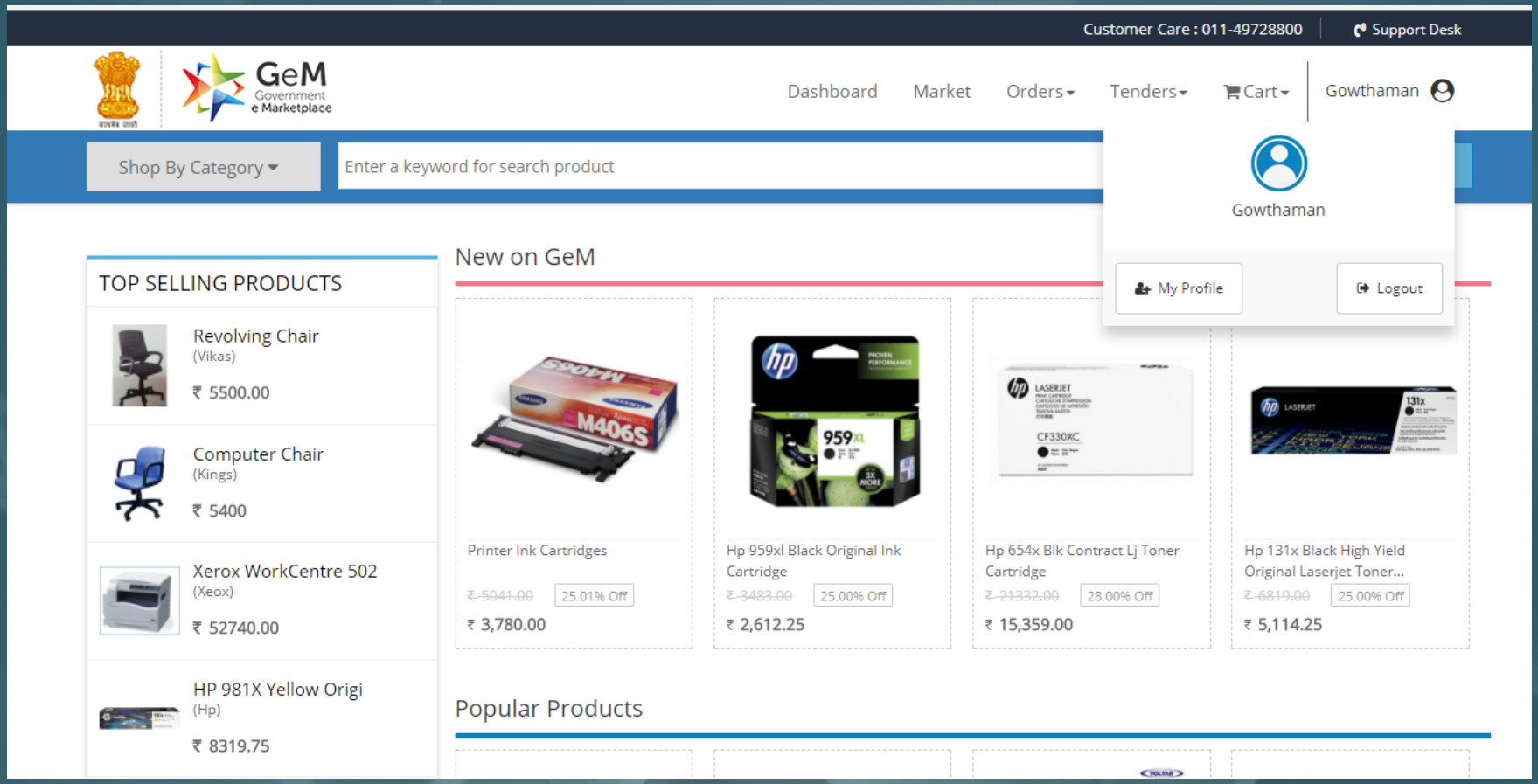
Online Grievance Redressal Management System (i-GRAM)

Launched since January 2017



Digital Learning Resources

E-GyanKosh provides access to all course material both text and multimedia available at egyankosh.ac.in



Implementation of GEM

Implemented transparent purchase system through GFR - 17

Upcoming Facilities

- AADHAR enabled Admission System
- Integration of Cashless Fee System (DigiDhan)
- IGNOU Digital Support Services App
- Digital Learning Centres
- Tracking enabled Material Dispatch System

IGNOU's Participation in National Activities

- National Coordinator for certificate and diploma level courses for **SWAYAM**
- Running 5 DTH Channels of **SWAYAMPRABHA**:
  - Liberal Arts and Humanities
  - Agriculture, Vocational and Allied Sciences
  - Culture
  - State Open Universities
  - Teacher's Education (with NIOS)

Thank You

vc@ignou.ac.in

डॉ. शकुन्तला मिश्रा राष्ट्रीय पुनर्वास विश्वविद्यालय, लखनऊ
दिव्यांगजन सशक्तिकरण विभाग
उत्तर प्रदेश सरकार, भारत
Dr. Shakuntala Misra National Rehabilitation University, Lucknow
Department of Divyangjan Empowerment
Government of Uttar Pradesh, India

National Convention on Digital Initiatives for Higher Education

(July 08-10, 2017, Vigyan Bhawan, New Delhi)

Some of the Major Best Practices of Dr. Shakuntala Misra National Rehabilitation University, Lucknow (U.P.)

Dr. Shakuntala Misra National Rehabilitation University, Lucknow was established by the Department of Development of Persons with Disabilities, Government of Uttar Pradesh in 2008. In this unique University, 50 percent seats in various courses are reserved for physically challenged people and within that 50 percent, i.e., 25 percent of the total seats are reserved for visually impaired students. The University provides education, training and research facilities to both disabled and non-disabled students in the same class room set-up signifying 'reverse integration'.

- The basic focus of the University is on empowerment and mainstreaming of PwDs through inclusive education, training and skill development accordance to the type of disability.
- The University aims at providing education to Divyang students from class VI to Ph.D. level in an inclusive setting.
- The University has totally barrier-free environment incorporating class rooms, hostels, mess ect. Hon'ble President of India Shri Pranab Mukherjee has conferred National Disability Award 2014 to this University for its outstanding contribution in the field of providing a barrier-free environment.
- The University provides free education, hostel and mess facilities to physically challenged students. Presently, about 4500 students are studying in the University in which 751 are Divyang.
- Sign Language Interpreters (SLIs) are made available to deaf students in every class. SLIs simultaneously translate the lectures of teachers in Sign language. This helps the students to understand the subject matter.
- Braille books are made available to blind students. They have also access to softwares.
- Writers and Braille question papers are made available to blind students.
- Artificial Limb and Rehabilitation Centre has been established which manufactures artificial limbs and provides the same free of charge to disabled people.
- In-Service Training along with minor and major research projects with special focus on disability studies are being conducted.
- With the objective of augmenting inclusive education for Divyang students the University affiliates such institutions of Uttar Pradesh who apart from routine course(s) also run course(s) approved by the Rehabilitation Council of India, New Delhi
- A barrier-free Stadium is also being constructed on the campus with assistance from the Government of Uttar Pradesh.
- 'Divyang e-journal is published.
- http://dsmnru.org/ E Samvad is functional. E books, E journals, Lectures are accessed through it.
- Results, admission information and admit cards are accessed online.
- Online registration facility is available to students.
- Digital financial transactions are promoted.
- E-learning and smart class facilities are available.

Indira Gandhi Krishi Vishwavidyalaya

Digital Initiatives - IGKV

National convention on Digital Initiative for Higher Education

INDIRA GANDHI MANAGEMENT INFORMATION SYSTEM (IGMIS)

Digital Initiatives - IGKV

National convention on Digital Initiative for Higher Education

- **10th Largest** state
- Tribal dominated state
- Geographical area **137,90 thousand ha**
- **76%** Rural Population

About IGKV

- Estb.- 20th Jan 1987
- Only Agriculture University in CG
- Autonomous, non profitable Organization

Chhattisgarh



IGKV

Mandates

- **Teaching**
- **Research**
- **Extension**
- **Training**

- Agro-climatic zones,
  1.Chhattisgarh Plains,
  2.Bastar Plateau,
  3.Northern Hills
- **80% Population** engaged in Agriculture

Mission

- Quality Agril. Education
- Excellent Agril. Research
- Transfer of Agricultural Technology

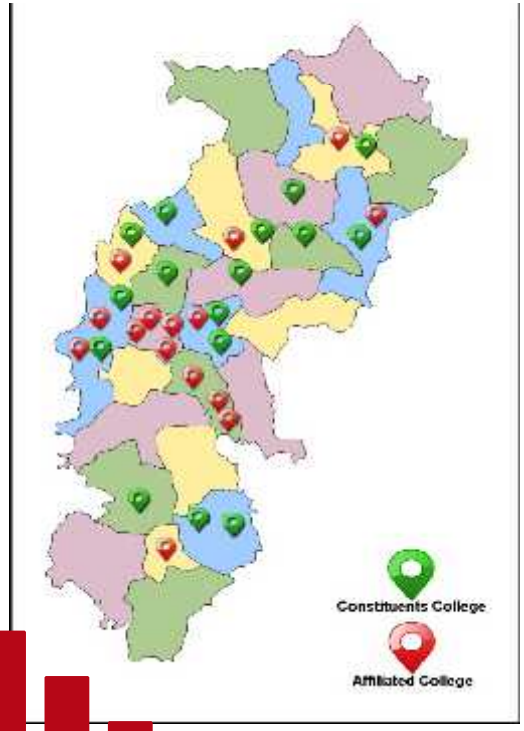
Demographic Spread of IGKV

Colleges

KVKs

Research Stations

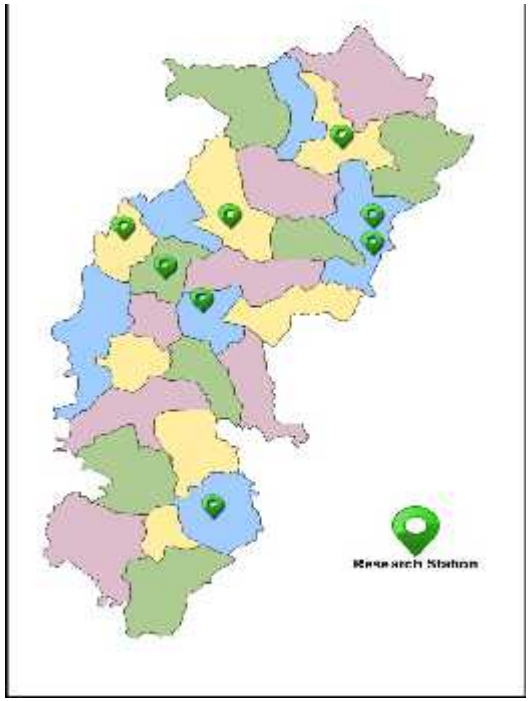
Colleges (31)



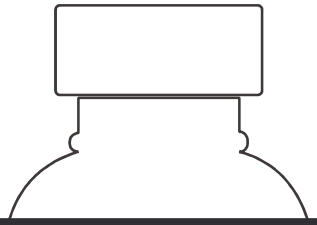
KVKs (23)



Research Stations (8)



Bottlenecks



Tremendous administration efforts involved in handling lakh of application in Admission Process

Due to Semester System, frequency of examination is more, which causes delay in examination result

Educational Activities like Registration, Course Notification through manual proces

Nearly 100 research and extension projects and activities were managed manually which results less recommendation for the farmers of C.G.

Farmers of Naxal affeted & Rural areas were deprive in getting timely agricultural advice.

Establishment and Accounts of the university purchasing, inventory and pay bill work of 2500 employees of IGKV was done manually.

Strategy Adopted

1. IGKV re-engineering the process to over come the bottlenecks.
2. Various committees formed under the Chairmanship of Hon'ble Vice-chancellor.
3. NIC Raipur is selected for programe development and ICT Support.
4. Existing manpower are trained for successful implementation of the project.
5. 1 GBPS NKN Connectivity, RF Connectivity.

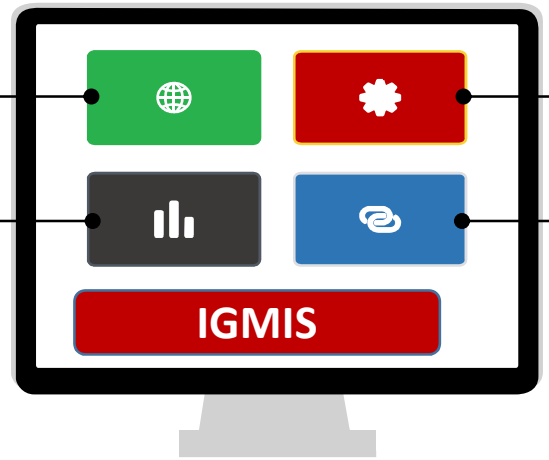
IGMIS ACTIVITIES

Academic

- ❑ Counselling
- ❑ Education
- ❑ Examination
- ❑ Web Portal

Research/ Technology Transfer

- ❑ Online Project Management
- ❑ Crop Health Advisor
- ❑ Bio-Diversity Management
- ❑ Variety Selection Wizard
- ❑ Vegetable DSS



e-Office

- ❑ Establishment
- ❑ Finance
- ❑ File Management

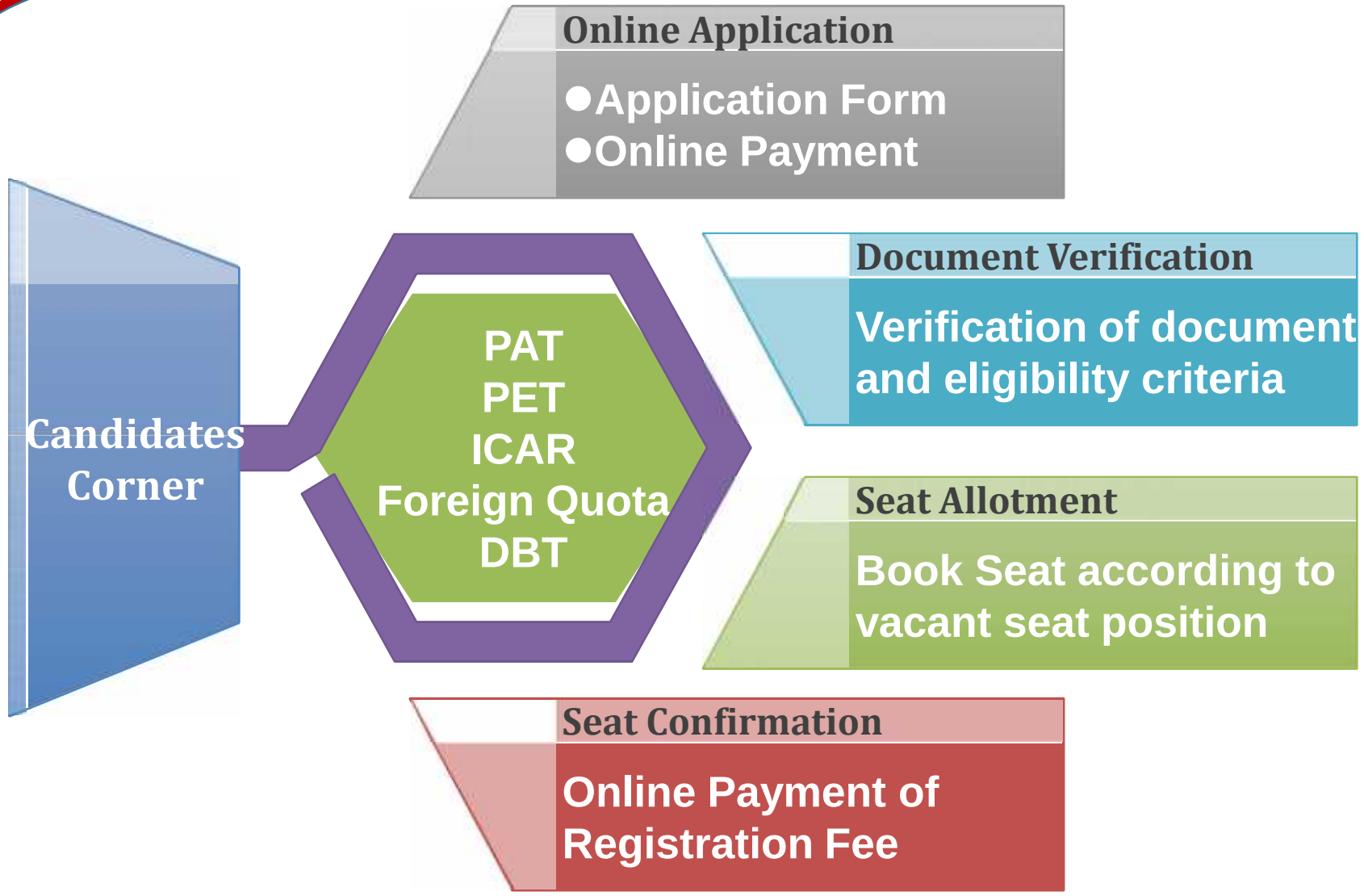
Mobile Apps

- ❑ Crop Doctor
- ❑ IGKVMIS


ACADEMIC

Academic

e-Counselling/Admission Module



Academic

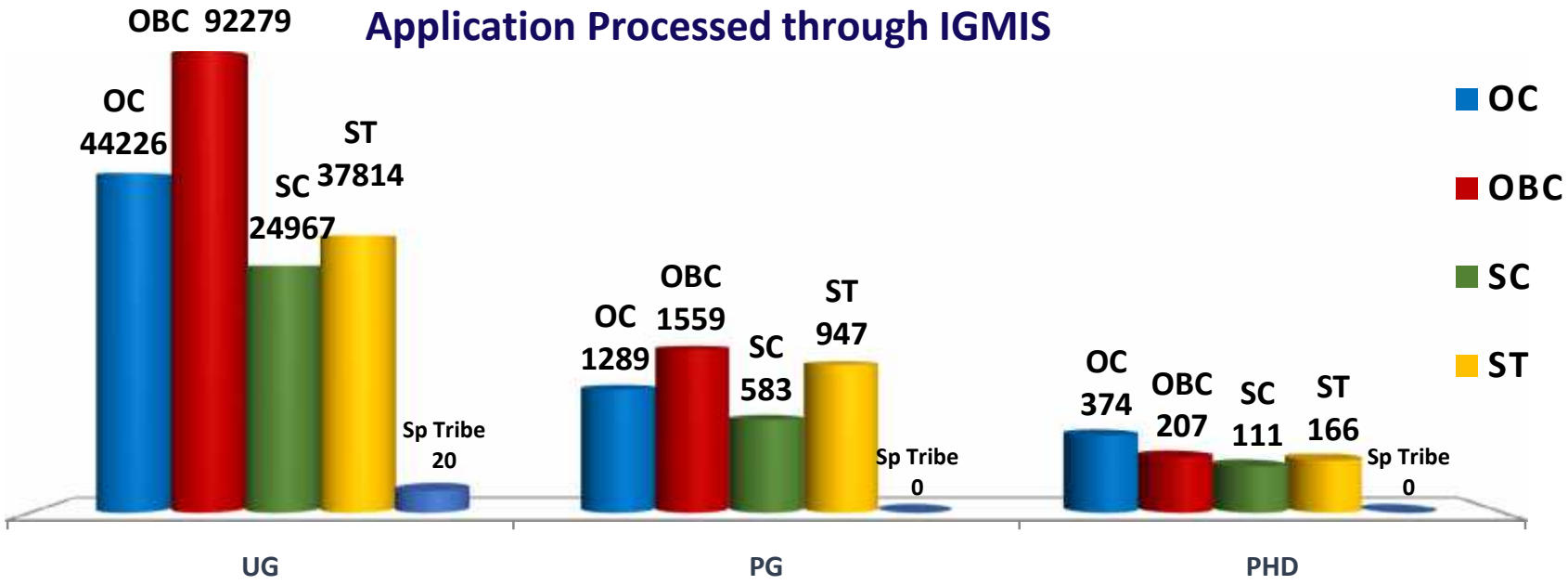
e-Counselling/Admission Module

Salient Features

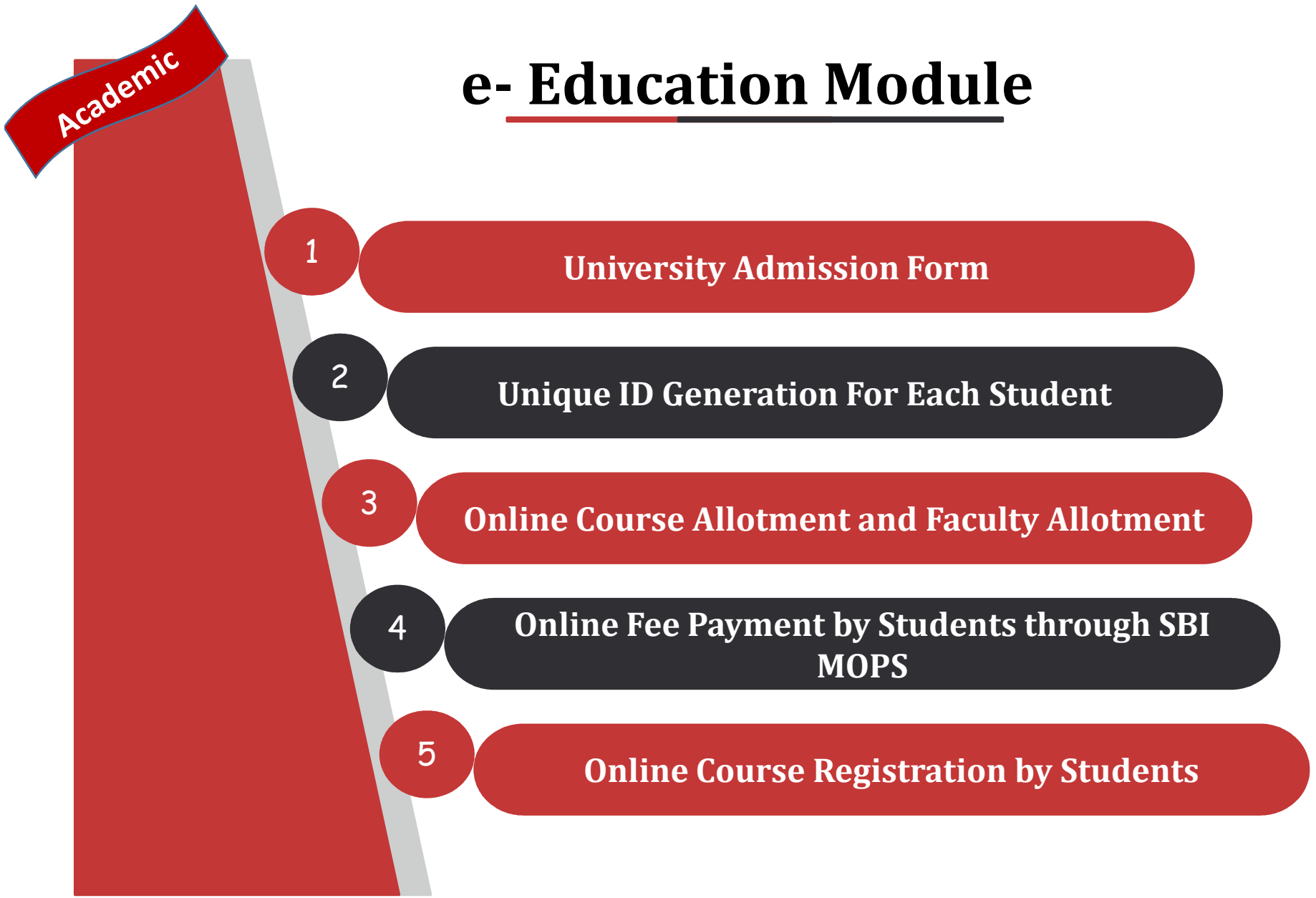
- Online Application – across the Country & Foreign Countries
- Online Payment through debit card , Net banking and challan
- SMS Based Alert System
- Know Your Status

Current Status

- **2 lakh** applications processed
- **8000 Students** admitted through online counseling



e- Education Module



Academic

e- Education Module

Salient Features

- Online College Transfer of student
- Latest news and Notifications
- Online Syllabus and Notes
- SMS Based Alert

Current Status

- Rs **2180.57 lac** are collected through payment gateway as students' fee
- **16557** Registration Card Generated
- **8124** Students Profile are Uploaded

Fee Collection (In Lac)	
Semester Examination Fee	123.18
Semester Registration Fee	1970.28204
Revaluation Fee	42.897
Continuation Fee	0.66
CET Application Fee	10.799
Counselling Application Form	21.974
Failed course fee	10.78150
Total Amount	2180.57354

Academic

e-Examination Module

1 Pre Examination

- Question Paper Requirement
- Time table
- Duty Allotment
- Admit Card Generation

2 Examination

- Unique barcode generation for OMR Sheet
- Attendance Sheet
- OMR Data Validation

3 Post Examination

- Result Notification
- SRC Generation
- PDC Generation
- Migration
- Convocation Apply

Academic

e-Examination Module

Salient Features

- SMS Based Alert every stage of exam process
- Online Application for Revaluation, Back course, Grace Marks and Clearance Exam.
- Automatic calculation of academic standing

Current Status

- More than **1.2 lacs** OMR Sheets are generated
- More than **10,000 Admit Cards** are Downloaded
- SRCs of 8**000 Students** are Generated

Web Portal

Academic

Research

Centers
Publications
Projects

Extension

KVKs
Success story
Crop Based Information

Teaching

Admission
Academic
Examination
Results



Login

Student Corner
Employee Corner
Farmer Corner

Video Tutorials

- Student
- Employee
- Farmers

Social Blog

- FaceBook
- Twitter
- Youtube
- Google +

Grievances/ Feedback

- Student
- Employee
- Farmer

Dashboard

- Admission
- Education
- Finance
- Research

Academic

Web Portal: Features and Impact

Salient Features

- CMS Based System
- Fully Responsive Website
- Bilingual Website
- Grievance Registration form
- Job Seeker and provider

Current Status

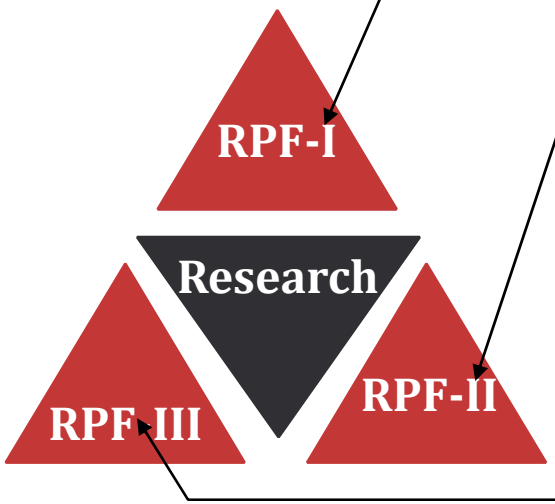
- More than **5,44,044** visitors (Scientists, Students, Farmers)
- More than **107** Students registered for job seeker
- **100** Student visited Discussion Forum on Face book




RESEARCH & e-
EXTENSION

Research

e-Research Module



RPF-I : Online Submission of Project

- Basic Details
- Technology Details
- Investigator Profile
- Budget Estimation

RPF-II : Annual Progress Report

- Progress of Work
- New Technologies, Recommendation, Process, Product knowledge
- Technology Assessment

RPF-III : Final Submission

- Final Report
- New Technologies, Recommendation, Process, Product knowledge.
- Technology Assessment
- Success Stories

Research

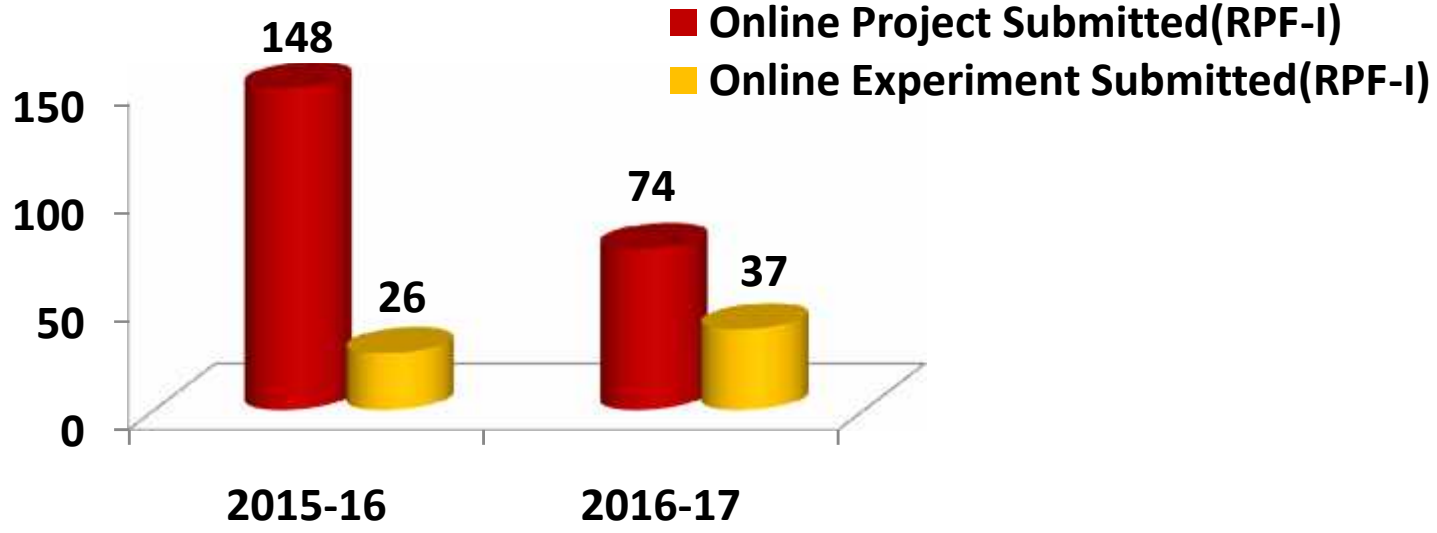
e-Research Module

Salient Features

- Online Project and Experiment Submission
- Crop Based Information
- Success Story of farmer on different Crops

Current Status

- More than **285 Research Projects & Experiments** submitted online
- Funds are allotted to **900 projects** and Experiments of ICAR, DST, DBT and International Project




e-Transfer of
Agricultural
Technology

Research

Crop Health Advisor (Agri DSS)





Features

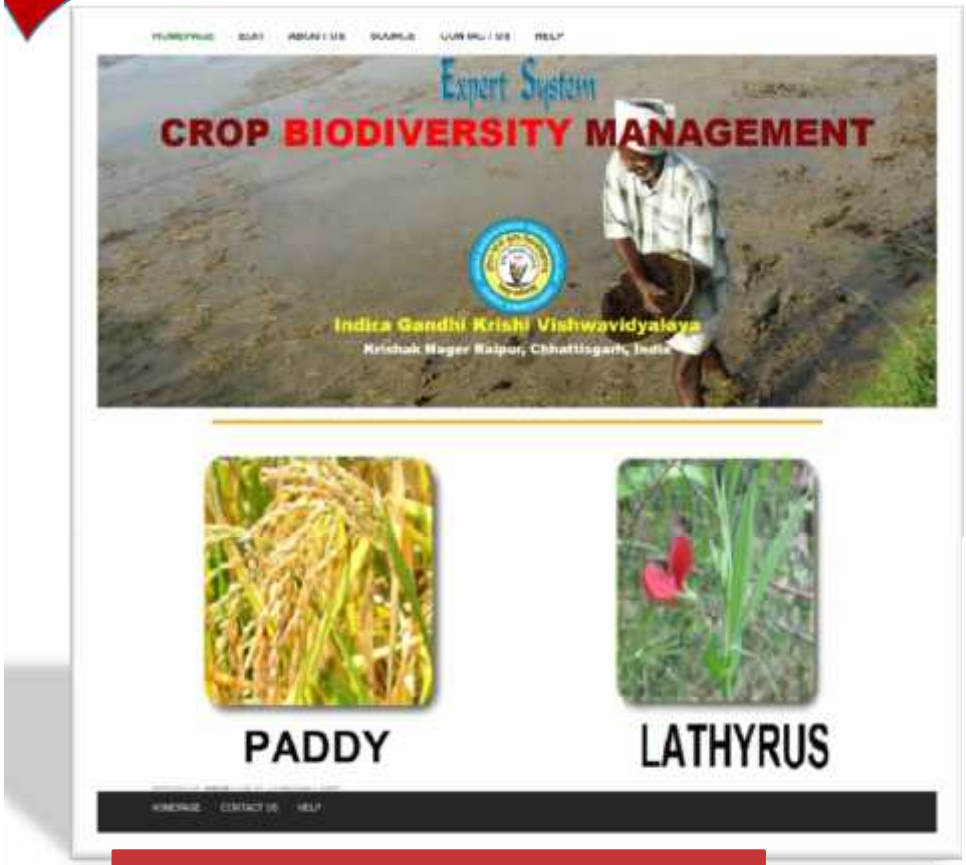
1. Reproduce the performance of one or more expert & Uniform Advisory
2. Identification of pests, disease and Nutrient deficiency/ Excess
3. Doctor's prescription
4. Available in Hindi and English
5. Block, District wise identification of prone area

Current Status

More than 50,000 Farmers/ Students/ Agri. Officers visited

Research

Bio Diversity Management System



Features

- Second Largest rice gene bank in world after IRRI Philippines
- IGKV has 23,250 Rice Germplasm
- Scientist can choose germplasm as per his/ her choice
- Agronomic/ morphological characters based search
- Used for improvement of crop variety

Current Status

800 Unique Germplasm Selected for DNA in in 1st phase

Research

Paddy Variety Selection System



Features

1. Suggest suitable rice variety to farmer based on land condition, desirable yield and maturity days
2. Suggest complete package of practice
3. Seed Treatment, fertilizer recommendation
4. Insects, diseases & weed control

Current Status

KVK SMS/ Agril. Department officers/ Farmers using this system

Research

Doctor Vegetable





Features

- Six vegetables viz ; Tomato, Brinjal, Okra, Cabbage, Chilli and Potato
- Deals with 121 Symptoms
- more than 700 images stored

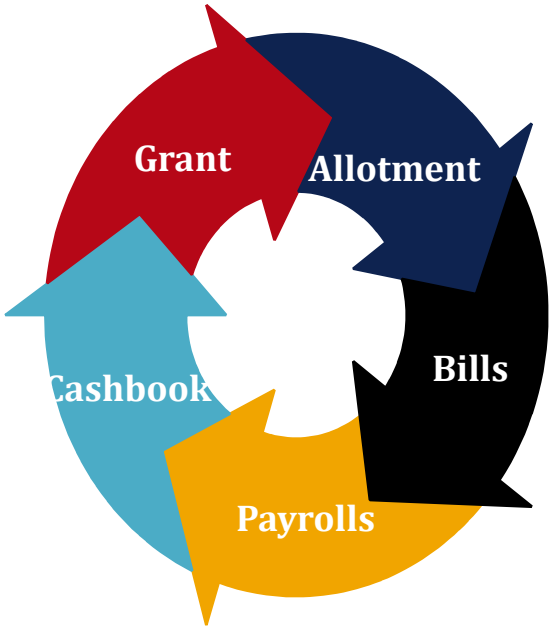
Current Status

KVK SMS/ Agril. Department officers/ Farmers using this system


e-Office

Administration

e-Finance Module



Budget Grant

- Budget Grant Receiving

Allotment

- Budget Allotment

Bills

- Online TA bill / DA calculation
- Online Contingent Bill
- Online Medical Bill

Payrolls

- Salary Generation/ Pay Bills
- Pay Slip

Cashbook

- Expenditure Statement
- Cashbook

Administration

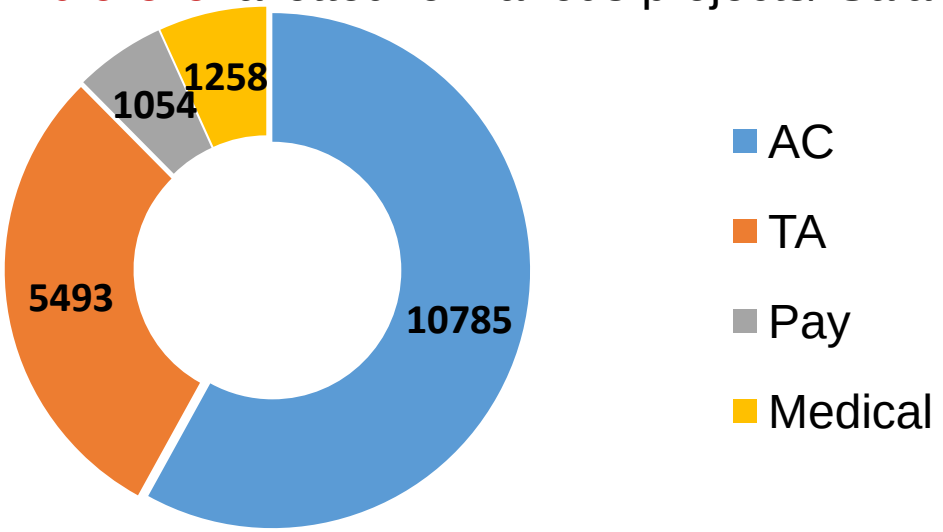
e-Finance Module

Salient Features

- Generalized Formula for Pay fixation
- Payslip
- Automatic DA Calculation
- Online approval of bills

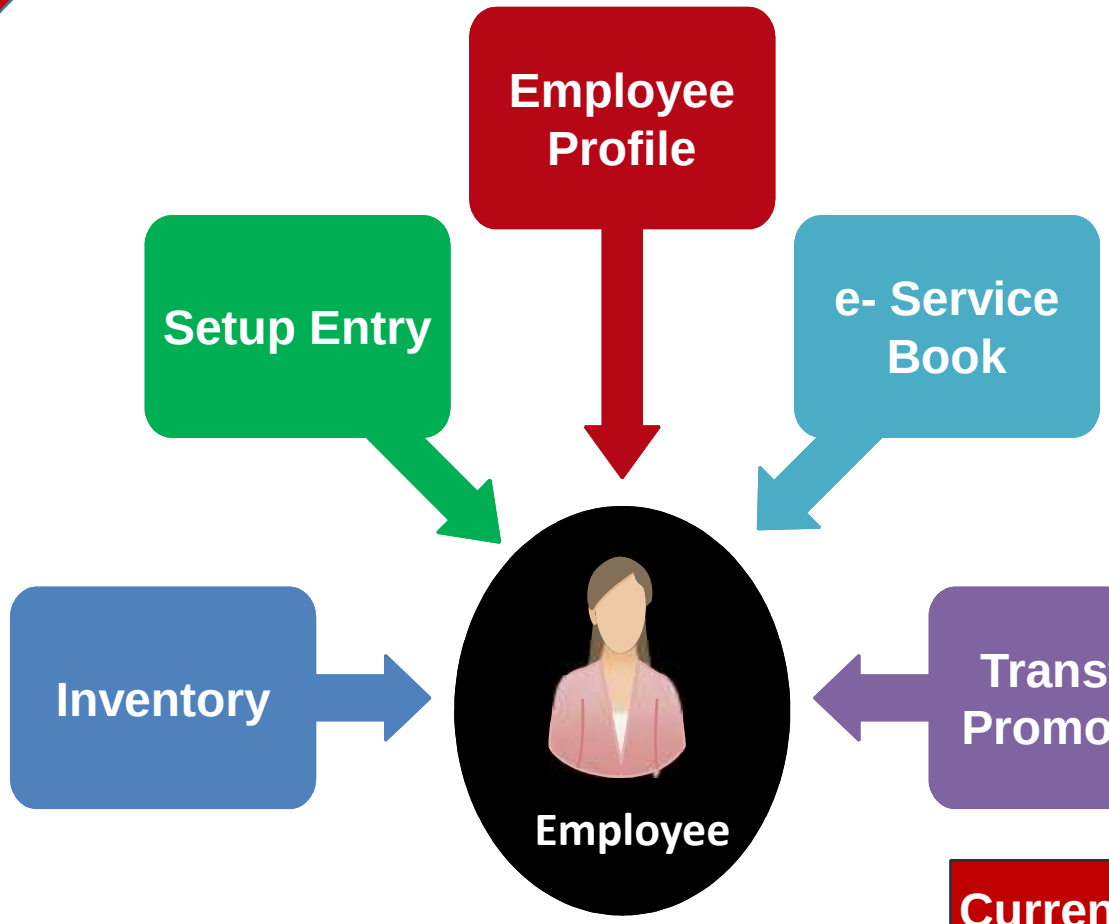
Current Status

- More than **10110 bills** are processed
- More than **Rs.120 crore** allotted for various projects/ Salary



Administration

e-Establishment Module



Salient Features

- e service Book
- Online transfer and promotion
- Dynamic Report Generation
- Leave Management System

Current Status

- More than **2500 employee** Profiles are processed

Administration

File Management System

Salient Features

- Transparency in file movement
- Decrease in Stationery cost
- Increase in speed **24X7 file** movement
- Status is quick known

Current Status

- More than **10000 different** kinds of files including bills and projects




Mobile Apps

Mob App

Crop Doctor



Salient Features

- Purely Image Based System
- Diagnose of Pest/ diseases/ Nutrition's Disorder
- Available in Hindi & English
- Work without Internet at farmers field
- Farmer can send picture, query for special assistance

Current Status

- More than 5000 Farmer/Agril officer/SMS visited Demonstration in "HAMAR CHHATTISGARH" State Government Project (2016-2018) in which daily 500 farmers visiting V.V.

About Crop Doctor

1. ICT enabled interventions in agriculture.
2. Providing timely expert advise to farmers.
3. The modern farmer often relies on agricultural specialists for decision making.
4. Unfortunately, assistance is not always available when the farmer needs it.
5. Crop Doctor attempts to reproduce the performance of one or more human experts.
6. Diagnosis or identification of pests, diseases and nutrient deficiency/access symptoms and take valuable decisions on its management.
7. The reliability and validity of the contents checked with the help of SMS of KVKs / Scientist.

.

Vegetable Doctor

Menu Feature

- ❑ About Us
- ❑ Website
- ❑Share to other

Language Selection

- ❑Hindi
- ❑ English



Activity Covered

- ❑ Identify the Symptom
- ❑ Agriculture News
- ❑Feedback
- ❑Farmers Chat

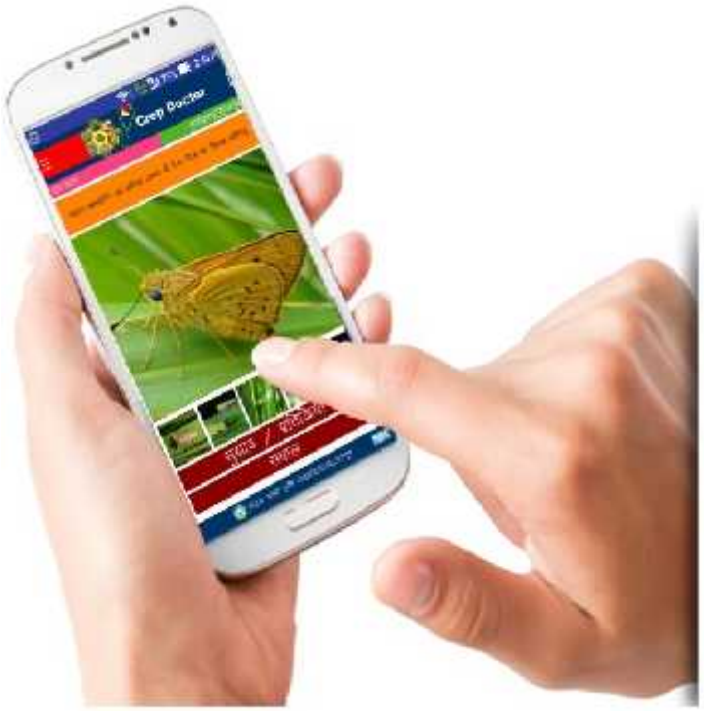
Activity Covered

- ❑ Querry
- ❑Waiting Period
- ❑Expert Advice

Mob App

Crop Covered







Crop Doctor



* Purely Image Based System
* Available in Hindi & English
* Diagnose of Pest/ diseases/ Nutrition's Disorder
* Work without Internet connectivity at farmers field
* Downloadable from Google Play store

NIC-IGKV

Vegetable Doctor



Inauguration CROP DOCTOR Mobile App





IGKVMIS Mobile App





IGKVMIS Mobile App Inauguration

Mobile App launched at Indira Gandhi Krishi Vishwavidyalaya, Raipur

On the 30th foundation day of Indira Gandhi Krishi Vishwavidyalaya (IGKV), Raipur, Chhattisgarh, a National Workshop on "Concepts of Higher Education and its Future Nature" was organized on the 20th January 2016. With this, university moved one step ahead towards ICT penetration in the administration by launching its first "Android based Mobile App" for the benefit of students, faculty members of the university, all constitutional and affiliated colleges. The Mobile App was launched by Sh. Gaurishankar Agrawal, Speaker, Chhattisgarh Legislative Assembly in the presence of Dr. S.K. Patil, Vice-Chancellor along with many dignitaries and faculty members.

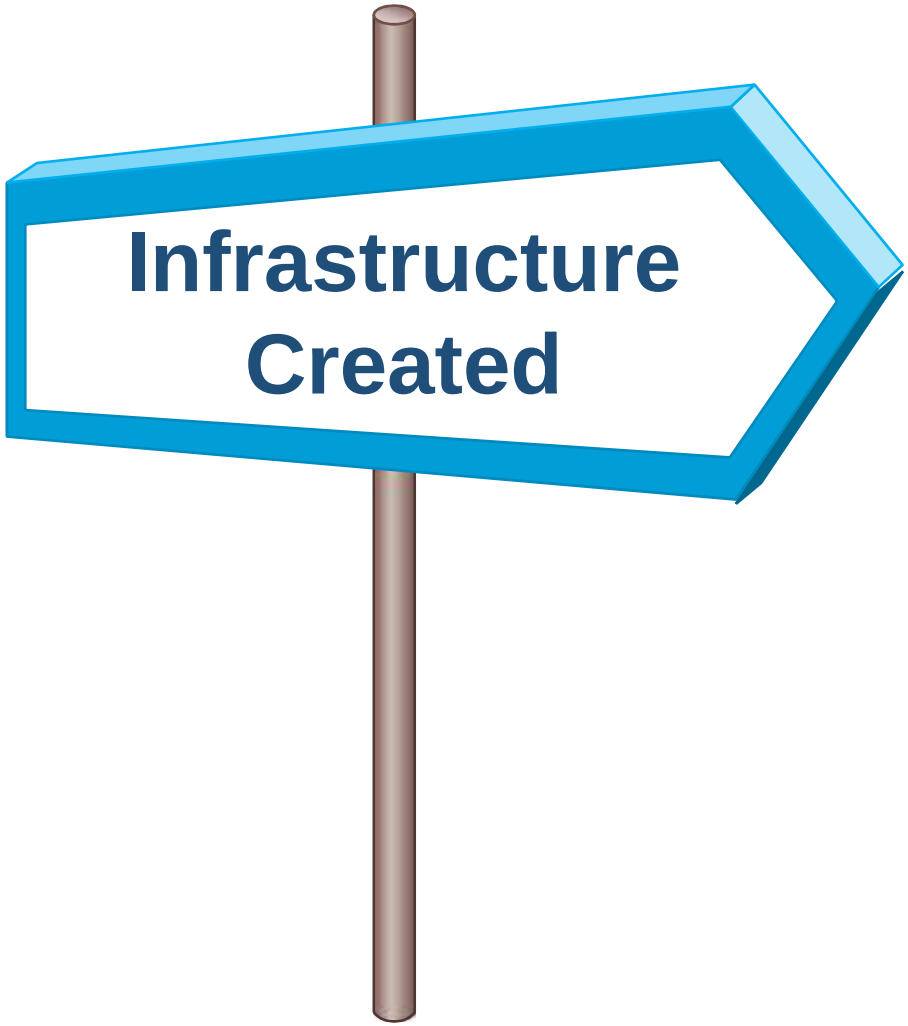
NIC Chhattisgarh State Centre, Raipur has developed the App as a part of "Integrated Management Information System" being developed for the university covering seven different modules viz. Education, Examination, Establishment, Finance, Research, Extension and University Web Portal. The mobile App features profiles of Students & Faculty, Student Registration Cards, Results, Fee Receipts and Semester Report Cards.



Shri Gaurishankar Agrawal, Speaker, Chhattisgarh Legislative Assembly, inaugurating the mobile App

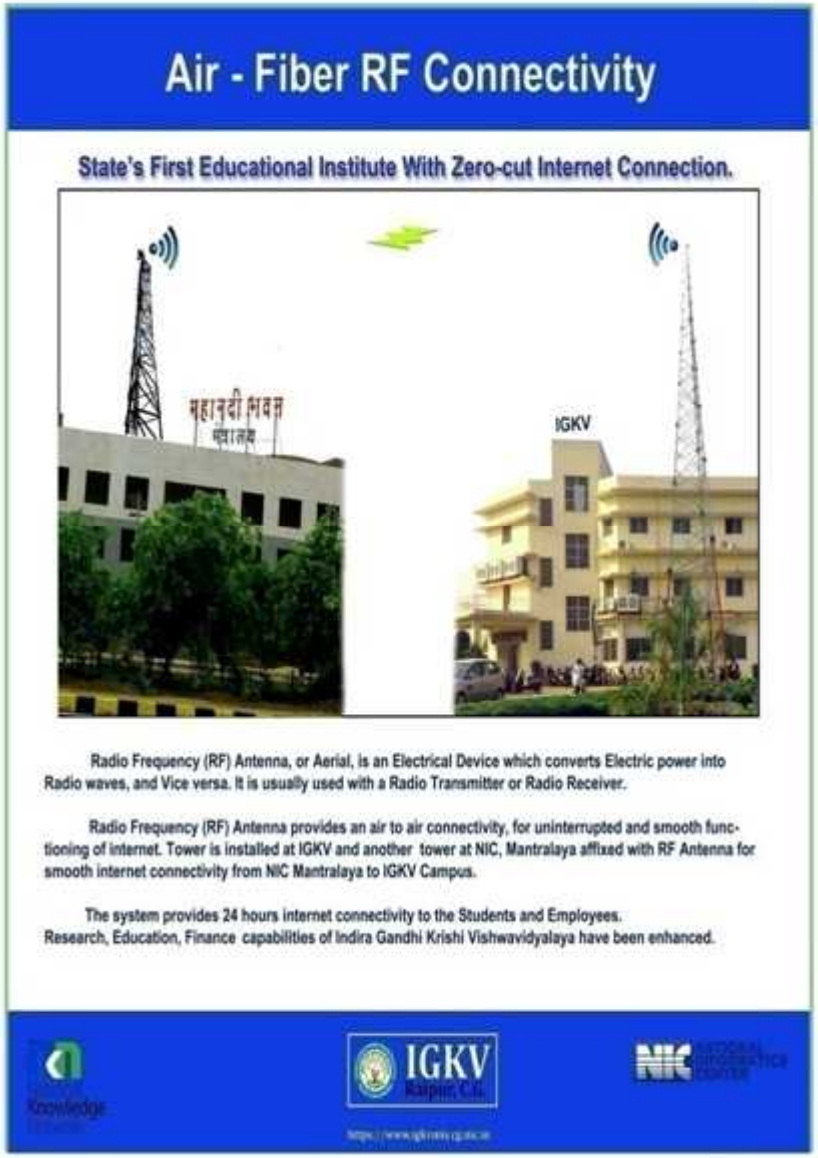
The IGKV MIS App can be downloaded from the official website of the IGKV Raipur, http://igau.nic.in and http://igkvmis.cg.nic.in. It can also be downloaded from Google Play Store.

The IGKV project is being coordinated by Sh. Ashok Kumar Banjare, Technical Director and Sh. Abhijeet Kaushik, Scientist-B, NIC Chhattisgarh State Centre, Raipur.


Infrastructure
Created

Administration

Infrastructure Created

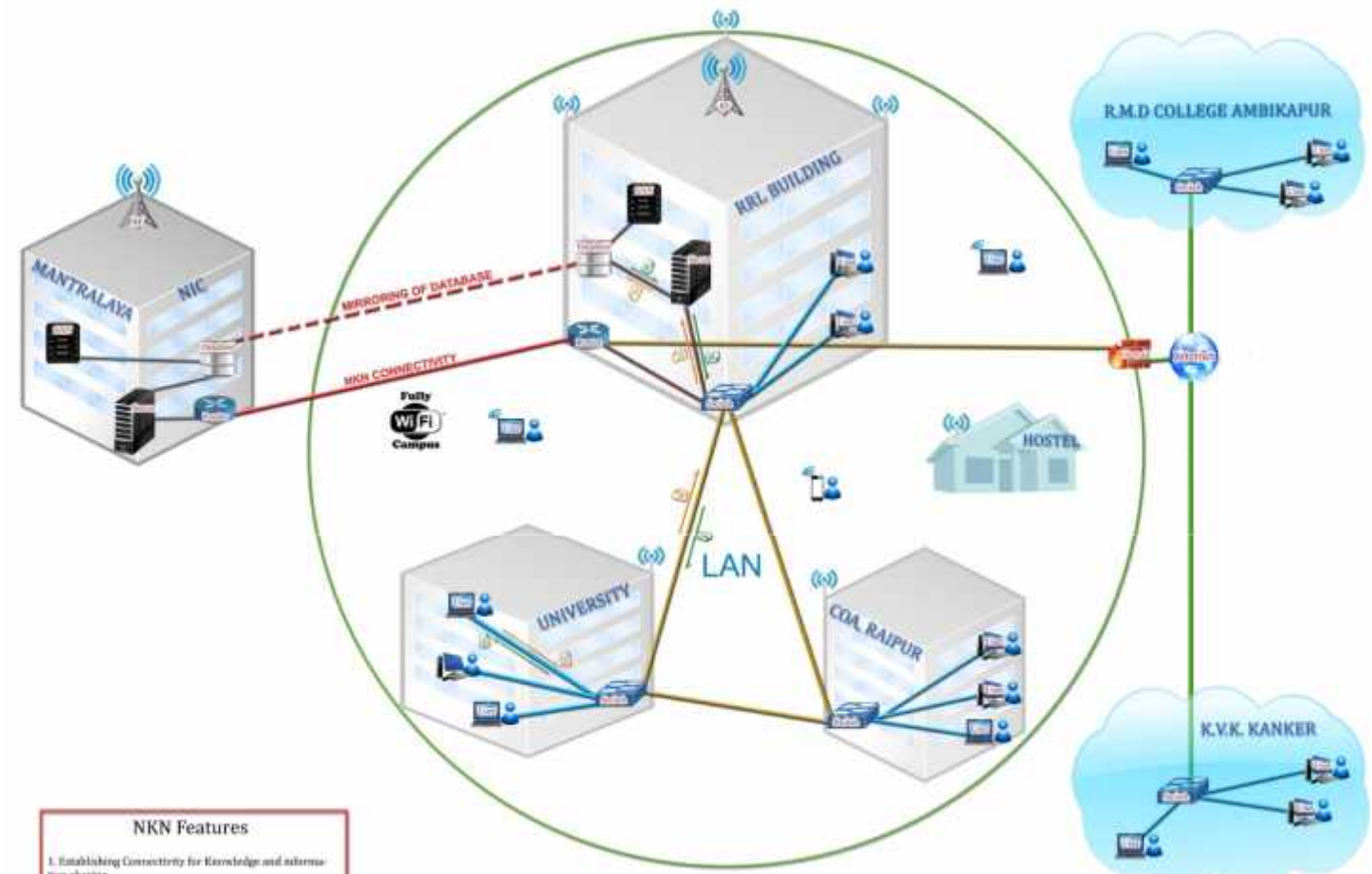


Salient Features

- New labs created / Existing labs upgraded
- 1 Gbps NKN Line
- 24 * 7 wi fi connectivity to offices, hostels and library
- Free Wifi Zone for Farmers and students

Administration

Infrastructure Created



NKN Features

1. Establishing Connectivity for Knowledge and information sharing.

2. Enabling Collaborative Research in emerging areas such as Climate Modelling.

3. Facilitating distance education in specialized fields such as emerging high tech areas covering info-bio-nano technology.

4. Facilitating an ultra high speed e-governance backbone for information sharing.

5. Provide 1 Gbps connectivity.

Legend

- -SGSV CAMPUS
- -Internet Connectivity
- -LAN Connectivity Switch to Switch
- -Mirroring of Database (NIC DB-SGSV DB)
- -User Device to Switch Connectivity
- -NKN Connectivity
- -Request Packet
- -Response Packet
- -Wi-fi
- -Wi-Fi User

OUTCOME of IGMIS

- **Standardized and streamlined the admission process with 100 % transparency.**

- **Reduced physical and mental stresses and financial burden of the candidate and Parents.**

- **Provided transparency and entire pre and post examination processes.**

- **Created centralized database which helps a lot to apex authorities**

- **Low cost solution for everyone.**

- **Zero violation of academic rule and regulation**

Contd...

OUTCOME of IGMIS

- **Increased Farmer's awareness towards disease, insect and nutrient disorder.**
- **Scientists are planning their experiment as per the need of farmer.**
- **Improved university capacities for financial management.**
- **Increased Administrative efficiency.**
- **ICT infrastructure created/improved in most of the colleges/research stations/KVKs/especially in the rural/semi urban areas**


Capacity building

Capacity Building Programme









Training Program for Controlling officer and Employee’s.
Separate Team for imparting training

Visitors









Future Plans

1. e-pest / disease surveillance
2. Mobile apps for Pulses and oilseed and other crop
3. Aadhar based identity of Student and Employee (Biometric)
4. Micro Level land use planning for customized agricultural advisories
5. E-sign for signature on documents

AWARD


Department of
Administrative Reforms &
Public Grievances
TRANSFORMING
India
India
India

THANKS



“Indira Gandhi Management Information System (IGMIS)

“A Digital Initiative for Improving Quality and effectiveness of agricultural education, Research and Extension for the benefit of students, youth and farmers”

Executive Summary

In order to improve Quality and effectiveness of agricultural education, Research and extension for the benefit of students, youth and farmers University has developed a web enabled, role and work flow based software solution “Indira Gandhi Management Information System (IGMIS)”. Currently IGMIS is serving 31 colleges (constituent and affiliated), 8 research stations and 23 krishi vigyan kendras (KVKs) situated in tribal dominated and naxal affected area to accomplish task related to education, examination, establishment, research, agriculture technology transfer (e-extension) and finance which offers a better solution to improve the productivity and efficiency of the manpower and for the entire system covering every branch of the university. IGMIS can be accessed from there on internet.

In order to promote Government of India guidelines on cashless transaction IGMIS is integrated with SBI MOPS page of online SBI and the university is availing facility for online collection of funds through all banks, debit and credit cards and challan. Funds related to different colleges/establishments/DDOs are being settled in their respective accounts online. To fulfill the requirement of settlement of funds with respective DDO’s account, separate MIDs (Merchant ID) in the name of various DDOs have been allotted. Total 33 different MIDs for various DDOs of IGKV have been created for transaction of funds. Web portal which is fully secured with SSL certificate.

The android based mobile app “IGKVMIS” has now reached to every student to provide information like Registration, Admit Card, Fee, Receipts, Latest News and Notification and job opportunity. It has significantly

reduced the cost of travel to approach the Colleges and Vishwavidyalaya. The process has minimized the office burden and human interference significantly.

Crop based information system is accessible from all KVK's and Research Station and system provided the remedies for Diseases, Insects and Nutrient deficiency Excess symptoms for most dominant Crops. Earlier, the technology was demonstrated by distributing Pamphlets, Banner, and Lectures. Now research information is being disseminate in digital farms. Nearly, 2000 Farmers visits the KVK every year. Crop based decision support system increased the efficiency of transferring the technology to the farmers of Chhattisgarh. The effectiveness of outcome have been increased significantly.

Android mobile Apps "Crop Doctor" which can be downloaded from Google Play store has now reached to significant number in Chhattisgarh and is being used in 21 other states of India, people of other countries like USA, Philippines, Bhutan, Pakistan etc. The most unique feature is that, it can work offline that is without internet availability. The farmer can see problems related to agriculture at his field itself. This has enhanced the efficiency of the farmer a lot. Crop Doctor provides the immediate solution of the problem in the prescription form which has increased the effectiveness of the outcomes. Farmers need not to rush the KVK and other agriculture agency which save the cost of the travel also.The module "Selection of Designer Plant" provided ease of convenience by searching suitable germplasm out of 23,000 paddy germplasm available at IGKV. The Crop Breeders and farmers are using this efficiently for the further improvement of paddy varieties.

"Paddy variety selection wizard" gives the selection facility of suitable variety based on the basis of maturity days and desired yield. Farmers can select paddy variety as per the availability of field. This feature helps the farmer of Chhattisgarh. This has increased the efficiency of farmer in selection of paddy variety and reduces the cost of consultation from the private agency. Now, farmers are getting suitable rice variety through this process.

System is also providing the information of various crop based information through digital media in the Agriculture Museum established in IGKV. Nearly 500 farmers and school students are visiting museum daily under most popular scheme of Chhattisgarh Government i.e. “Hamar Chhattisgarh”.

Crop Video Tutorials are available on web portal are freely available to all farmers of Chhattisgarh showing the methods of cultivation land Preparation, planting methods, management of crops etc. It has increased the knowledge of farmer and increased the productivity of the crops significantly. To organize knowledge and technology use of digital media like youtube, face book is also linked with the system in the classified format.

In order to make IGMIS effective and efficient trainings at different level like Officers Training, Employees Training, Farmer’s Training through KVK have been provided. The employee are now well versed to run the IGMIS from remote places the cost of the travel in terms of submission of file to HQ, Settling the claims to HQ has been reduced drastically.

OUTCOMES

The IGMIS significantly reduced the tremendous administrative efforts involved in admission process, frequent result declaration, disbursement of salary and settlement of claims of employees, timely allotment of budget and providing crop based information to the farmers. Now university is working with full potential.

- 100 % Cash less transaction to student to deposit their various fees.
- Provided 100 % transparency in the result processing, preparation of merits and seat allotments, huge displays of relevant information and availability of desired statistics and readymade reports.
- Enabled students to explore their history of entire enrolment of registration process through unique user ID and password.
- Created Centralized data base that helps a lot to the apex authority

to generate many reports.

- Role based security at user level, application level and data base level, protect the complete system.

- Provided transparent, smart and better administration.

- Apex authorities can watch real time status and expenditure on establishment and research schemes.

- Quick allotment of budget for salary dues, research trials improved the efficiency of the employees and scientists.

- Strengthening agricultural extension services by providing advisory services to farmers using ICT tools, Decision Support System, Database (Selection of Designer Plant/ Paddy variety selection) improved the dissemination of agricultural technology in much faster way.

- Mobile app “Crop Doctor” and “IGKVMIS” improved the value of the institution by providing latest information within no time.

Evaluation

The “IGMIS” has been primarily evaluated by Department of Administrative Reforms and Public Grievances, Government of India for e-Governance award 2016-2017. Thereafter, a team of Ernst & Young LLP (the consultant appointed by Department of Administrative Reforms and Public Grievances, Government of India for e-Governance award 2016-2017) conducted on spot study of the project. After the recommendation of Ernst & Young LLP, Govt of India asked for a presentation before Jury committee constituted for selecting the National awards on e-Governance 2016-17.

Winner of award

“IGMIS” has been awarded “SILVER e-Governance award 2016-17” under the category of “Outstanding e-Governance initiative by Academic

and Research institution". This award seeks to recognize the exemplary e-Governance projects by academic and research institutions for the benefit of the citizens. IGMIS is the only project awarded under this category.

Before and after problem faced

- Lot of efforts were being put to handle lakhs of applications for sorting and checking of applications received from students who wanted to take admission in IGKV. Launch of IGMIS reduced the burden by implementing online system for admission in university Admission process is fully computerized.

- Students were to deposit various kinds of fees at different stages in the respective institution by waiting in long queues was very difficult who were away/out of state and would have to travel to institution multiple numbers of times to deposit various types of fees. This has been resolved by making online payment through SBI MOPS. Various merchant IDs have been created for DDOs for online transactions.

- The crop based information was provided using pamphlets, banners, distribution of literature which took more time. It restricted the wide circulation among the farmers. The crop doctor mobile app helping farmer in picture based identification of insects, diseases and nutrient deficiency system.

- Maturity and yield wise selection of paddy crop was difficult task to select paddy varieties as per their field by farmers. Newly develop system has helped the farmers of Chhattisgarh in deciding the paddy varieties as per the yield and maturity days.

- IGMIS has developed a mechanism for selection of suitable plant based on plant descriptor which enhanced the efficiency of the scientist for the future improvement of crops.

- The android mobile app developed at IGKV, now providing results, registration card, fee receipt, latest news and notification on their mobile.

Introducing and implementation

To improve upon the bottlenecks, challenges, constraints, the Indira Gandhi Krishi Vishwavidyalaya took a bold step for re-engineering the process to make the system citizen centric and easily transferable and decided to implement the web based solution for e-governance. For successful implementation, system analysis was made at different hierarchical level. Academic rules and regulation were modifies to suite the requirement of the system. The system was designed exactly in the same way as the people were working. National Informatics Centre, a state centre, Raipur is selected as ICT partner for design, development and implementation support. 1 GBPS connectivity has been installed in the university.

Exiting manpower of technical manpower of Vishwavidyalaya/ colleges/ research station/ krishivigyan Kendra were utilized for execution of the project and service delivery in the remote institutions. They were imparted operational training for handling of the IGMIS Transparency is created in the project by computerizing all operations involved in IGMIS and providing all information on web-portal and some sensitive information through email/ SMS to interested students/ employee.

Bringing perceptible improvements

In the previous years, candidates sometimes along with their parents had to travel long distance to participate in the counseling process. The entire counseling process used to take 2-3 months. In order to reduce the time span for counseling and facilitates the students to take part in the counseling process from their homes or nearest internet access points, online system has been designed This web based application facilitates end to end support towards streamlining the admission processes. Error free processing of pre and post examination activities and to generate tabulation sheets and semester report cards are possible within time frame. Finance modules have been designed with a view to automate the functions of Drawing and Disbursing Officers (DDOs) in various colleges/ directorates/ KVKs..

Crop based information system is accessible from all KVK's and Research Station. Earlier the technologies were demonstrated by distributing Pamphlets, Banner, and Lectures. Now research information is being disseminated in digital farms Nearly 2000 Farmers visits the KVK every year.

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The Crop Video tutorial are available on web portal are freely available to all farmers of Chhattisgarh showing the methods of Cultivation land Preparation, Planting Methods, Management of Crops.

The IGMIS Android App has now reached to every student all the information like Registration, Admit Card, Fee, Receipts, Latest News and Notification are being seen by Students and Parents

Making Public Delivery System

Online registration, allotment of exam centre, admit card generation, OMR sheet preparation, allotment of duties, pay bill, TA bill, Medical bill, AC bill generation, online research project submission, employee profile, file channeling are computerized. This completes automation of all the operation involved in university management system without leaving gaps.

All the way, online admission project completed successfully with 100% transparency in results processing, preparation, preparation of merits and seat allotment. Eligible candidates could register themselves from any point of Internet and were able to download admit card for examination.

The immediate solution of the Crop Doctor in the prescription format increased the effectiveness of the outcomes. Farmers need not to rush the KVK and other agriculture agency which save the cost of the travel also.

Preparedness

System is ready to perform activities during the emergent situation, |n case of severe disease and insect attack, updated information/ suggestion can be send to farmers immediately and they can take the decision in its own field within no time. Information like to the student and employee of university can be provided through the SMS based alerts or through mobile app within no time if emergency come.

AWADHESH PRATAP SINGH UNIVERSITY, REWA (MP)

A brief write-up on the initiatives taken in the field of digitization by our University is given below for the National Convention on Digital Initiatives for Higher Education.

(i) Transparent admission procedure

The admission procedure of university has been made online. The students are admitted in different university courses on the basis of merit for which state govt. issues guidelines from time to time. The student can see the status of their admission online. He is also being informed directly on his/her mobile all the information related to admission using online facility for which MoU has been signed with MPONLINE portal.

(ii) Online Enrolment & Filling of Semester Examination Forms

The Enrolment process of students have been made online. The documents related to enrollment are verified by college level G2G login (which is usually Principal/Head). The online application is verified at university level also, and only after that online enrolment is generated. Similarly student can fill examination form online only by submitting information his registered enrollment number, class and semester.

(iii) Online submission of CCE & Practical Marks by the affiliated Colleges

The marks of CCE and Practical's are sometimes not sent to the university in time. This causes inordinate delay in declaration of results. Looking to the problem the university has decided for Online submission of CCE & Practical Marks by the affiliated Colleges by the specified date.

(iv) To check the fake mark sheets; Photograph of the candidate is being printed in the mark sheet.

(v) Online submission of University fees from the session 2016-17.

(vii) University is following online tendering process for procurement of goods and construction related work.

University is planning to design / implement an integrated Web-based University Management System which will include the various academic/administrative functionalities of the University. Some points which are being considered are -

- To explore the possibility to provide and use a unique id (like PAN No) to student of higher education for entire student life cycle.
- Provision to verify the student submitted result data during online admission application with state board of examination and state universities.
- Possibility for inclusion of student class attendance monitoring module at various levels.
- Possibility for inclusion of online degree verification module by outside agencies/recruiters for pass out students of the university.
- College infrastructure management module (building/class room / furniture /laboratory/seminar hall etc.) - can be useful for affiliation and exam centre planning etc.

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Accredited with Grade A by NAAC
Accredited with Grade A by KCG

National Convention on Digital Initiatives for Higher Education



CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

PRESENTATION OVERVIEW



CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

PEDAGOGICAL PRACTICES

- Google Classroom
- Moodle
- Edmodo
- MOOC's
- Blogs
- NPTEL online courses
- Online tests
- PowerPoint Presentations
- ICT based learning:
  - e-learning,
  - blended learning,
  - collaborative learning,
  - project based learning ,
  - reflexive learning.



Anytime Anywhere Access

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

IMPARTING DIGITAL EDUCATION

Smart Classrooms/ Laboratories

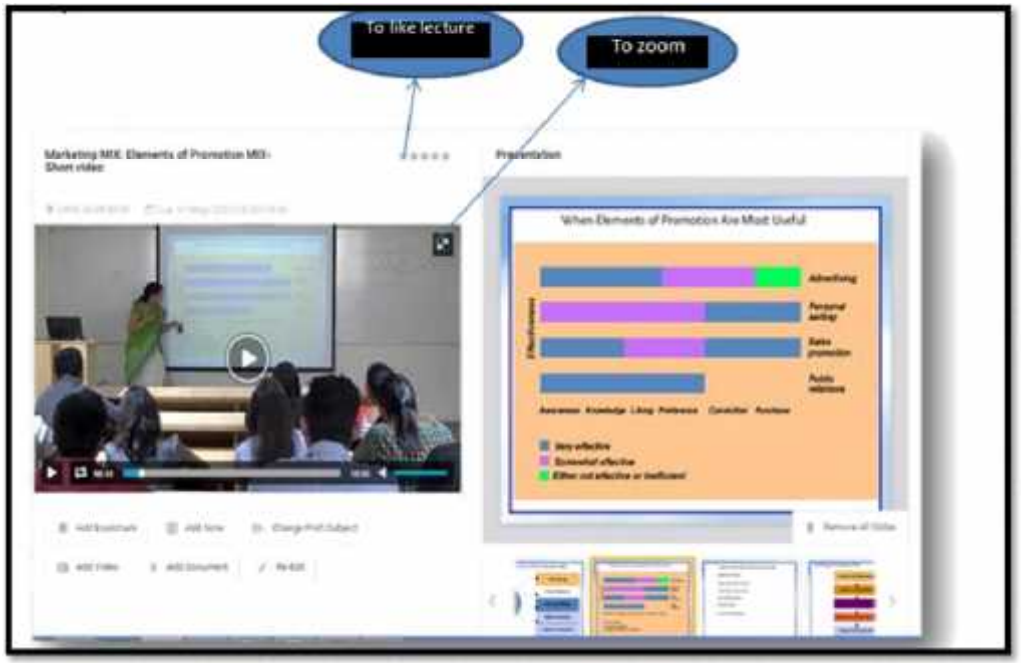
- Interactive whiteboards and Multimedia pen/stylus
- Document Camera/Visualizers
- Interactive session with projectors
- Digital podium
- iPads
- Virtual Laboratories
- ICT enabled auditoria, seminar halls
- Internet connectivity : 24x7 Wi-Fi (240 mbps bandwidth)





COMPREHENSIVE VIDEO-BASED LEARNING PLATFORM (IMPARTUS)

Impartus provides innovative video-enabled learning solutions that drive better outcomes.



Interactive features are :

- ✓ Searchable Videos
- ✓ Tap-To-Toggle
- ✓ Video Bookmarks
- ✓ Notes
- ✓ Hand-Raiser
- ✓ Post-Editing

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

IMPARTING DIGITAL EDUCATION



- **VIDEO CONFERENCING FACILITY**

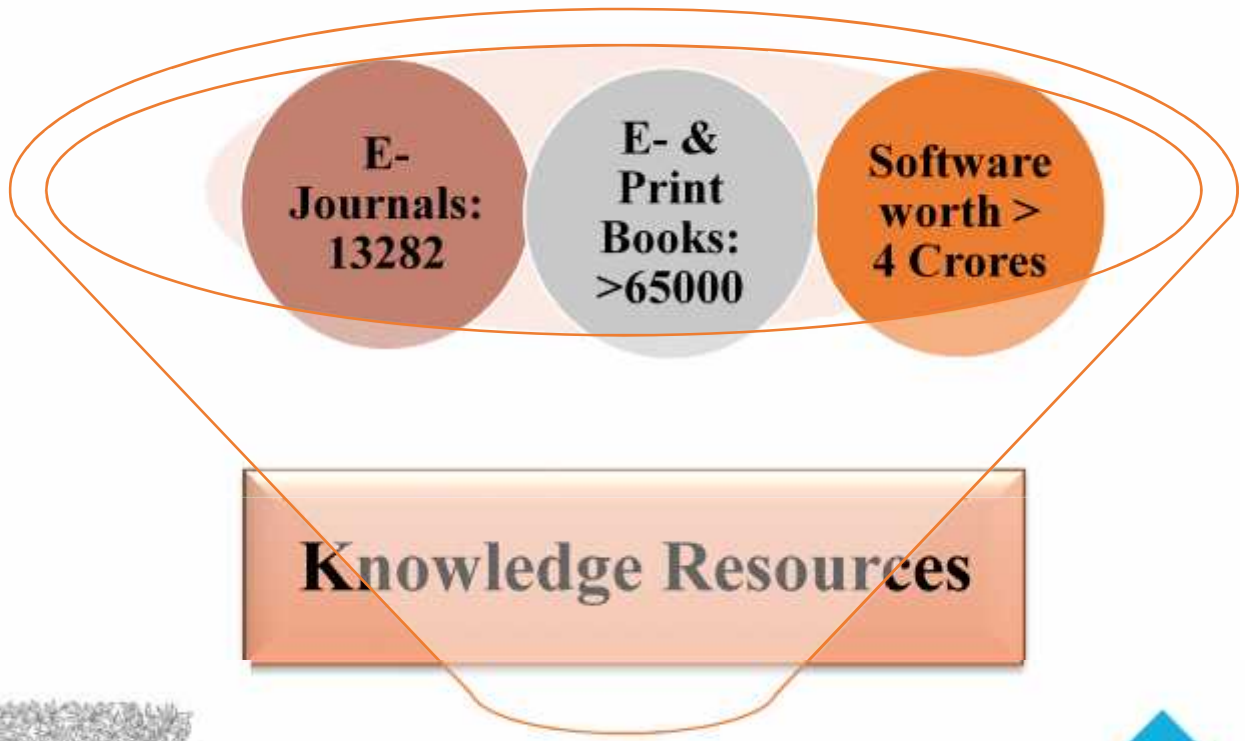
- **SWAYAM**
  Students are encouraged to enroll for SWAYAM Courses.

- **National Digital Library (NDL)**
  All Faculty Members are registered on NDL portal.

FREE ONLINE EDUCATION
swayam
शिक्षित भारत, उन्नत भारत

National Digital Library of India

Knowledge Resources



CHARUSAT
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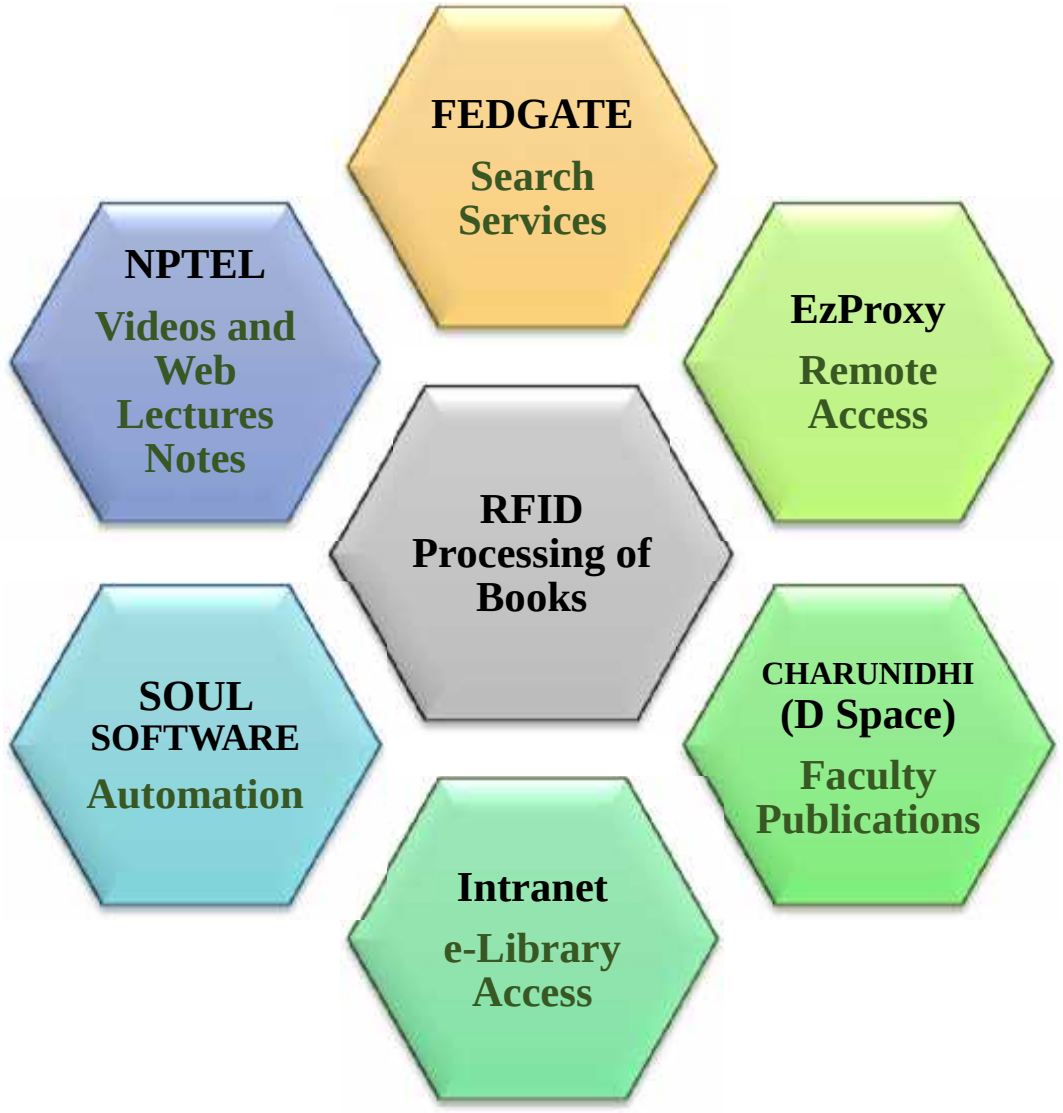
Digitalization of Library



Participation in Resource Sharing Networks / Consortia:

- INFLIBNET
- DELNET
- Shodhganga
- IIM
- AMA

IT Infrastructure: Cloud Architecture

Cloud/Green Computing, with
- **65 Virtual Servers**, leading to
- **Application and Infrastructure virtualization**



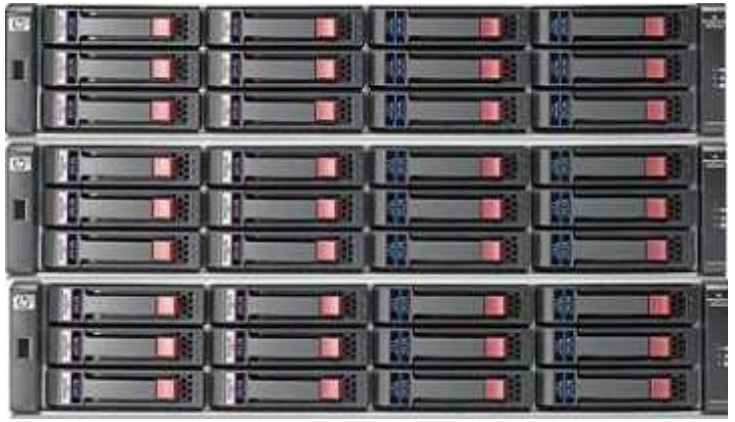


HP C7000 Blade Centre housing 7 Blades and implemented cluster of it. Cluster having total
- 624 GB Ram
- 221 GHz VCPU
- SAN with the capacity 20 TB
- Vmware 5.5 virtualization

The first Private University in the state of Gujarat to have **CLOUD ARCHITECTURE**

IT Infrastructure

- **24X7 Wi-Fi services: 240 MBPS band width**
- **71 high end Wi-Fi access points**
- **Central depository for software.**
- **Campus recognized through Microsoft Edvantage Program as Platinum Level Partner**
- **Video Recording of Lectures and 125 Projectors.**



CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

E-Governance



Customized ERP

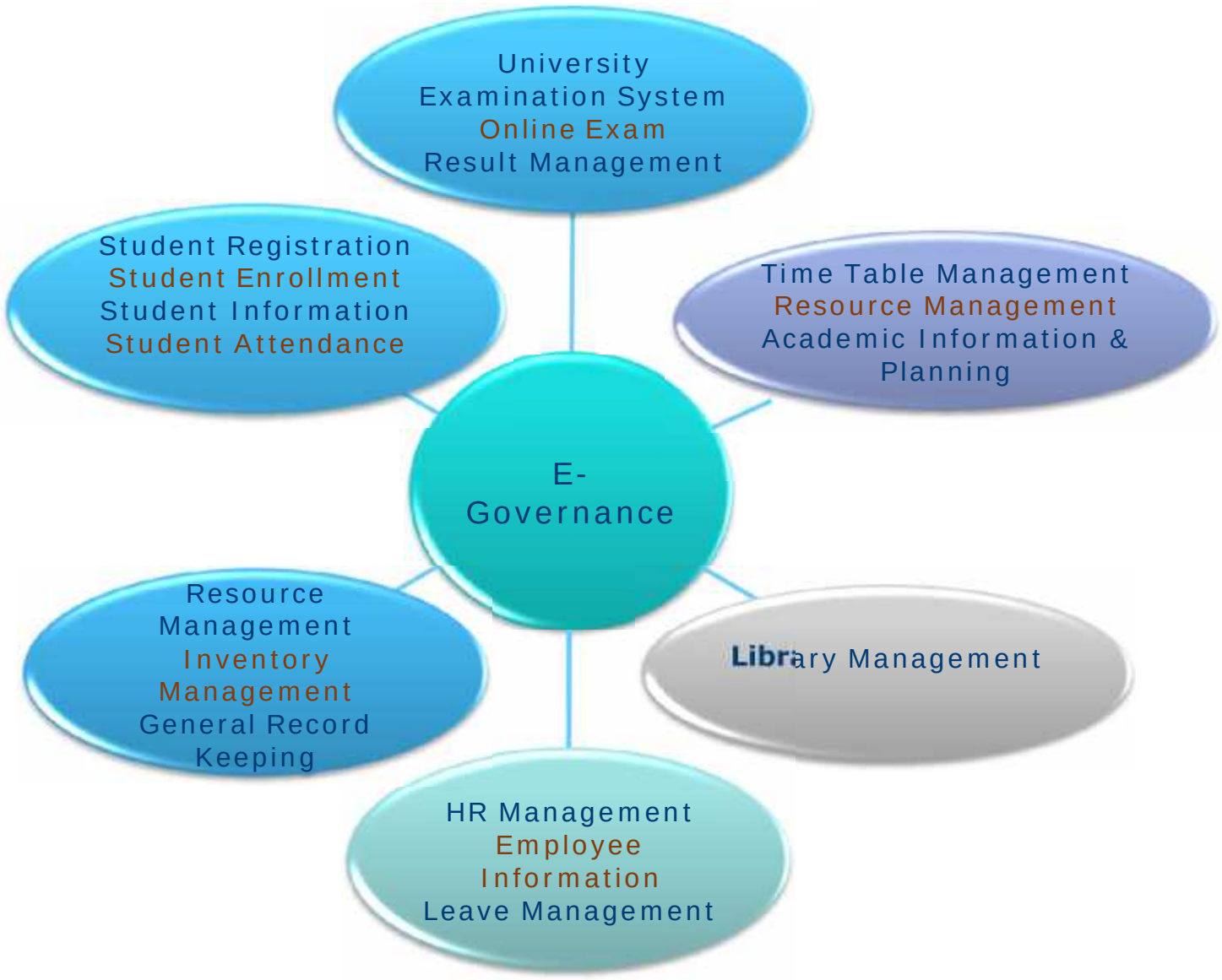
- 13 Modules
- Paperless/Seamless Governance
- End-to-End Integration
  - Student's enrollment to degree generation
  - Employees entry to exit

Other process automation and digitization

- Biometric presence of staff and students
- E-Notice boards
- Customized Mobile Apps
- Smart ID cards
- Cashless Transactions
  - Fee Collection
  - Salary Disbursement
  - All payments and receipts

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

E-Governance



Mobile Application : CHARUEMP

CHARUEMP is an in-house developed Mobile Application



Mobile Application : CHARUEMP





CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Organs of Quality Teaching

Facilitated by Prin. B.I. Patel Human Resources Development Centre

Teachers

- Domain Training
- Industry Exposure
- Leadership Grooming

Management

- Strategic Thinking
- Leadership Grooming

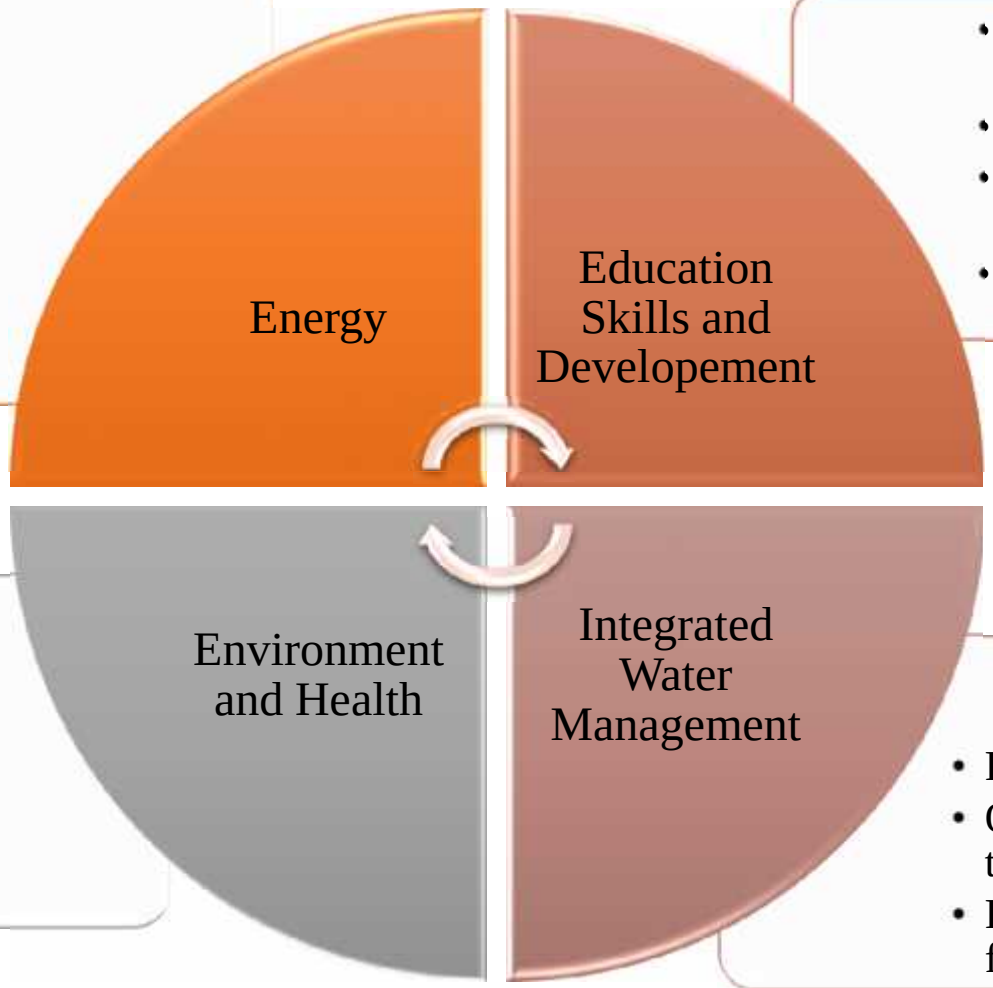
Students

- Three – Tier Mentoring
- Student Wellness Programme

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Unnat Bharat Abhiyaan

- Solar Plant (310 kVA capacity)
- LED Lighting
- Photo Sensor and movement sensors Controlled Lightning
- Research in Non Conventional Energy Resources



- Teaching Rural Schools students
- IT Training
- Vocational Training
- Rural Business Incubation

- Focus on Women's Health
- Focus on Life Style Diseases
- Yoga for All

- Rain Water Harvesting
- Optimum usage through automation
- Reuse of treated water for gardening

CHARUSAT Rural Education Development (CREDP) Programme



Launched on September 26, 2013

- **Focus Areas**
  - **Strengthening of teaching learning process with global perspective.**
  - **Guidance for strengthening of school Laboratory and Library Resources.**

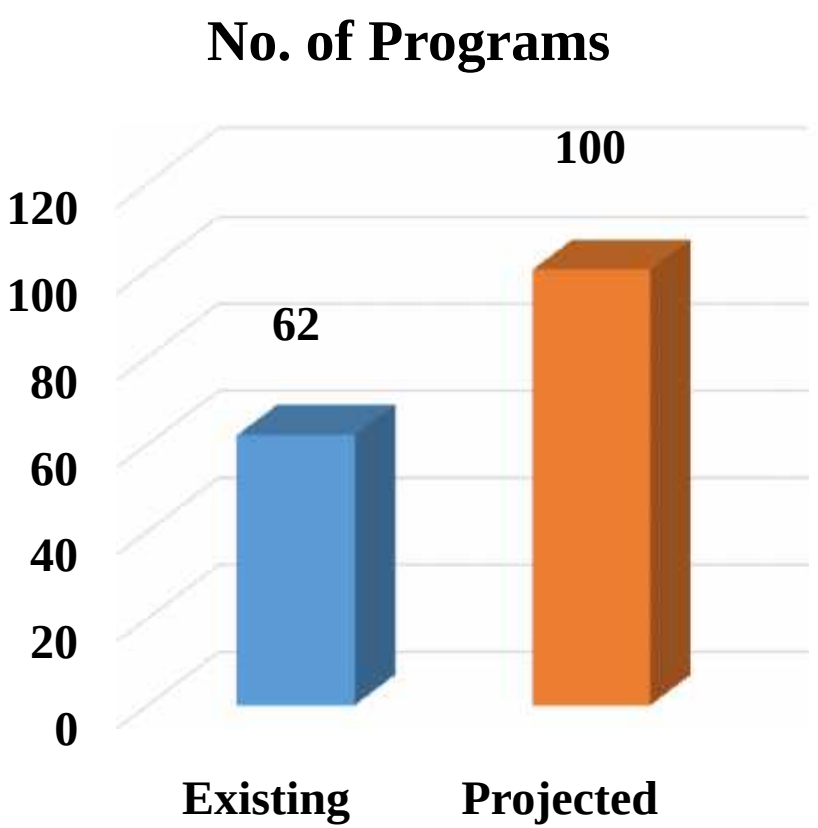
- **School Survey: 23926 students from 73 schools of all standards surveyed to understand their needs.**
- **Campus visit by 6158 students of different schools from rural areas.**
- **124 teachers have been trained.**
- **117 parents have been counseled.**

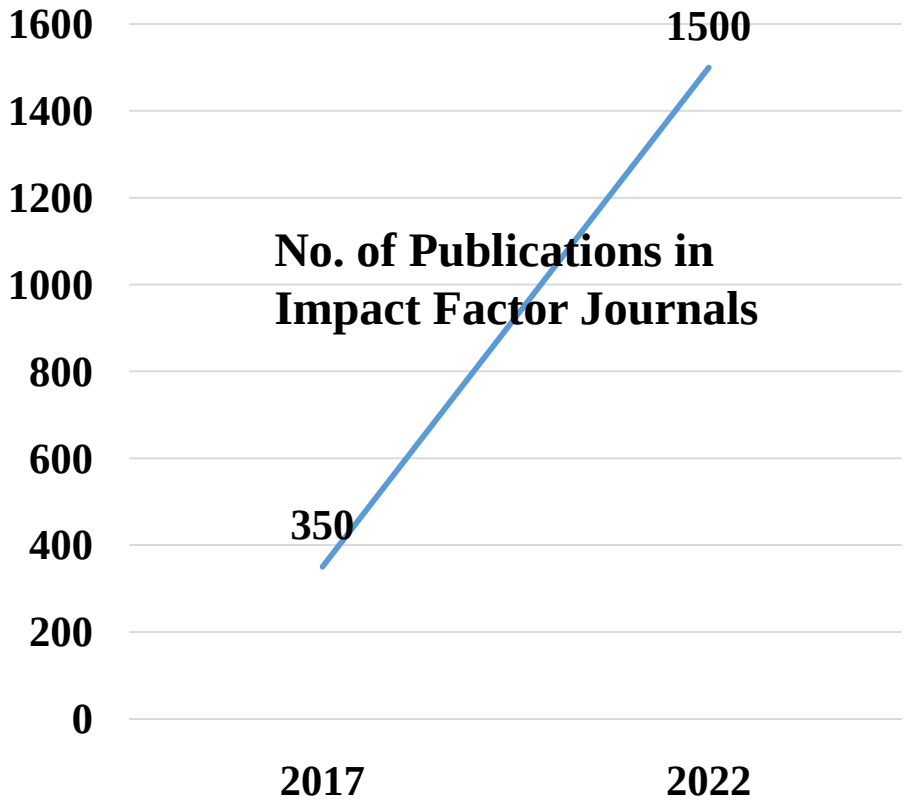


CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Strategic Plan

Strategic Plan for five years is in place with involvement of stakeholders .
Vision is to be AMONG TOP 50 UNIVERSITIES in the country with internationalization of the campus.
Envisioning to be a World Class University in 15 years.





Reflections of Visionaries



Chief Guest, 1st Convocation
18th January, 2012

- *"I am Happy to know that this university has a goal set for mission of social upliftment with components of knowledge acquisition and imparting education."*

Dr. APJ Abdul Kalam
Former President of India and Architect of Indian Missile Programme



VASVIK Award Function,
7th October, 2010

- *"CHARUSAT is indeed a golden truth of GUJARAT"*

Shri Narendra Modi
Former Chief Minister of Gujarat and Hon'ble Prime Minister of India

Reflections of Visionaries



Chief Guest, 2nd Convocation, 16th February, 2013

- *"I was proud to see that CHARUSAT has the dream of becoming world class in education and research. This dream can be converted into reality, if we match this 'great ambition' with 'stimulating ambiance'. I have no doubt that this dream will become reality."*

Dr. R A Mashelkar
National Research Professor and President, Global Research Alliance National Chemistry Laboratory



Inauguration of CMPICA Building, 25th December, 2012

- *"I am Extremely impressed with CHARUSAT as it is driven by Research and innovation"*

Dr. Vijay Bhatkar
Architect of India's First Super Computer-PARAM

Reflections of Visionaries



"CHARUSAT is the best example of private educational institute supported by people that serves the society with responsibility, commitment, Transparenc y and integrity ."

Shri Prakash Javadekar,
Hon'ble Union Minister of HRD

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY



Thank you

INNOVATIONS / BEST PRACTICES @ CHARUSAT

Charotar University of Science and Technology (Charusat) is an "A" grade NAAC accredited University located in rural location of Central Gujarat. The University aims to be amongst top 50 Universities of our nation by 2020 and in next 15 years evolve as a World Class University. Genesis of the University has been unique in a way that it has been established by a Public Charitable Trust with membership of more than 2500 members and supported by more than 3000 philanthropic donors. It is in its true sense a University by the Society of the Society and for the Society.

The best practices adopted by Charusat are in four broad areas:

A) Governance & Management:

- Values of Honesty, Integrity and Transparency
- Professional autonomy and development opportunities to all the employees
- Best Physical Infrastructure
- Advance Digital and IT Infrastructure
- Customized ERP facility, paperless and transparent management

B) Focus on Teaching-Learning

- Curriculum aligned with Industrial requirements
- Human Research Development Center for teachers covering Domain Knowledge, Industrial and Leadership Training
- Endowment Chairs
- Humanities, Social Sciences and Liberal Arts courses
- Full-fledged Choice-Based Credit System
- ICT based blended learning
- Online Testing and Assessment
- 3600 Career guidance and Placements of students
- Holistic development of Students through three-tier counseling system
- International Travel support to faculties
- S.S. Bhatnagar Lecture Series

C) Focus on Research

- Dedicated Research Budget
- Sophisticated equipments and software
- Best Research Paper Award
- Consultancy and funded projects by Teachers
- Dr. K C Patel R & D Center
- Charusat Space Research & Technology Center
- Post-Doctoral fellowship
- Research grants to Faculties
- E-Journals, Internet and Books

D) Extension and Community Development

- School Education and Healthcare to community
- Development of all section of society-children, housewives, small vendors, rural entrepreneurs
- Seminars, Workshops, Exhibitions, Symposia

Charusat aspires to be World Class University by serving all the section of Society.

Digital Initiatives@ SRM University

Dr K Mohan
Director – ITKM
July 8, 2017

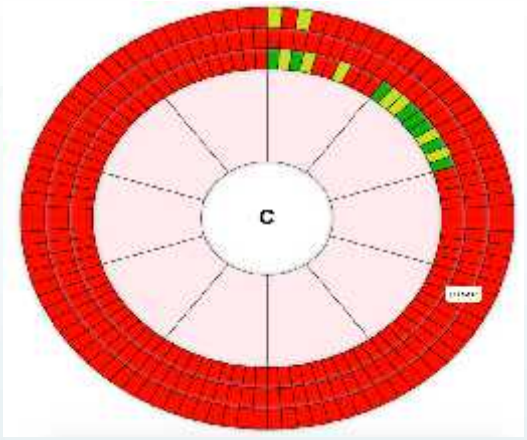
Technology Infrastructure for Enhanced Learning

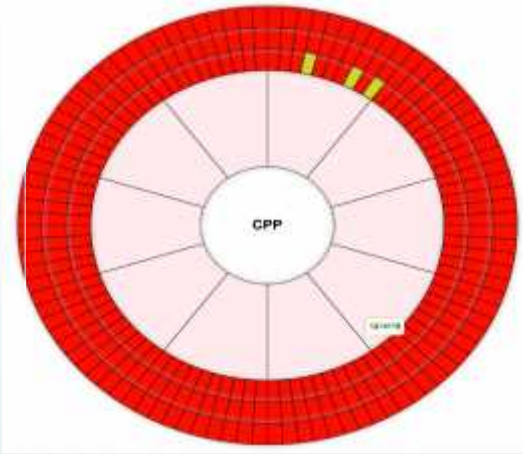
- State-of-art Tier 2 Data center, with 10G network backbone, housing high-end blade servers, storage, in VM environment
- Seamless internet access – 1gbps NKN & Tata, 500mpbs from Airtel, MPLS between campuses
- 2000+ Wireless Access points, across the academic and residential blocks
- 3000+ LAN points across the labs, workplaces, classrooms, etc
- Flipped classrooms & Interactive Audience Response Systems in classes
- High Performance computing – 60+ nodes, for Research scholars
- Audio/Video conference facility to connect up with subject experts (National and Foreign Universities)
- Unique Medical Simulation Lab
- Intranet, LMS, and Knowledge repositories – Moodle, Dspace, Microsoft SharePoint
- Samsung tablets with preloaded eContent of teaching materials, for Medical & MBA students
- Students Portals integrated with Payment gateways for online fee payments

Skilling the students Digital way

- eLab - an Auto Program Evaluation Tool
- Learning Programming Skills – C, C++, Java, Data Structures, Object oriented programing, Python, SciLab, etc
- Smart Phone / Tab / Laptop compatible
- 300+ programs
- 3 levels of learning complexity based on Bloom's Taxonomy
- Bridges skill gap between industry and academia (increased employability)
- Support for Virtual Lab practices

SRM eLab





QUESTION

SESSION: IO

Q.1211112: Square of ASCII

Question Description

Find the square of the ASCII value of a given character

TEST CASE !

INPUT

a

OUTPUT

9409

CODE CPP

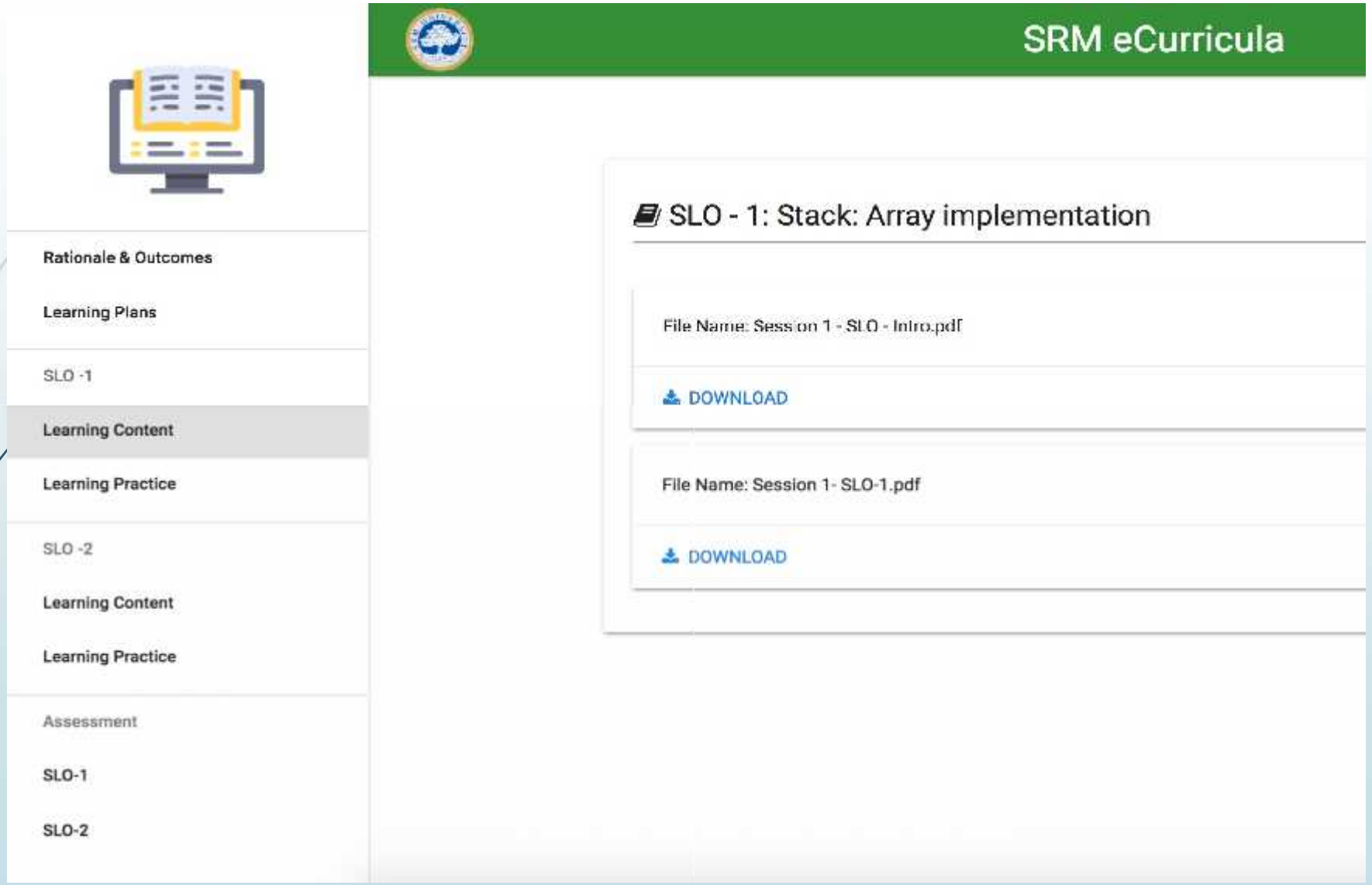
```cpp
#include <iostream>
using namespace std;
int main()
{

  cout<<"srm university eLab";
    return 0;
}
```

INPUT

eCurricula (TPACK)
(TPACK – Technology, Pedagogy and Content Knowledge)

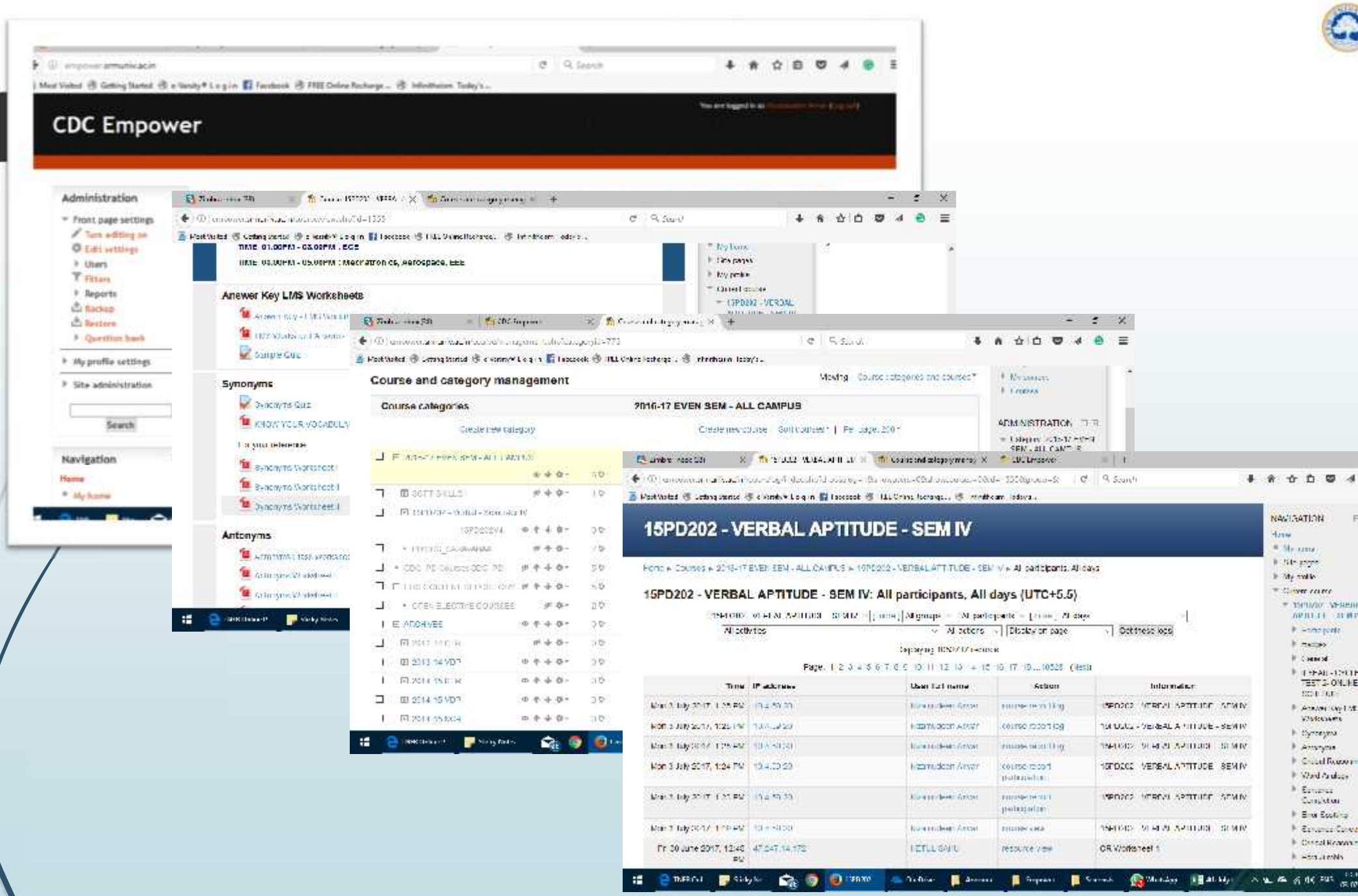
- Curricula (syllabus, learning materials, assessments, credits, quality checks…) in TPACK mode
- MOOC support Learning Management System for Higher Education Courses
- NAAC and ABET compliance, Outcome Based Education, CBCS, Guided Track Learning, CDIC support
- PEO, PLO, CLO, SLO mapping and graduate attribute tracking , measurements, achievement, online *(PEO – Program Educational Outcomes, PLO – Program Learning Outcomes, CLO – Cou Learning Outcomes, SLO – Session Learning Outcomes)*
- Learning Progression tracking management using Bloom's Taxonomy
- Learning Outcome Measurements, Achievements and Corrective Actions inbuilt
- Supports: Flipped Classroom, Problem Based Learning, Project Based Learning, Inquiry Based, Based Learning etc.
- Different Types of assessments (quiz, short, long, case study etc.,) using bloom's levels
- Web browser application and needs no 'app' or 'software'
- Supports auto-QP generation, auto-evaluation, auto-grading etc.,
- Tutorials, Remedy Sessions online conduction and evaluation

eCurricula - (TPACK)



CDC Empower & Online Testing Portal: Skilling for Placements

- Empower – Online Learning Management Portal, accessible on-campus, off-campus, including on Mobile
- Over 50000+ active users
- Over 1000+ students access simultaneously
- Largest repository of over 15000+ MCQs across verbal, quantitative, logical and soft skills
- Continuous assessment, results metrics help to enhance placement preparation and mentoring


CDC Empower
Administration
Front page settings
Turn editing on
Edit settings
Users
Filters
Reports
Backup
Restore
Question bank
My profile settings
Site administration
Search
Navigation
Home
My home
Answer Key LMS Worksheets
Sample Quiz
Synonyms
Synonyms Quiz
KNOW YOUR VOCABULARY
Synonyms Worksheet I
Synonyms Worksheet II
Synonyms Worksheet III
Antonyms
Course and category management
Course categories
2016-17 EVEN SEM - ALL CAMPUS
Create new category
Create new course
15PD202 - VERBAL APTITUDE - SEM IV
15PD202 - VERBAL APTITUDE - SEM IV: All participants, All days (UTC+5.5)
All activities
All actors
Display on page
Settings log
Time
IP address
User full name
Action
Information
Fri 30 June 2017, 12:48 PM
ADMINISTRATION
NAVIGATION

Institutional Digital Repository **of Knowledge Assets**

- Conference papers & presentations – power point, audio, video
- Course Material
- Course Syllabus
- e-books
- Electronic Theses & Dissertations (ETD)
- Previous Question papers
- Published Research Articles
- Lecture notes to students

Institutional Digital Repository **of Knowledge Assets**



Online Courses

- SRMOCW1 – Employee Engagement for Organisational Excellence
- Website – pizza.com Spring 2015, No of students enrolled 44
- Digital Lesson Plans – 1567 students are benefitted
- Digital content for Business Analytics course
- Video recording of classes, for students knowledge sharing and future learning
- Question papers database

Projects in pipeline

- Cashless Campus – Student ID card integrated for cashless transactions, on campus
- Digitisation of University certificates
- Course content availability on SWAYAM
- Digital kits for skill development courses – Oracle, Java, RedHat, CCNA, etc
- Preparatory material for higher education courses – GRE, TOEFL, GATE, etc

Dr K Mohan
Director – ITKM

Coordinates -
Email: director.itkm@srmuniv.ac.in
Landline: 044-27417321, 27417325

THE GLOBAL OPEN UNIVERSITY, NAGALAND

A State University established by the Government of Nagaland under The Global Open University Act 2006 (Act 3 of 2006)

Headquarters: Dimapur 797 115 Nagaland

No. TGOUD/10-1/2015/PT/ 166 Dated Dimapur the 5th of June 2017

From Prof H.N.Dutta
Vice Chancellor
The Global Open University Nagaland, Dimapur
P.O. ARTC, Dimapur -797115

To, Prof Dr Jaspal S. Sandhu
Secretary,
University Grants Commission
Bahadur Shah Jafar Marg
New Delhi-110002

Sub: A brief report on digilitazation of The Global Open University Nagaland.

Ref: Letter D.O. No F1-1/ 2017(Secy)

Respected Sir,

We have received your communication cited above for which I am thankful to you and as per the schedule, I shall be attending the National Convention on Digital Initiatives for Higher Education to held at Vigyan Bhavan on 9th and 10th July 2017.

Meanwhile, as desired, I would like to submit for favor of your kind consideration that The Global Open University Nagaland, Dimapur, has taken up certain initiatives in the field of digilitazation covering certain areas of the University as follows –

1. Established Wi-Fi in the campus covering the hostels both for the boys and the girls and faculty members and university employees residing in the campus
2. Examination section has been dizitalised and Oracle based software for examination section has been established
3. Student data are all dizitalised
4. Payment from the university and receiving of the fee from student dizitalised

In this regard I would like to inform you that we are hopeful to carry forward this dizilatization mission further covering other areas of administration of the university

This is for your kind information and necessary consideration for which I shall remain thankful to you

Yours sincerely,

(Prof H.N.Dutta)
Vice Chancellor ,
The Global Open University Nagaland
P.O. ARTC, Dimapur -797115

Digital Initiative for Higher Education

Presented by : Prof. Dr. Raja Ram Yadav
Vice Chancellor
Veer Bahadur Singh Purvanchal University, Jaunpur (U.P.)

Objective

- University envisioned to reduced day to day problems of the students as well as staff of the university to handle the large volume of Data. University handles around 5.60 Lacs students spread over around 765 colleges in 5 Districts of eastern U.P.
- Make University more efficient by increasing the accountability and transparency of University.
- University decided to improve its examination system, one of the major functions of the university on priority basis.

Modules Running in The University

- Offering of Online examination forms. Issuance of Admit Cards, Statement of Marks to the students.
- Nominal Roll, Verification Sheets, Seating Plan to the Colleges/Departments .
- Making statement of marks live on the website almost on real time basis.
- Online registration & fees submission of campus student.
- Students grievance redressal system.
- Accounting system of the university.
- E-Library & E-Resources.
- Website Section (User Id & Password Provided to Departments/Colleges to cater their need of the examination)
- Issuance Migration Certificate & Provisional Degree certificate Online
- Online Marksheet Verification
- Online Alumni Registration

Modules under Process

- Affiliation process of the colleges with the university.
- Pension and GPF of the employees.
- File Tracking System.
- College Information Management System.

Impact of Digitization/ICT

- Improving the access to the system through online education
- Improving the quality of teaching especially across remote locations
- Increasing transparency and strengthening systems, processes and compliance norms in Higher Education Institutes
- Measure student learning participation and effectiveness
- Analyze student behavior to maximize students involvement, optimize retentions, and improve placements
- Examination Results Error reduced from 8%(2014) to 0.25% (2017)

Thank You

Presentation of Examination System and Result Processing

Veer Bahadur Singh Purvanchal University, Jaunpur (U.P.)

Presented by : Prof. Dr. Raja Ram Yadav
Vice Chancellor

Objectives of Evaluation Process

- Impartial evaluation of Answer books
- Timely declaration of results
- Error free results
- Grievance handling
- Establishing faith in evaluation system of the university
- Generating a feeling of commitment among employees

An Overview of Evaluation System

- Colleges 765+
- Districts (Jaunpur, Azamgarh, Mau, Ghazipur, Allahabad)
- Student count 5,60, 000
  - Undergraduates 5,10,008
  - Post graduates 49,992
  - Male 2,40,213
  - Female 3,19,787
  - Total
- Answer books **32,00,000**

Evaluation System: Process

- Collection of answer books and documentation
- Processing
  - Opening of bundles and making smaller bundles of 75-75
  - Stapling of answer books and maintenance of records
  - Sending answer books to the evaluation centre
  - Records

Challenges before Evaluation System

- Processing of answer books
  - Pre evaluation
  - Evaluation
  - Post evaluation
- Proper evaluation of answer books (32 lakhs)
  - Maintenance of sanctity of Answer Books
  - Impartial evaluation
  - Handling of Answer Books

Challenges before Evaluation System (Cont…)

- Inviting examiners for evaluation
  - Eligibility of examiners
    - Finalized by BOS
    - Approval letter by principal/HODS, Salary statement/passbook of 3 yrs.
  - Invitation to eligible examiners
    - Handling crisis of examiners
    - Sending invitation letters

Challenges before Evaluation System (Cont…)

- Evaluation by examiners (1000 approx/day)
  - Arrangement of Seating, lodging, boarding, food etc
  - Refreshments at work
- House keeping
- Hostel accommodation (during March-June)
- Human resource management (Manpower planning)
  - 300 employees,
  - 50 Teachers and
  - 250 daily wages workers
  - Dynamics of Industrial relations

Challenges before Evaluation System (Cont…)

- Timely declaration of results
  - Arranging all components of results
    - Practical/ Viva-Voce marks
    - Internal assessment marks
    - Answer Book Marks
    - Error free results
    - Grievance Handling
    - Litigation handling and presenting Answer Book before honorable court/RTI etc

Evaluation System Process

Processing of Answer Books

Pre evaluation

I. Collection of Answer Book to the collection centre immediately after every examination

II. Transporting of Answer Books from collection centre to central evaluation Centre

III. Subject wise sorting of Answer Book

IV. Record keeping Sending P-6 form to the result preparation team

V. Bundle cutting and preparing bundle of 75-75 Answer Book

VI. Hiding roll number and other details on Answer Book by stapling

Evaluation System Process (Cont…)

Processing of Answer Books	Team
Evaluation	
VI. Receiving of Answer Book from Team-B	Team-C
VII. Record keeping	Team D
VII. Distribution of Answer Book to Examiners	Team D
VIII. Evaluation	Examiners

Evaluation System Process (Cont…)

Post evaluation	
IX. De-stapling to Open the Answer Book	
X0. Data feeding into computer and Award List Preparation	
XI. Cross examining/Verification of Marks and making changes (If any)	Examiners
XII. Result preparation and Final Posting	
XIII. Manual checking by respective departments/representative	
XIII. Procurement of Award List	Confidential Deptt.
XIV. Procurement /Sorting of Answer books and keeping of Answer Book for at least one year	Confidential Deptt.

Evaluation System Process (Cont…)

Result Declaration	
Through result declaration committee constituted by Vice-Chancellor	Senior Principles/HODs of Colleges/campus
Grievance Handling Online/Offline	
Inviting applications for scrutiny of Answer Book	
Change recommended (if any)	Two member committee constituted by VC
Unfair means (UFM) If Any	Committee constituted by VC comprising senior academicians /Principles/HODs of Colleges/campus

Conclusion

- Evaluation process is more of a managerial activity rather then the academic activity
- Our objective of evaluating answer books impartially and timely so that results can be declared in time
- Reduced errors (Due to wrong feeding/incorrect role numbers/Absentees statement etc.) from **8% to 0.25%**
- Since last four years we have declared results like;
  - 2013-14 within 90 days
  - 2014-15 within 40 days **(Last Exam was on 15th May, 2015; Result declaration on 25th June, 2105)**
  - 2015-16 within 24 days **(Last exam was on 09th May, 2016; Result declaration 2nd June, 2016**
  - 2016-17 within 15 days **(Last exam was on 20th May, 2017; Result declaration 5nd June, 2017**

Thank you very much

Digital Initiatives of the Directorate of Extension Education, TNAU, Coimbatore

BY

Dr .K.Ramasamy,

Vice- chancellor

Tamil Nadu Agrl University,

Coimbatore

Digital initiatives carried out at Educational media centre

- ✓ Around 2500 students of various constituent / affiliated colleges of TNAU were imparted with Techniques of video production processes, editing procedures and backgroundvoice over skills on varied languages
- ✓ Video camera handling skills though advanced techniques of Digital video production utilizing the Sony Digital Video Camera

Editing with advanced softwares

- ✓ Advanced editing techniques are being imparted with the editing Softwares like Adobe premiere/Avid Media composer/ and apple series like Final cut pro which is of recent development

Cloud computing videos

- ✓ Cloud computing of Agricultural videos in 3GP on path breaking agrl technologies of about 1712 are being produced by 100s of students representing the UG/PG/Phd levels of TNAU and uploaded in the computer cloud space generated by the State Government of Tamil Nadu along with Amazon

Crash course on multimedia

- ✓ Crash course on media like media advertising Film making, Graphic Designing, Animation Techniques are being offered enrolling 10s of 100s of students to learn media skills and eligible to get employment at private media firms and advertisement agencies
- ✓ Agrl video films produced in the bluray format which is high definition video quality in the digital era

Digital initiatives undertaken at e-Extension centre

- ✓ Establishment of Agri tech portal, a digital initiative started from 2008, created wide range of opportunities to the students community, to gain first hand information on the recent advancements in ICT Products like Agritech Portal, Expert system, mobile app application in Expert System ,e-Velanmai, and Video conferencing

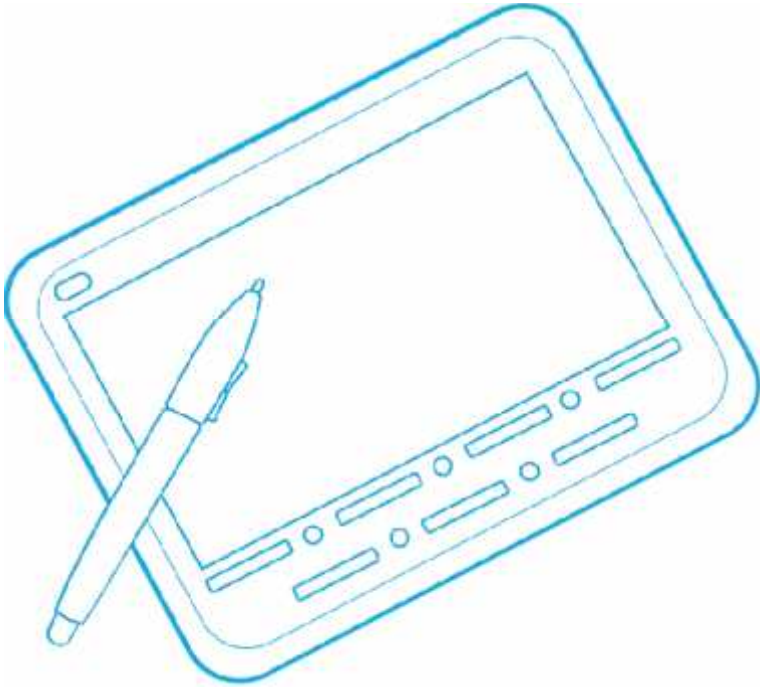
Agritech portal

- ✓ Nearly 22,550 students across Tamil Nadu got exposed on these products who visit the university on educational tours every now and then for past 8 years
- ✓ The portal messages are accessed with the Google play store in Public Domain and M-how Store in the Government of India Domain

Utilitarian benefits for students

- ✓ Benefits accrued by the students include assignment preparation
- ✓ Content for Theses materials
- ✓ Technical details in the form of texts/videos/photos and audio
- ✓ Updated and renewed periodically

Ready to scale up



Transforming Examinations

Digital Innovation in exams- *paperless digital examinations*

Dr.K.Ramasamy,
Vice - Chancellor,
Tamil Nadu Agricultural University
Coimbatore

Written Examinations are everywhere…

25m

university students take

250m+

exams annually
in India alone



Challenges:

Security: before and during exam

Cycle time: lengthy, complex review & revisiting

Malpractices: paper leaks, candidate impersonation & cheating

Logistics: across multiple locations, storage of answer scripts

Evaluation : security and transparency, errors in marking & tabulation

No analytics: lack of data

Use/ wastage of paper

Solution developed and proven

End-to-end paperless written examinations

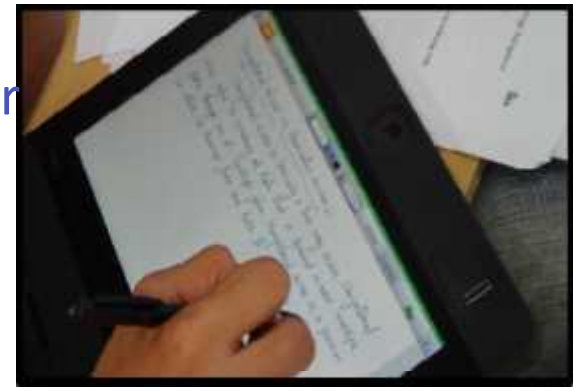
Students write on custom tablet close to paper

Cloud based modules –

Evaluation, administration easy

Huge efficiencies and added security

Saving of paper and energy

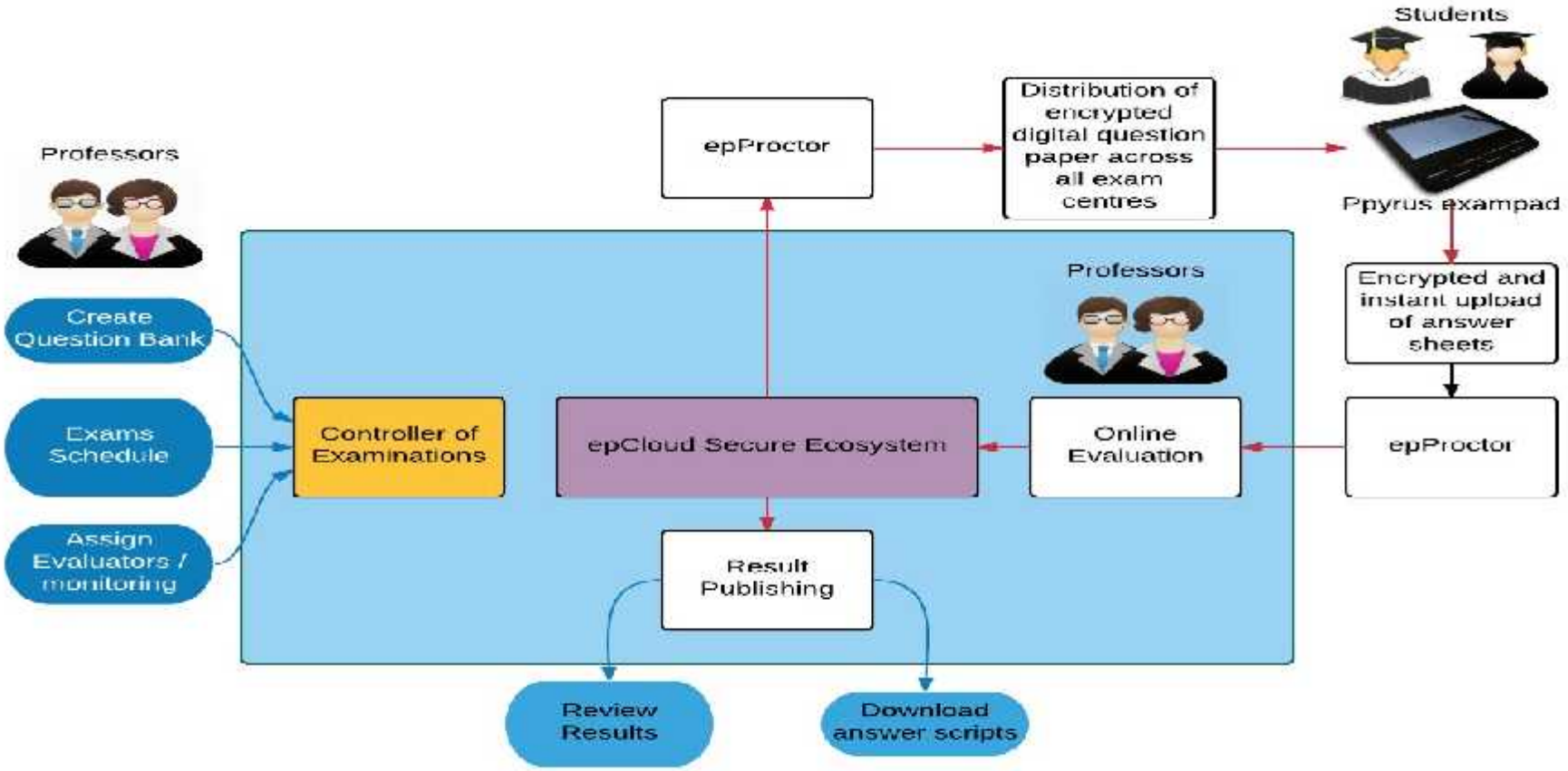


200,000 university exams conducted – 2 million pages

- Across 24 institutions in Tamil Nadu
- Excellent feedback



Paperless written examinations



- **Cuts exam cycle time up to 50%**
- **Fully secure**
- **Anywhere/anytime evaluation**
- **Complete digital audit trail**

Implementation Status

Tamil Nadu Agricultural University (TNAU)

Migrated to Digital Exams 3 years back

17 Colleges, 5000 students currently writing digital exams

Digital Exam Delivery Snapshots









Why TNAU switched over to paperless?



- **200,000+ exams done with zero error** for them over 3 years across multiple exam cycles and locations .
- **Excellent experience/feedback** of students, faculty and Controller of Examination offices.
- **Gains efficiency and obvious advantage -** Cuts total cycle time for exam by 50+%. Security cum Transparency.
- **Environmental impact** – becomes larger issue.
- **Forward thinking**, progressive institution which helps attract students.

Compared to paper the cost involved is justifiable considering the advantages

Digital initatives undertaken in the Directorate of Extension Education, TNAU, Coimbatore

a. Digital initiatives carried out at Educational media centre

- Around 2500 students intersecting various constituent / affiliated colleges of TNAU and other conventional colleges who visit the university every year are oriented towards the techniques of video production processes, editing procedures and Video camera handling skills though advanced techniques of Digital video production utilizing the Sony DV Camera and Apple softwares
- Editing techniques are being taught with the editing Softwares like Adobe premiere/Pinnacle/Avid Mojo/ and imported Softwares like caseblanca renome and apple series like macpr and Final cut pro
- Documentation of ruling/path breaking agrl technologies of about 1712 are being video shot, edited and movie making done by around 100s of students representing the UG/PG/Phd levels of TNAU and uploaded in the computer cloud space generated by the State Government along with Amazon group
- Crash course on media like media advertising ,Film making,Graphic Designing, Animation Techniques are being offered enrolling 10s of 100s of students to learn media skills and eligible to get employment at private media firms

Digital initiatives undertaken at e-Extension centre

- Establishment of Agri tech portal, a digital initiative started from 2008, created wide range of opportunities to the students community, to gain first hand information on the recent advancements in ICT Products like Agritech Portal, Expert system, mobile app application in Expert System ,e-Velanmai, and Video conferencing
- Nearly 22,550 students across Tamil Nadu got exposed on these products who visit the university on educational tours every now and then
- The portal activities are accessed with the Google play store in Public Domain and M-how Store in the Government of India Domain
- The utilitarian benefits accrued by the students include assignment preparation, technical details in the form of texts/videos/photos and audios, updated and renewed periodically depending on the innovations developed in the scientific arena

National convention on Digital Initiatives for Higher Education

TNAU introduced Online Examination

Tamil Nadu Agricultural University (TNAU) is going green by eliminating the usage of papers for writing theory examinations and introducing a new paperless examination system. After shifting from the conventional method of teaching to e-learning, Tamil Nadu Agricultural University (TNAU) and its constituent colleges have introduced online examinations for first year students pursuing undergraduate programmes. The university switched over to the e-learning from the academic year 2003, it was made compulsory for first-year students to procure personal laptops from 2007. They had been using it in classrooms for their study purpose and online examinations.

Final examinations would not involve internal evaluation. The question paper will be prepared by teachers from other universities. They will be loaded on the website and be accessed by the students at the appointed time in the examination hall. Once the examination is over, the file is closed and uploaded to a common server.

Evaluators from different parts of the State as well as from other agricultural universities will be able to evaluate the answer sheets of the students on their personal computers. The response from the students has made the university authorities happy with their decision to go online. They agree that they were initially apprehensive as to how the students would feel about taking the examination online, but now after the successful attempt, both the parties concerned are happy about their achievement.

Paperless Exam (Exam pad) system

The paperless exam system (Exam Pad) is first-of-its-kind, innovative, eco-friendly technological solution has been launched during 2013-14 which aimed at eliminating the necessity of paper in the entire process of conducting University Examinations. The Exampad device uses a special texture which gives similar experience of writing on paper, the entire process of conducting an exam, right from authoring questions, to exam scheduling, delivering the exams, evaluating the responses, and declaring results, can be accomplished digitally, thereby eliminating the necessity of paper in the entire process. This system has been introduced initially with four affiliated during 2013 and spanned to 17 constituent colleges during

2015-16, Nearly 200,000 exams done **with zero error** for them over 3 years across multiple exam cycles and locations.

Access to the ExamPad Writer device is controlled by biometric fingerprint authentication with a built-in camera which verifies with student database that ensures reliability of the student's identity and attendance for exams.

After completion of examination, the answer scripts are stored digitally and evaluated online on the Cloud. With the Cloud based evaluation, the evaluator can evaluate the answer script from anywhere with internet connectivity. This system performs more transparent, extremely efficient and faster process of evaluation and releasing of scores to the students.

Impact of the system

In this new system, the student can write descriptive exams as they do on paper. They can also use different pen colors, draw, erase and highlight specific areas of the answer page as they do on paper. Due to the exampad system, it is estimated that, in India alone, we can save over 4 lakh trees per year, by migrating the Internal and Semester Exams of all Indian Universities, from paper-pen mode to digital mode, using ExamPad Services.

This system ensures zero malpractices during evaluation of the answer scripts. The evaluated answer script can also be published to the students online for review and feedback on correctness of the evaluation.

This system has the following special features.

- Real time updates on examination status of each student including fingerprint authentication, exam start, exam end is available to invigilator.
- Professors can create questions and evaluate answer scripts from anywhere with access to desktop and internet. No more exchange of papers or emails or word documents.
- Improving the students' personality with confidence in facing the competitive examinations of digital in nature which are going to be the common feature in the coming years.
- Leading to state of win-win strategy between the students and teachers
- No more hassle as encountered in the process of handling of manual answer scripts, loss of answer scripts, misfortune of leakage of question paper and so on leading to healthy examination system.

SavitriBai Phule University , Pune (SPUU)





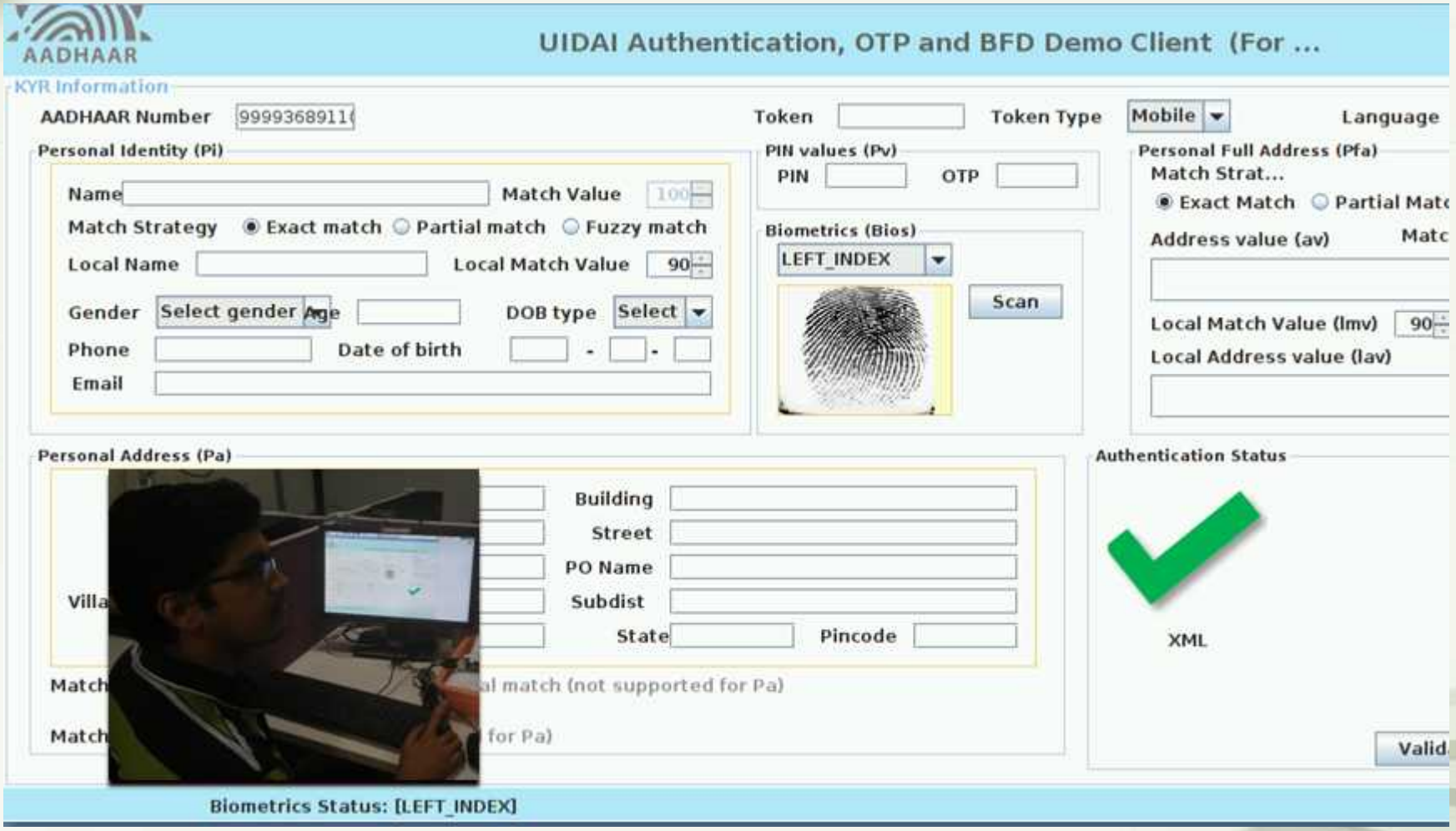
Center for Intelligent Systems (CIS) + Liveness based Anti-spoofing measures for secured and interoperable Biometric System

Dr. Aditya Abhyankar (PI)
Dr. Suresh Gosavi (co-PI)

Support Staff:
Dr. Madhushree Bute, Kothari Fellow, DoT

SavitriBai Phule Pune University, Pune (SPPU)

AADHAR based App



AADHAR based App

AADHAAR

UIDAI Authentication, OTP and BFD Demo Client (For API 1.6)

KYR Information

AADHAAR Number 999936891104 Token Token Type Mobile Language Select

Personal Identity (Pi)

Name Match Value 100

Match Strategy Exact match Partial match Fuzzy match

Local Name Local Match Value 90

Gender Select gender Age DOB type Select

Phone Date of birth - -

Email

PIN values (Pv)

PIN OTP

Biometrics (Bios)

LEFT_INDEX

Scan

Personal Full Address (Pfa)

Match Strategy (ms)

Exact Match Partial Match Fuzzy match

Address value (av) Match Value (mv) 100

Local Match Value (lmv) 90

Local Address value (lav)

Personal Address (Pa)

Villa

Building

Street

PO Name

Subdist

State Pincode

Match

Match

(supported for Pa)

Authentication Status

XML

XML Error code: 300 (Biometric mismatch)

Validate Response

Biometrics Status: [LEFT_INDEX]

Spoofing



Spoof making



Spoof selection



Spoofed Aadhar System



Embedded Solution

Adapter Based Solution





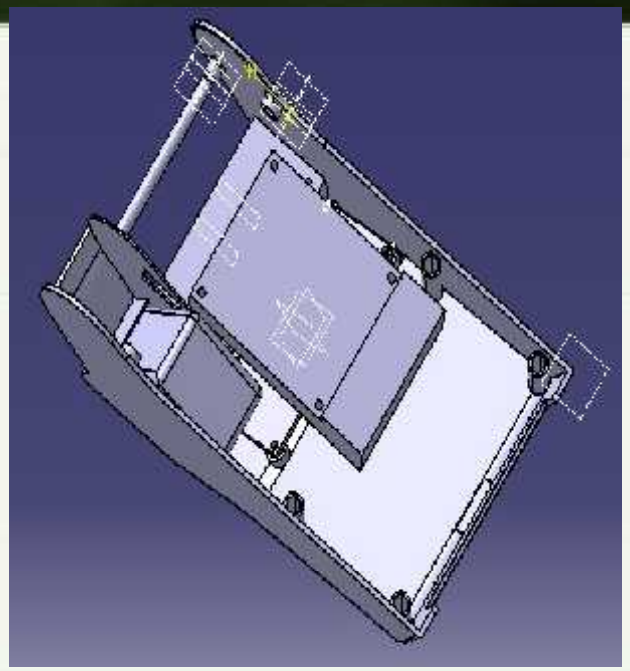


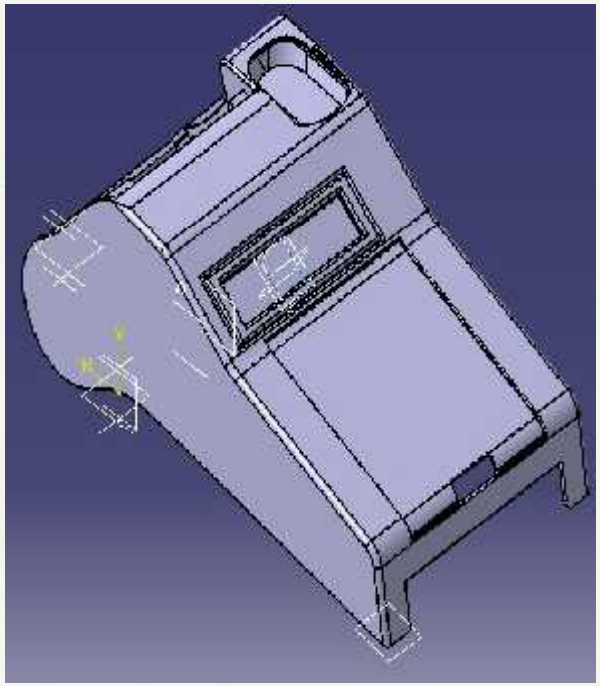


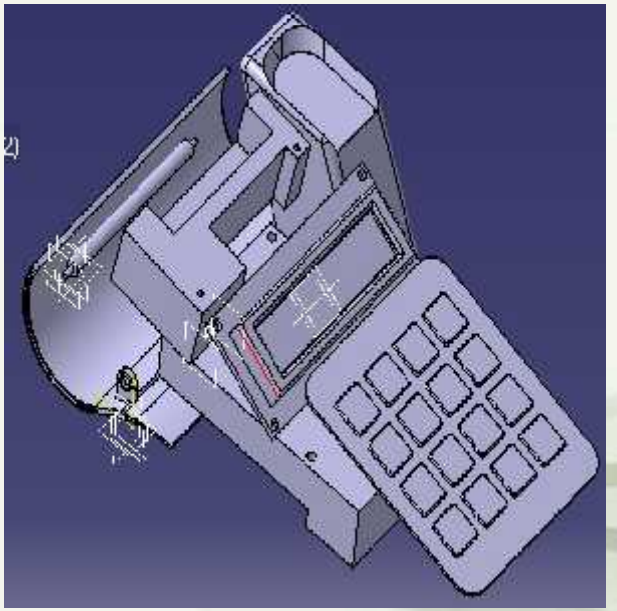
Battery Based Solutions



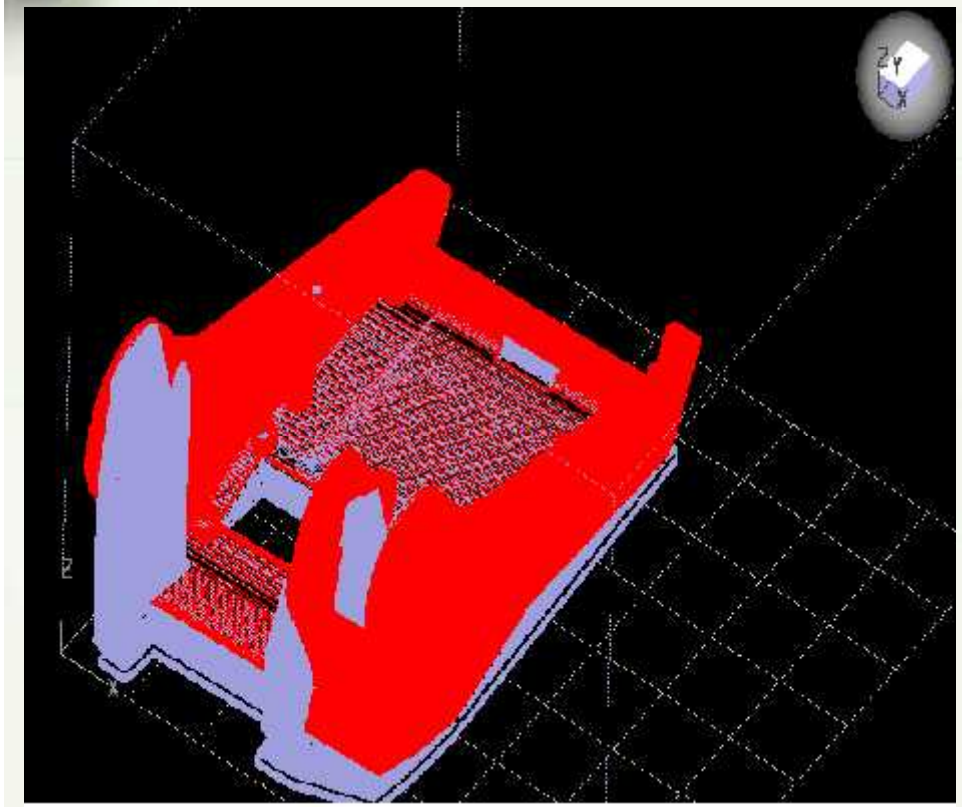
Model Design





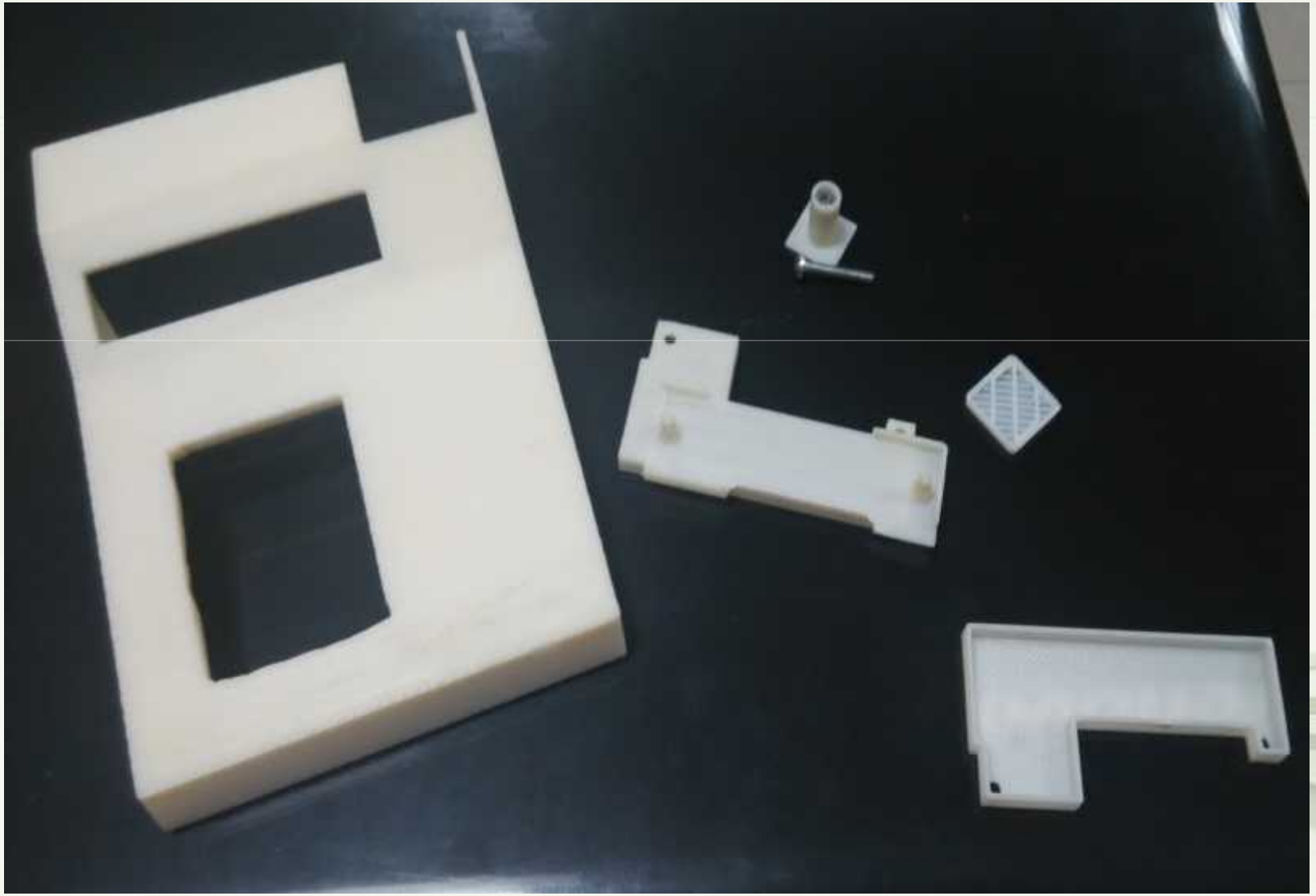


3-D Printing





Printed Model Parts



RUSA Center Act









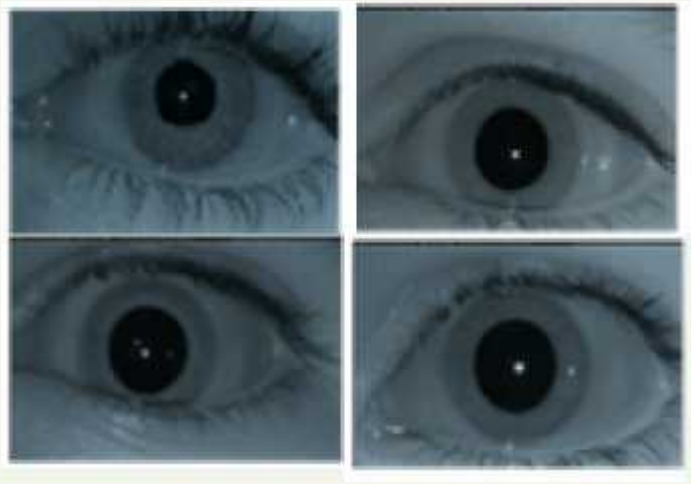




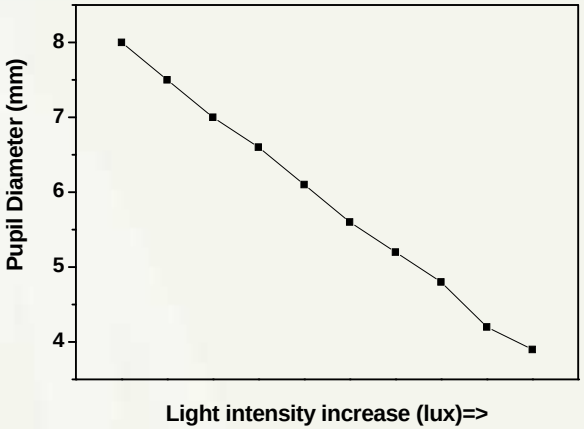
Information extraction for Iris and pupil geometries from simple experimentation



(a) IR LED bank to stimulate iris and also normal light with increasing intensity



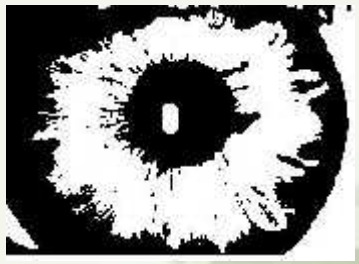
(b) Image capturing at different stimulus and store in database



(c) Pupil contraction with increase in illuminating light intensity



(d) Direct use of iris color print out and the dynamic pupil part will be attach to it

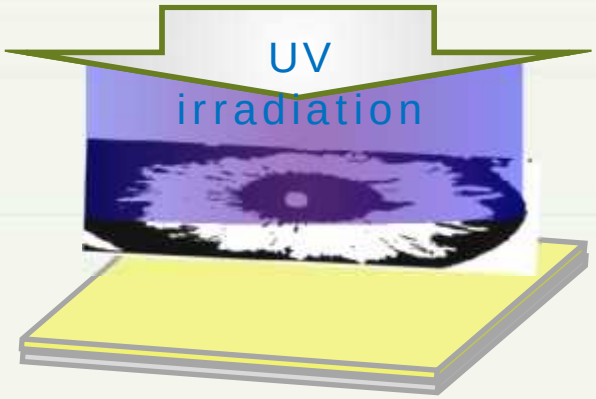


(e) Conversion of images in to mask for lithography, to be printed on transparency

Fabrication of artificial Iris and dynamic pupil using lithography in Cleanroom



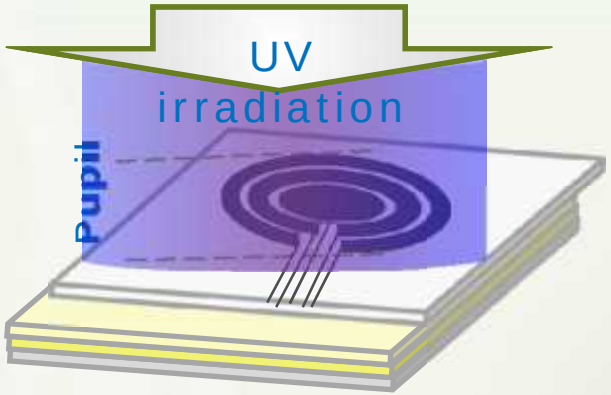
Clean Room Facility for LITHOGRAPHY



(a) UV lithography for iris fabrication



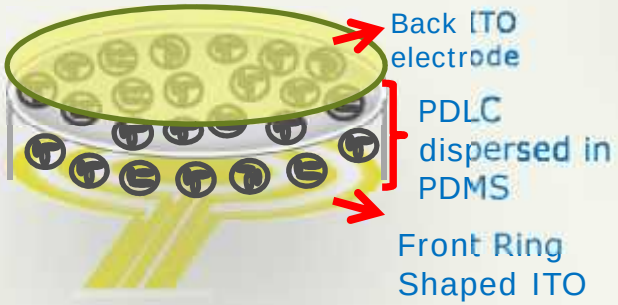
(b) Development after UV lithography



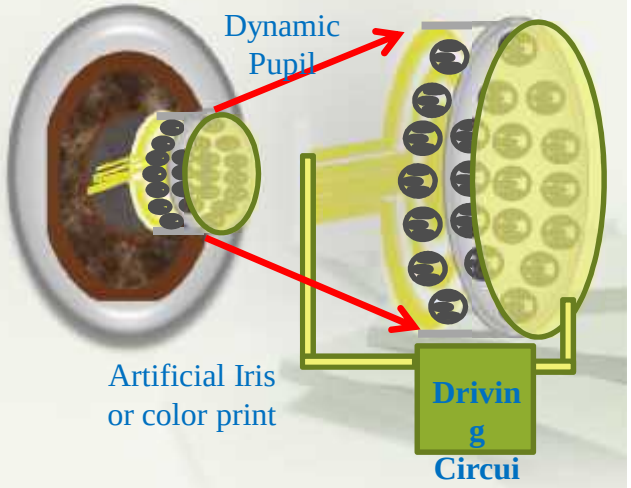
(c) UV lithography on ITO-PET for pupil fabrication



(d) Image of pupil after fabrication

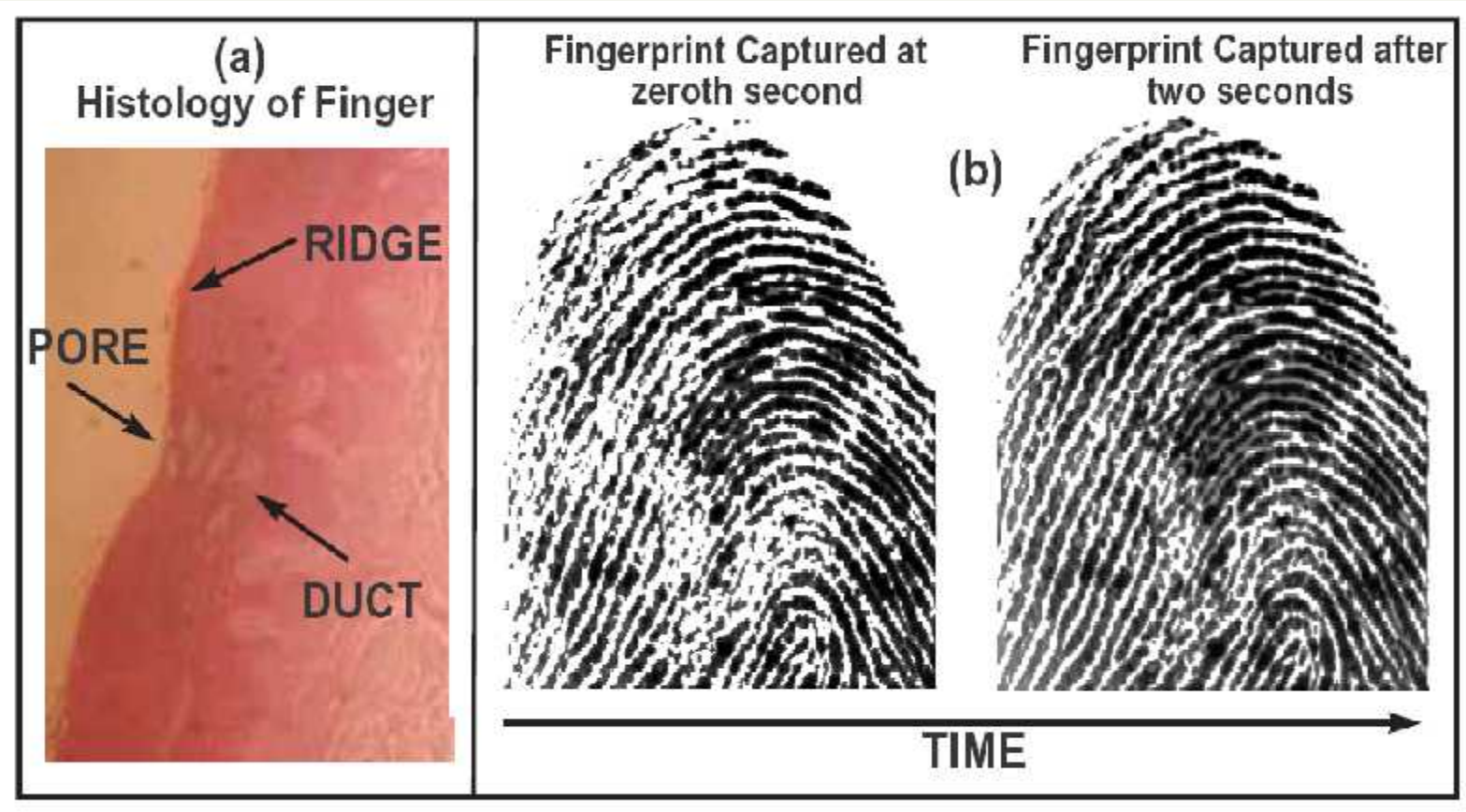


(e) Assembly of polymer dispersed liquid crystal for dynamic pupil functionality

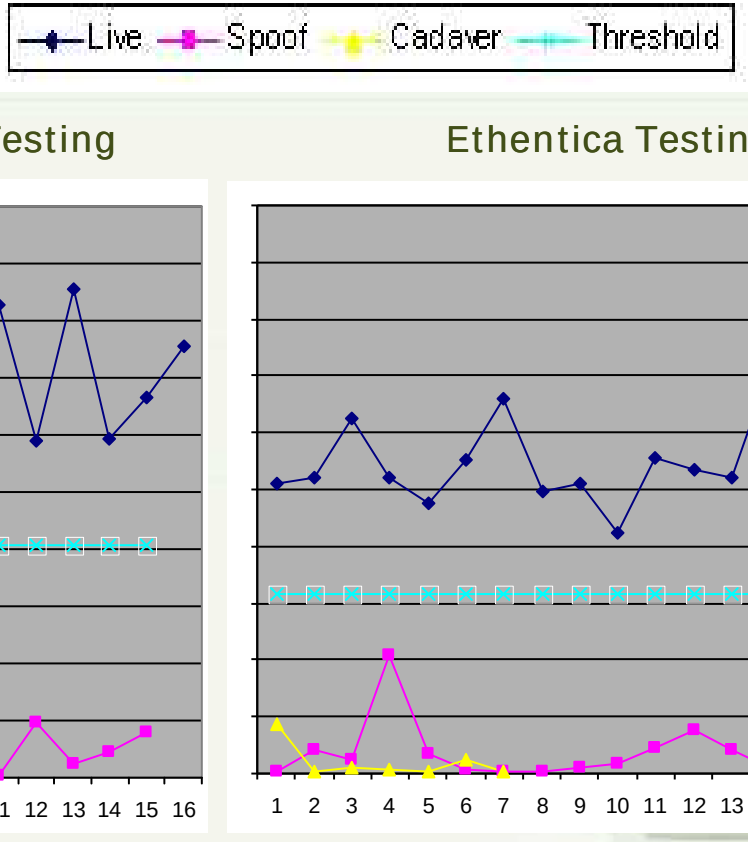


(f) Assembly for artificial eye

Liveness Detection

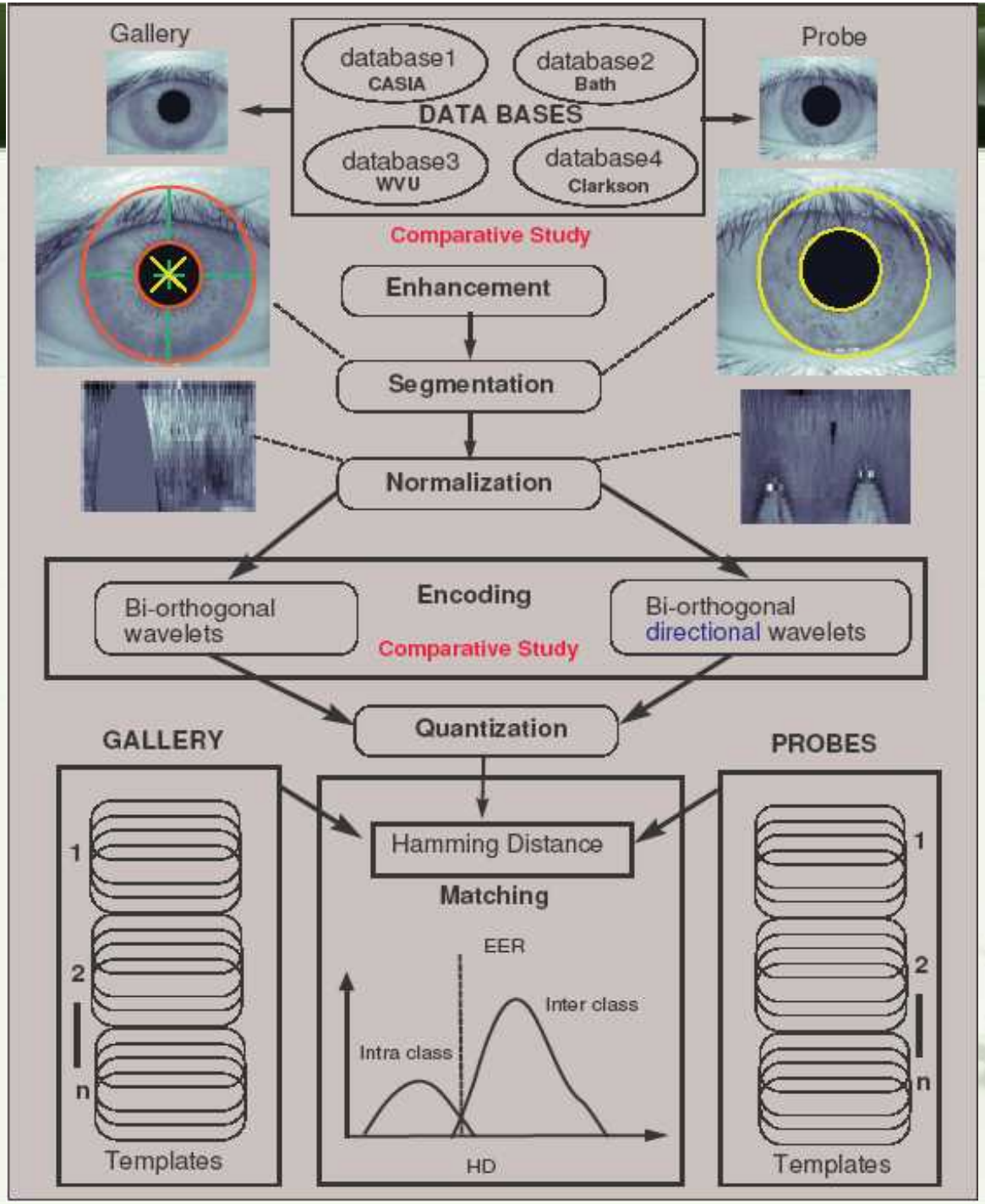


Results for the Testing Data Set

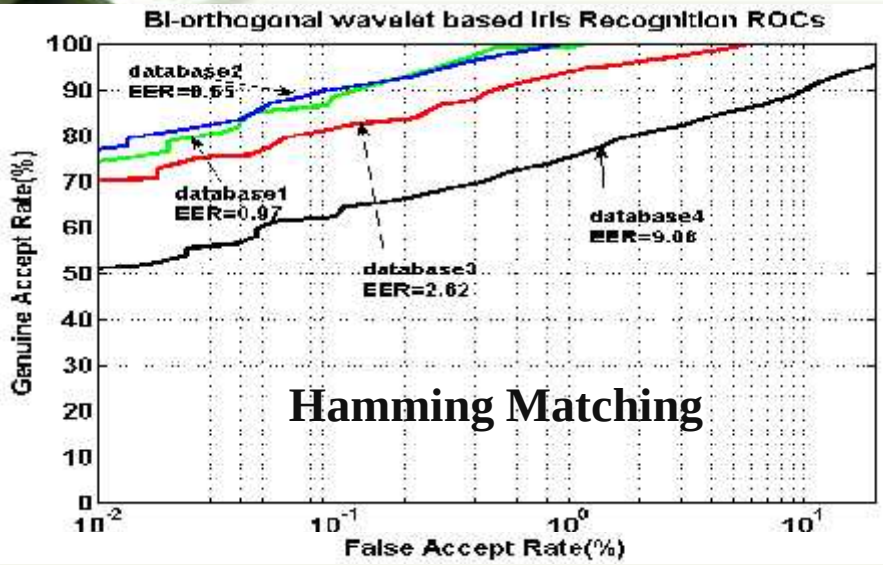


- Selected thresholds achieve 100% classification for all devices.

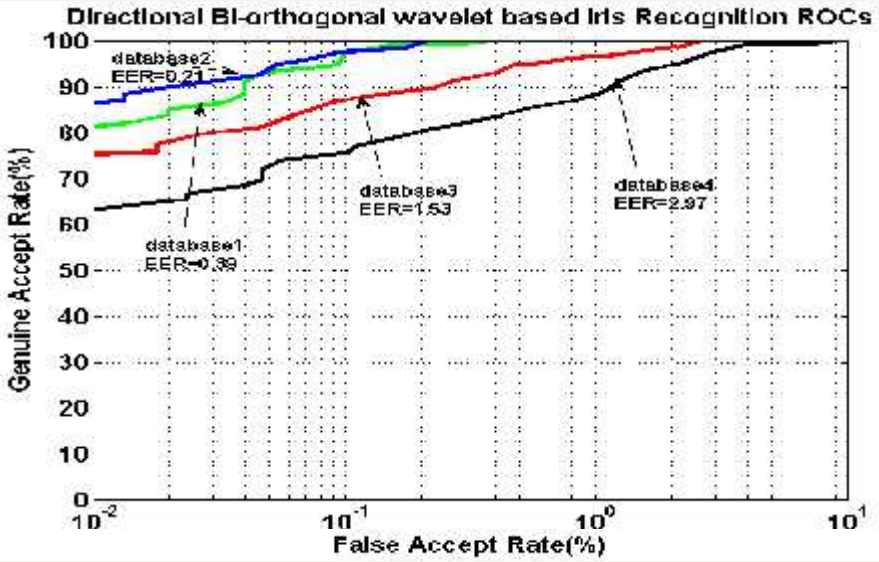
System Set up

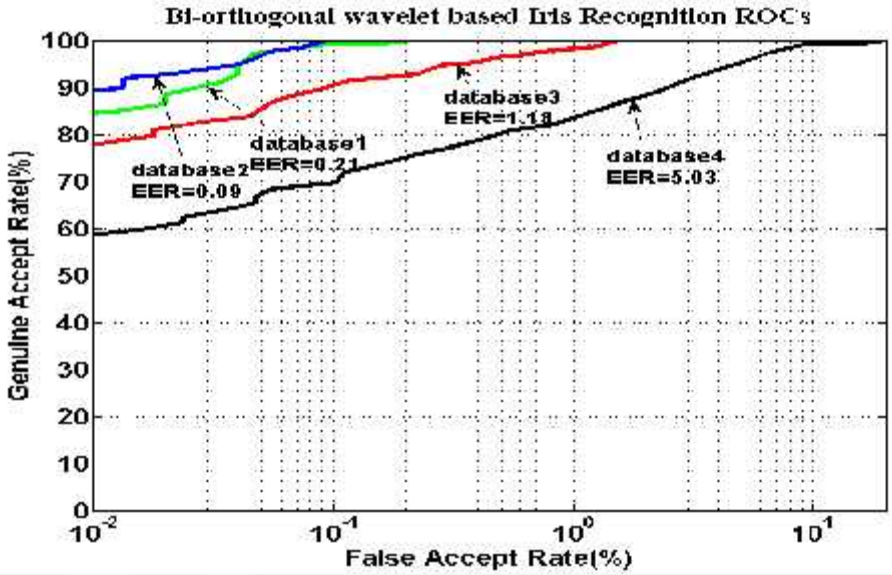


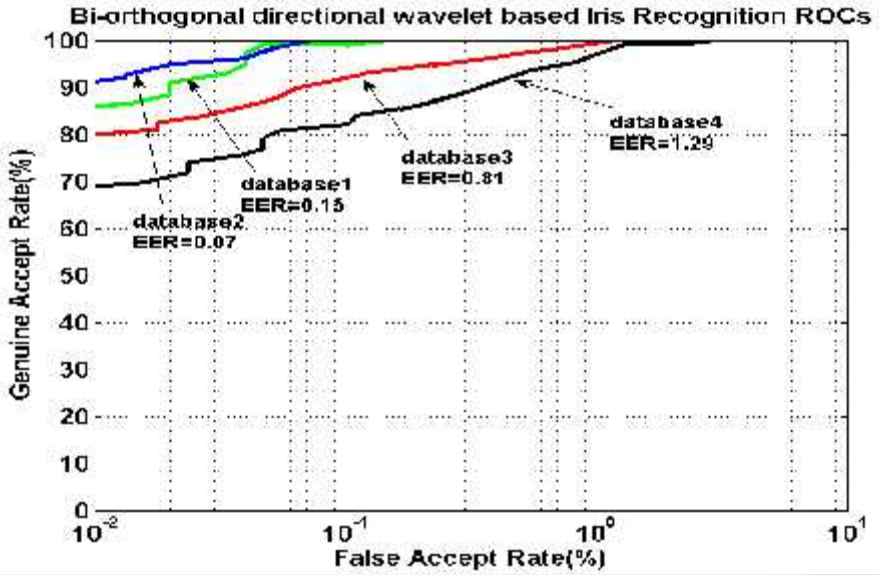
Comparative Results



Hamming Matching

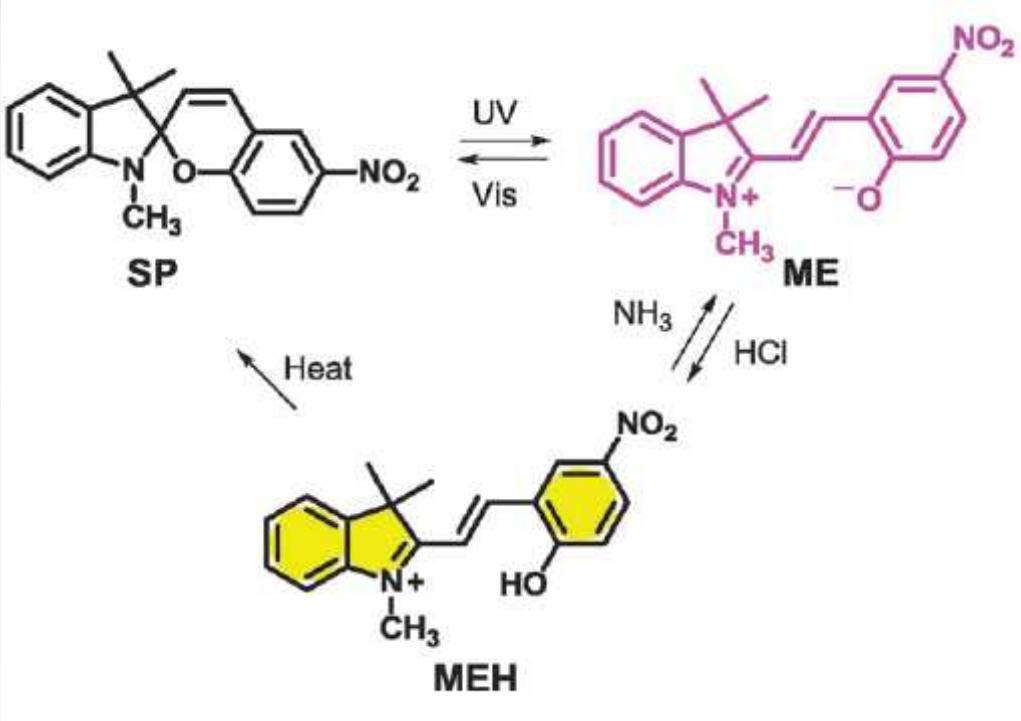


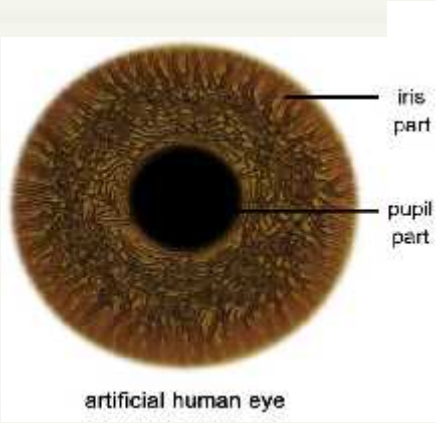


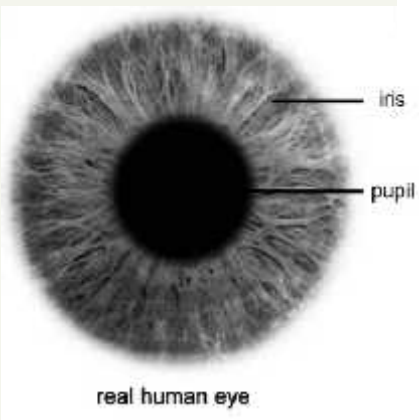


AND-NOT Matching

Photo-induced three distinct states of Spiropyran derivative

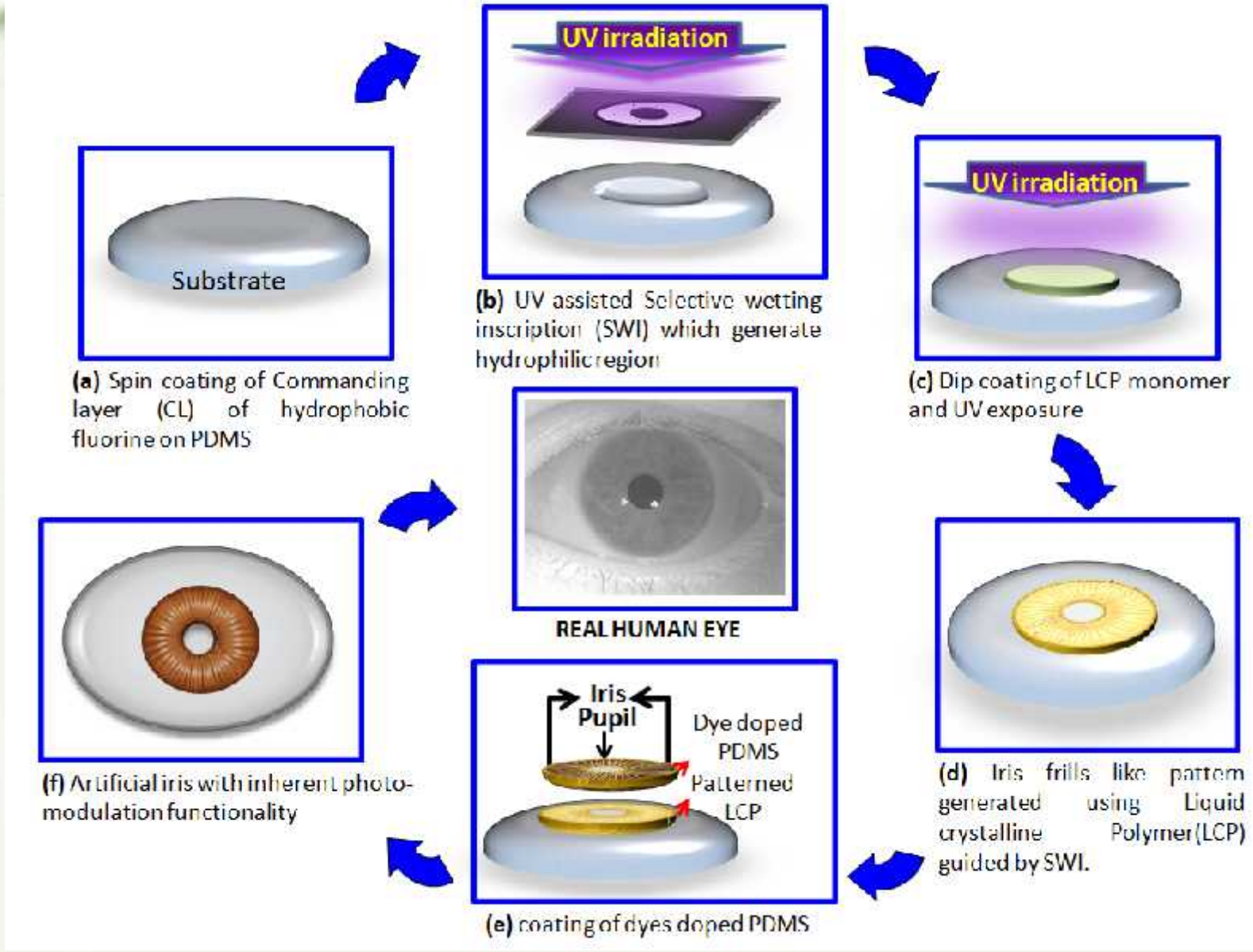




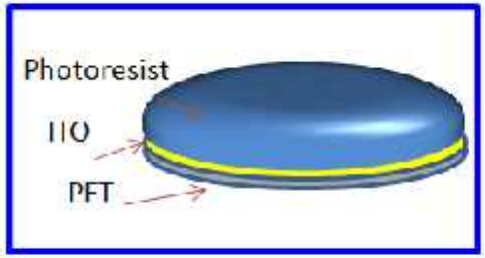


Spiro form => Merocyanine => Protonated Merocyanine

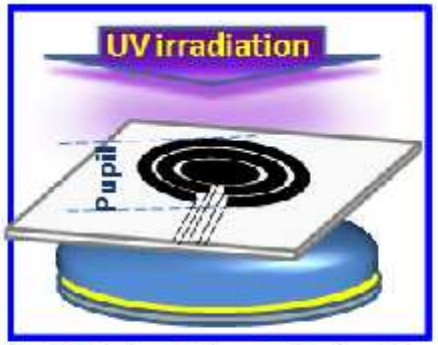
Iris Spoof Generation



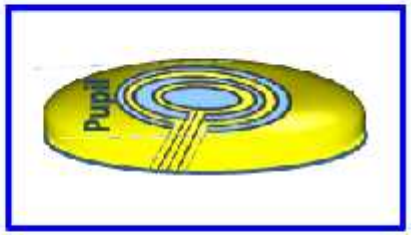
Iris Spoof Generation



(a) Spin coating of UV photoreslst on ITO/PET substrate



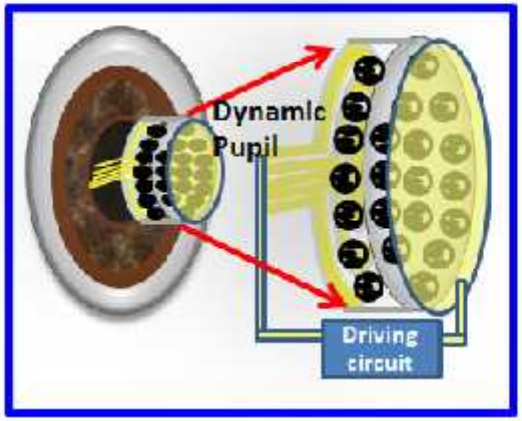
(b) UV photolithography for Iris pattern generation



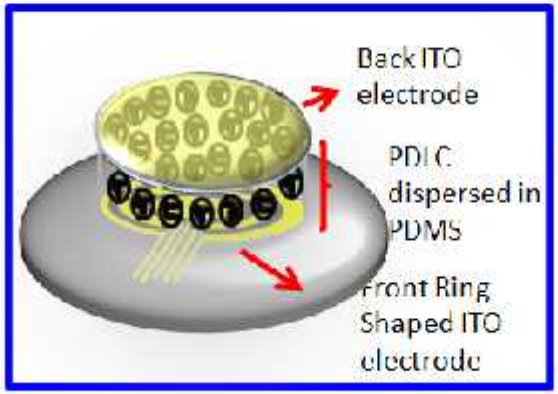
(c) Resist development



(d) ITO etching using diluted HCl acid and removal of photoresist

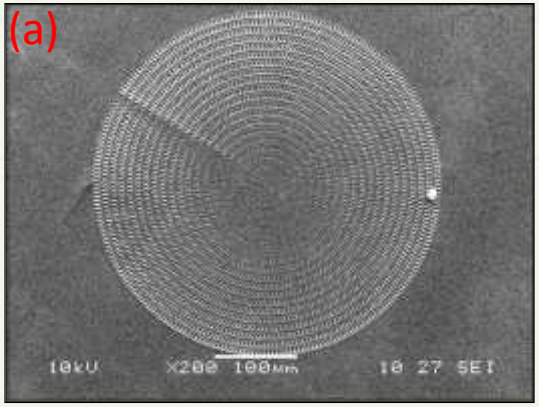


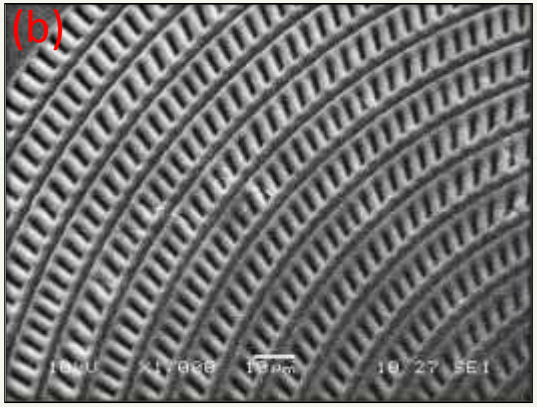
(f) Assembly of artificial eye with dynamic functionality

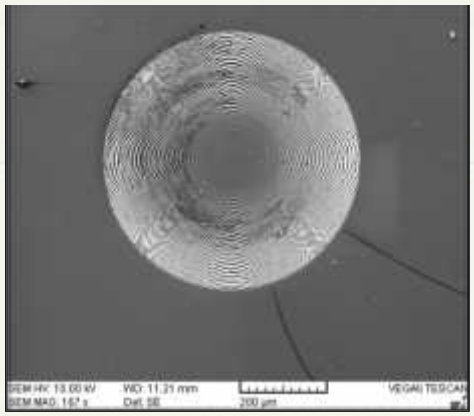


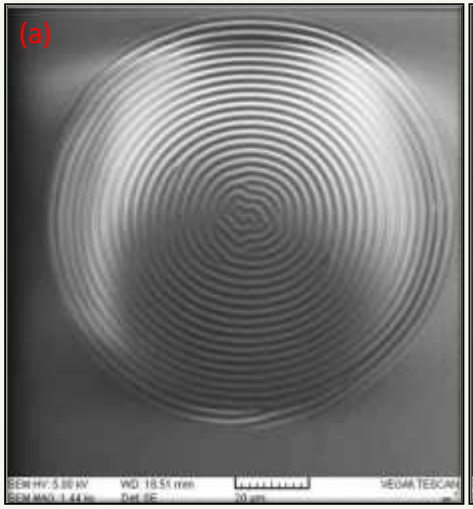
(e) Assembly for dynamic pupil

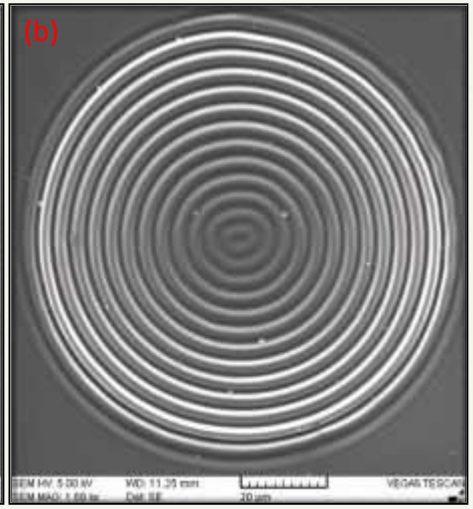
Dynamic Pupil : Our Fabrication approach









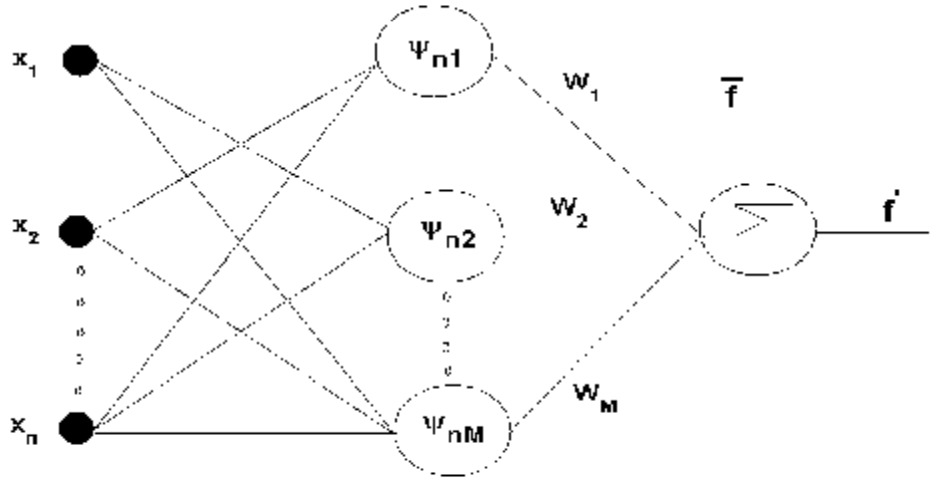




Our capabilities

Iris recognition using BWN

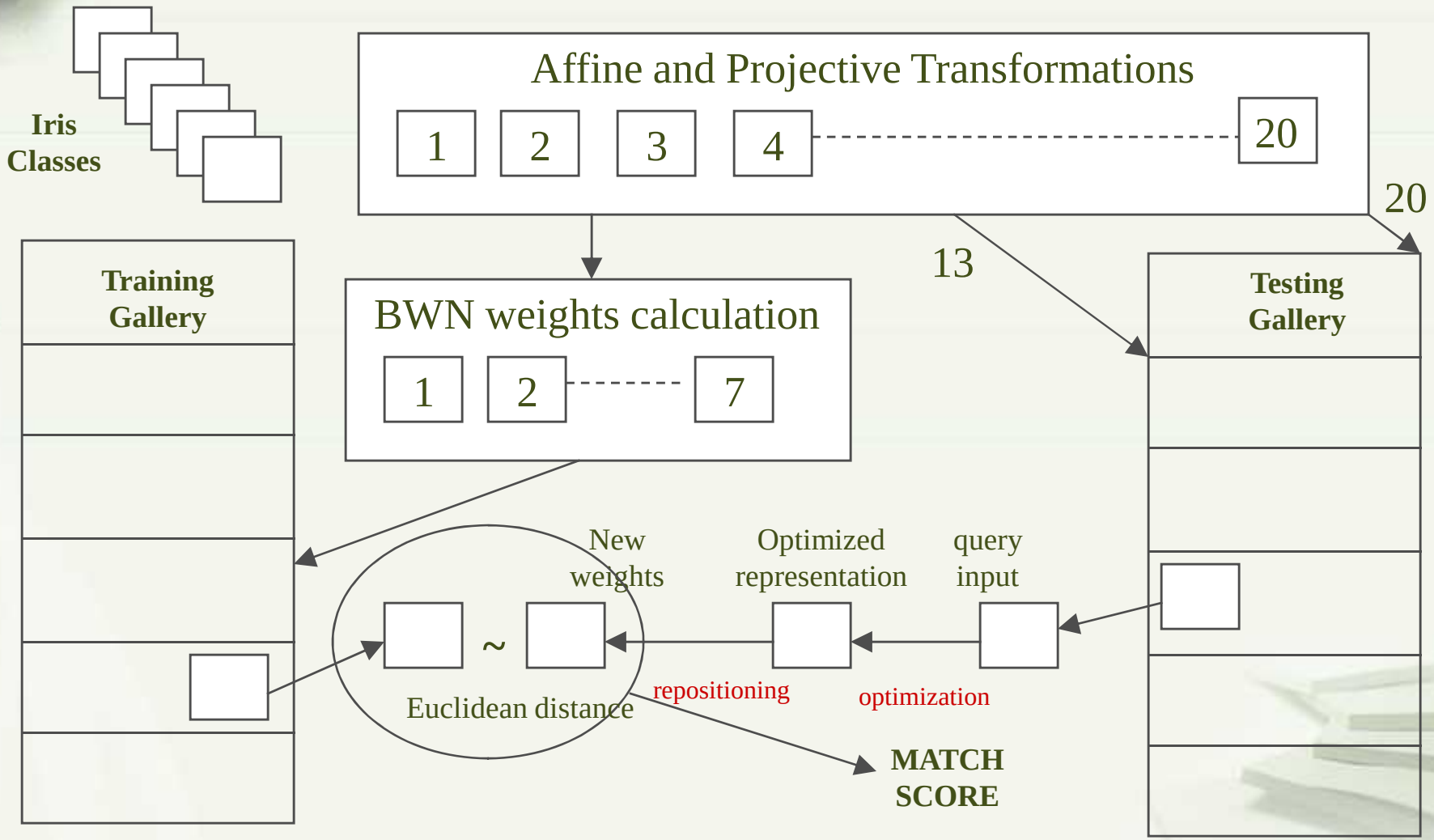
- The basic idea behind matching using BWNs
  - BWN(y,w) optimized for a particular class of an iris
  - BWN(y,w) specific for that particular class only
- Any other class is not well represented by the same BWN
- Each representation gets uniquely trained



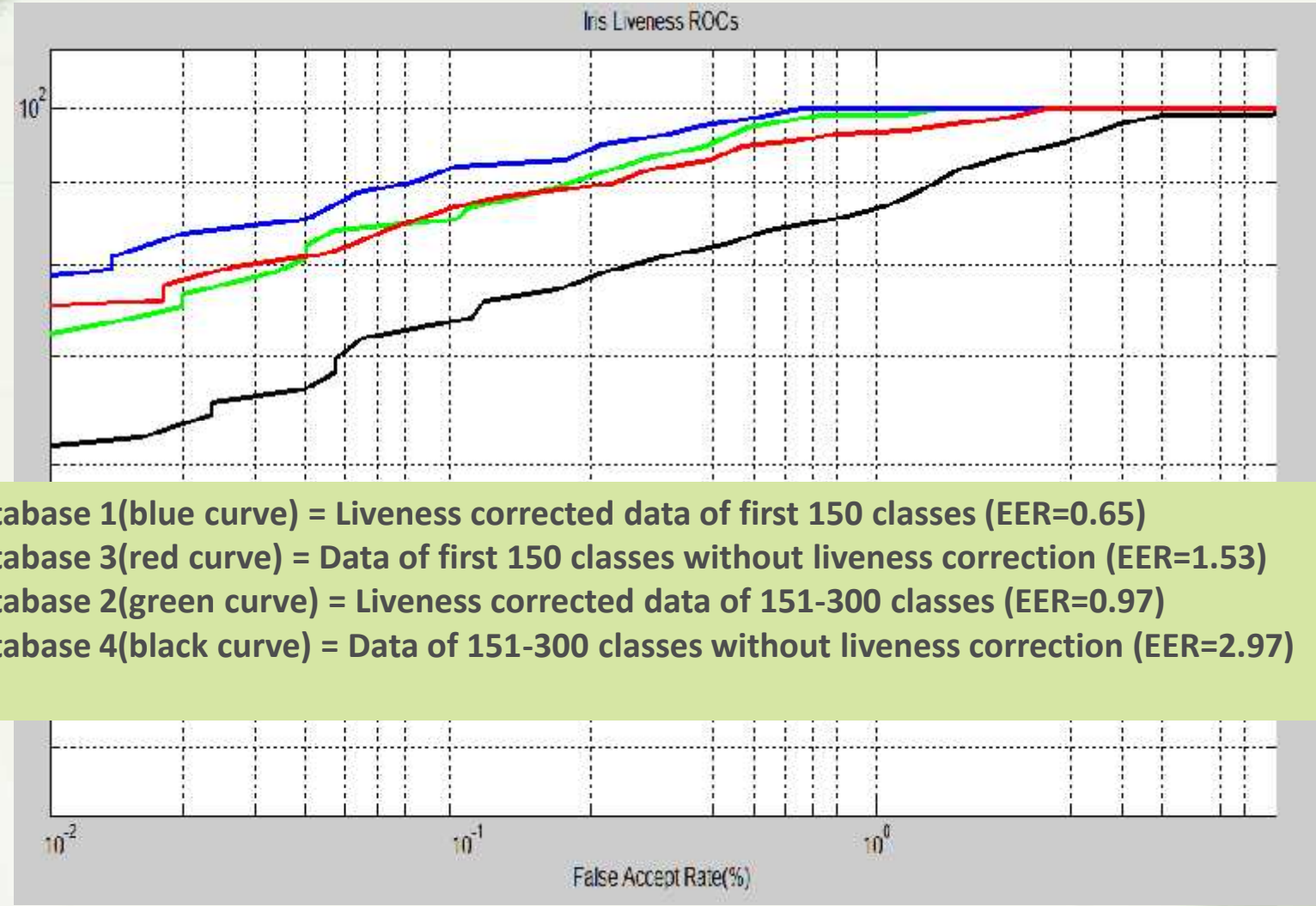
$$f'(\vec{x}) = \sum_{i=1}^{M} \acute{} \pm (\vec{a_i}^{T} \vec{x} + b_i)$$

$$f'(x) = \sum_{i=1}^{M} w_i \cdot \vec{n_i}(x) + \overline{f}$$

System Overview

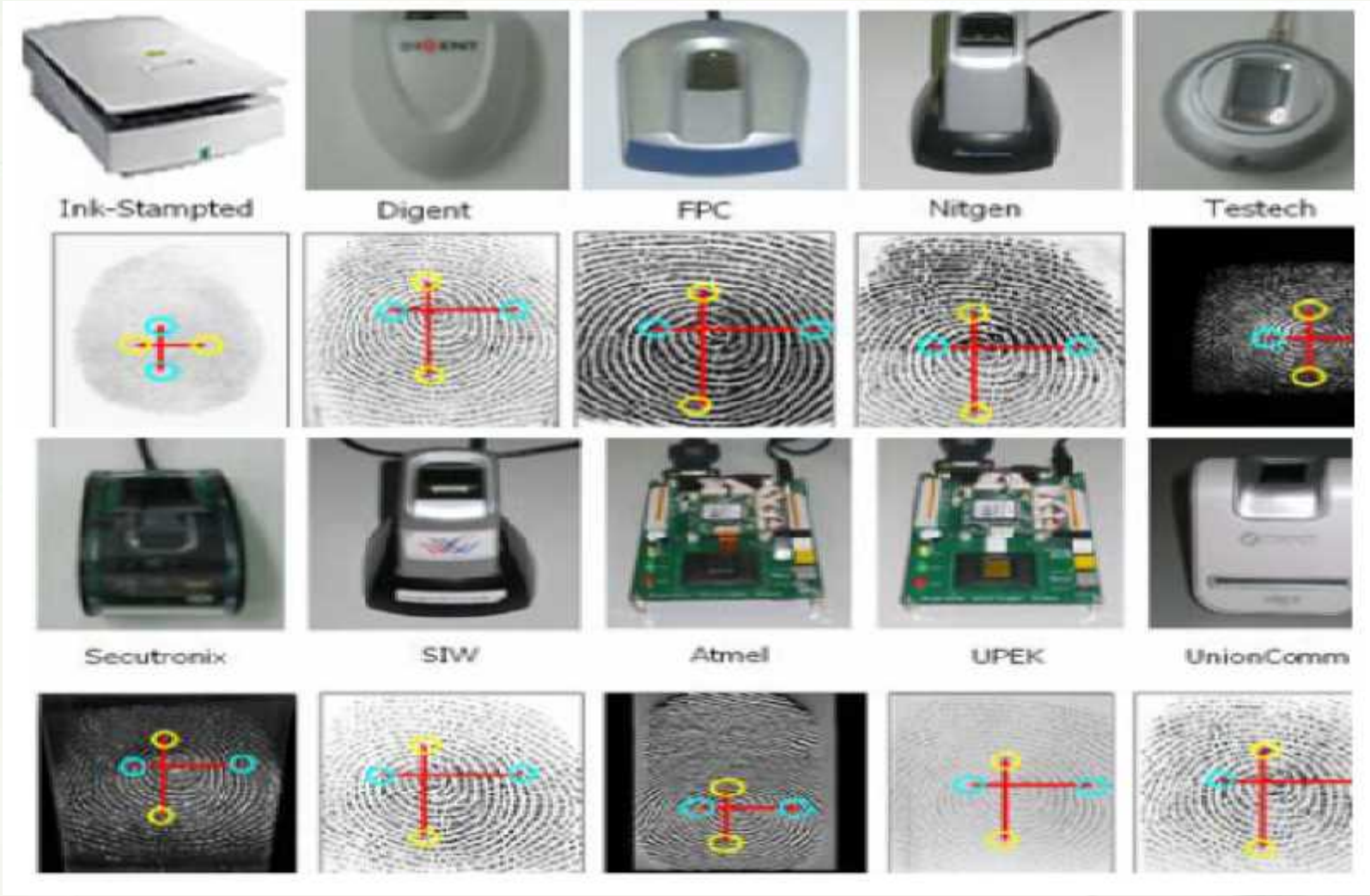


Experimental Results



Database 1(blue curve) = Liveness corrected data of first 150 classes (EER=0.65)
Database 3(red curve) = Data of first 150 classes without liveness correction (EER=1.53)
Database 2(green curve) = Liveness corrected data of 151-300 classes (EER=0.97)
Database 4(black curve) = Data of 151-300 classes without liveness correction (EER=2.97)

Sensors – Sources of Interop



Modeling iris information

$$s\tilde{p} = A[Rt]\tilde{P} \quad \text{with} \quad A = \begin{bmatrix} \alpha & c & u_0 \\ 0 & \beta & v_0 \\ 0 & 0 & 1 \end{bmatrix}$$

$$s\begin{bmatrix} u \\ v \\ 1 \end{bmatrix} = A[r_1 r_2 r_3 t]\begin{bmatrix} X \\ Y \\ 0 \\ 1 \end{bmatrix} = A[r_1 r_2 t]\begin{bmatrix} X \\ Y \\ 1 \end{bmatrix}$$

The iris image p is related to its model point P by the principles of homography H,

$$s\tilde{p} = H\tilde{P}$$

Given an iris model plane,

$$[h_1 h_2 h_3] = \lambda A[r_1 r_2 t]$$

It is to be noted that λ is a scalar and r_1 and r_2 are orthonormal. Thus from (*Zhang 1999*)

$$h_1^T A^{-T} A^{-1} h_2 = 0$$

$$h_1^T A^{-T} A^{-1} h_1 = h_2^T A^{-T} A^{-1} h_2 \text{ ------}$$

Model (cont...)

$$\breve{y} = y + y[\theta_1(x^2 + y^2) + \theta_2(x^2 + y^2)^2]$$

Where, θ_1 and θ_2 are the angular deformation coefficients. These parameters are estimated estimating other parameters.

$$\begin{bmatrix} (u-u_0)(x^2+y^2) & (u-u_0)(x^2+y^2)^2 \\ (u-u_0)(x^2+y^2) & (u-u_0)(x^2+y^2)^2 \end{bmatrix} \begin{bmatrix} \theta_1 \\ \theta_2 \end{bmatrix} = \begin{bmatrix} \breve{u}-u \\ \breve{v}-v \end{bmatrix}$$

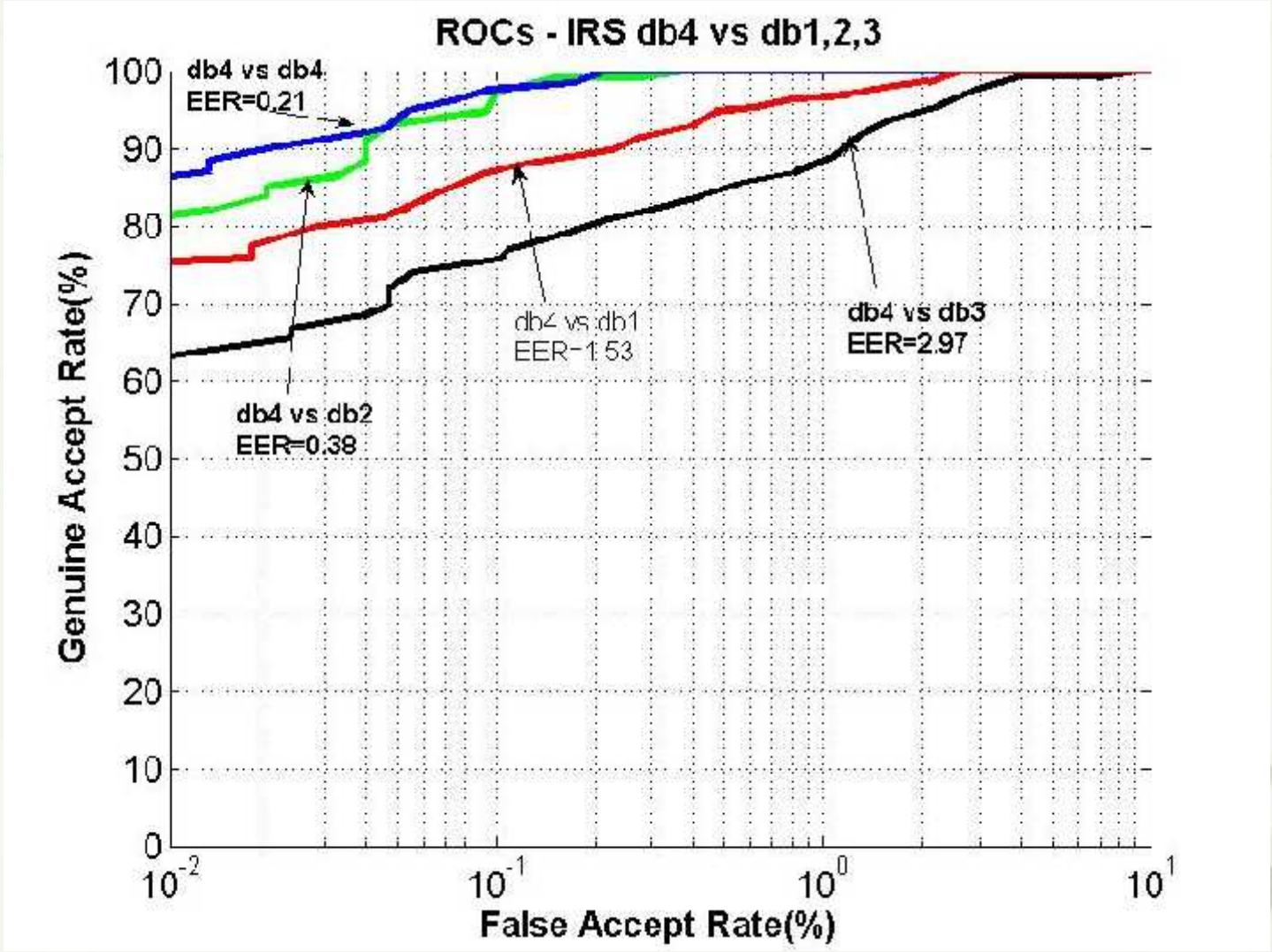
The linear least square solution is given by

$$\Theta = (D^T D)^{-1} D^T d$$

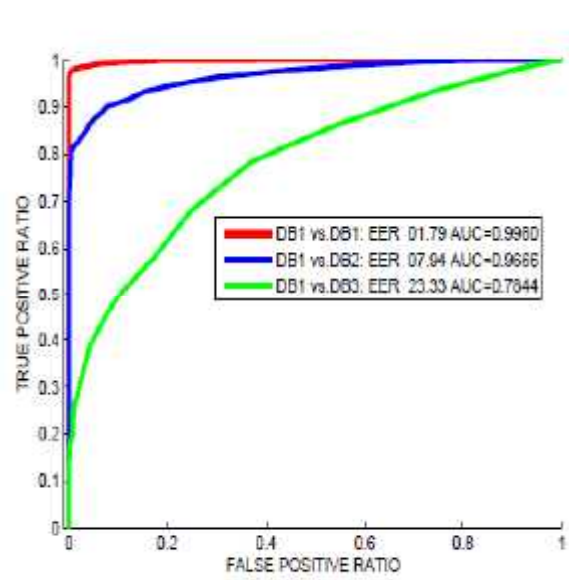
The complete optimization solution is obtained by minimizing following function,

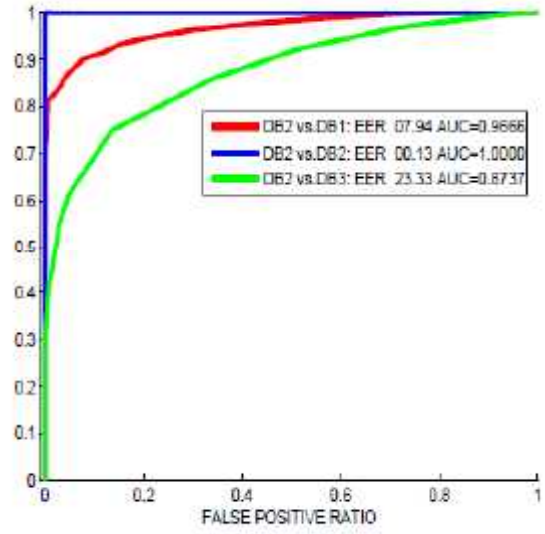
$$\sum_{i=1}^{n=3} \sum_{j=1}^{m} \| m_{ij} - \hat{m}(A, \theta_1, \theta_2, R_i, t_i, M_j) \|^2$$

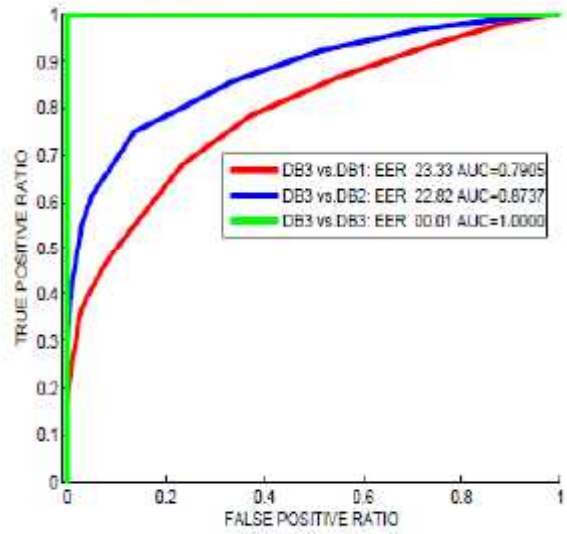
Results


ROCs - IRS db4 vs db1,2,3
db4 vs db4
EER=0.21
db4 vs db2
EER=0.38
db4 vs db1
EER=1.53
db4 vs db3
EER=2.97
Genuine Accept Rate(%)
False Accept Rate(%)
100
90
80
70
60
50
40
30
20
10
0
10^-2
10^-1
10^0
10^1

Results


TRUE POSITIVE RATIO
FALSE POSITIVE RATIO
DB1 vs.DB1: EER 01.79 AUC=0.9980
DB1 vs.DB2: EER 07.94 AUC=0.9666
DB1 vs.DB3: EER 23.33 AUC=0.7844


FALSE POSITIVE RATIO
DB2 vs.DB1: EER 07.94 AUC=0.9666
DB2 vs.DB2: EER 00.13 AUC=1.0000
DB2 vs.DB3: EER 23.33 AUC=0.8737


TRUE POSITIVE RATIO
FALSE POSITIVE RATIO
DB3 vs.DB1: EER 23.33 AUC=0.7905
DB3 vs.DB2: EER 22.82 AUC=0.8737
DB3 vs.DB3: EER 00.01 AUC=1.0000

microATM general description

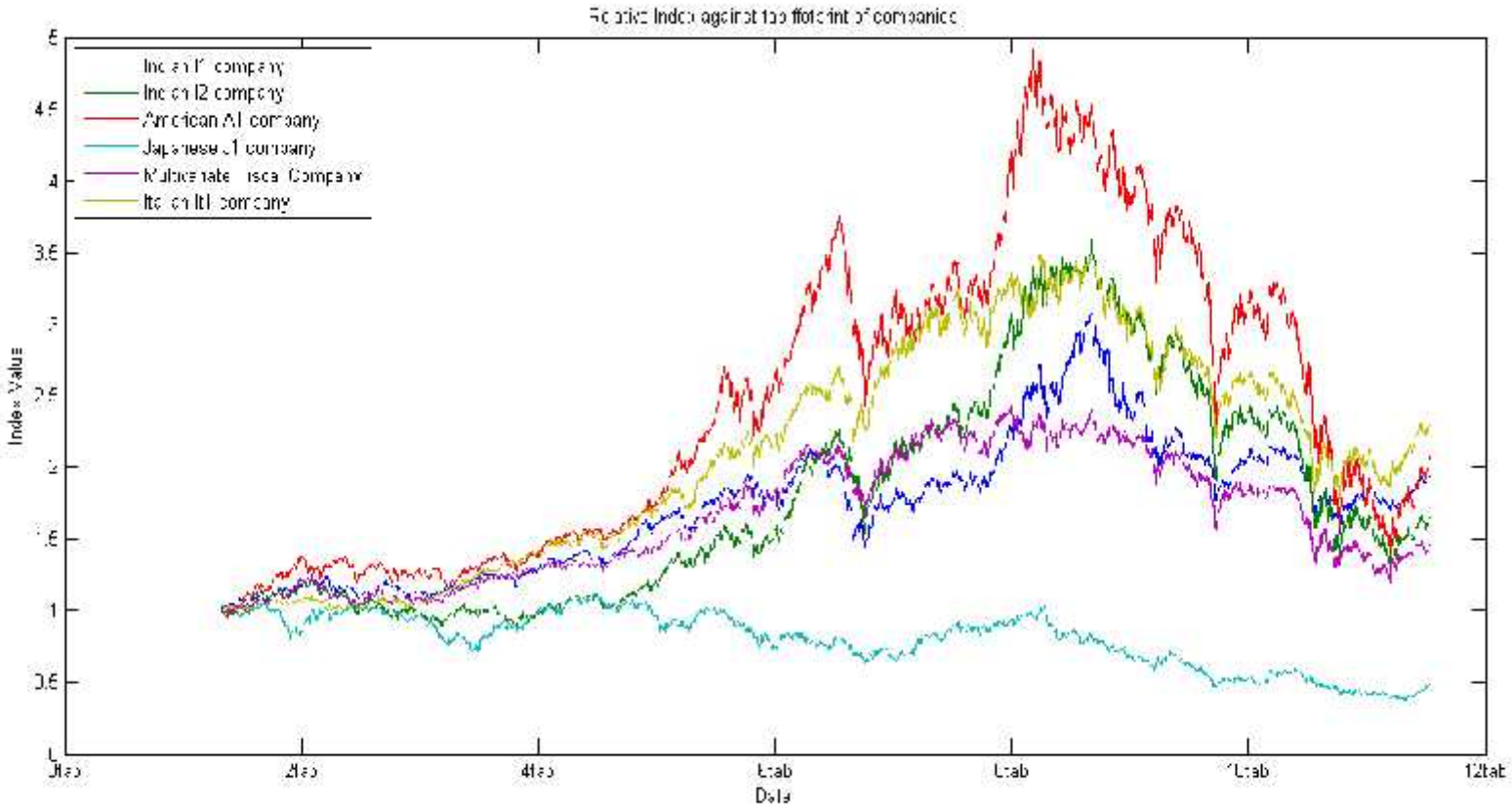
- The MicroATM will provide the following services to the customers of XYZ Bank :
  - 1. Ability to swipe a credit/debit card embedded with AADHAR, along with biometrics.
  - 2. Ability to use an AADHAR smart card, along with biometrics.
  - 3. Ability to withdraw/deposit/transfer funds and also allow balance inquiries.
  - 4. Ability to authenticate using either fingerprint recognition or iris recognition.

Business Need

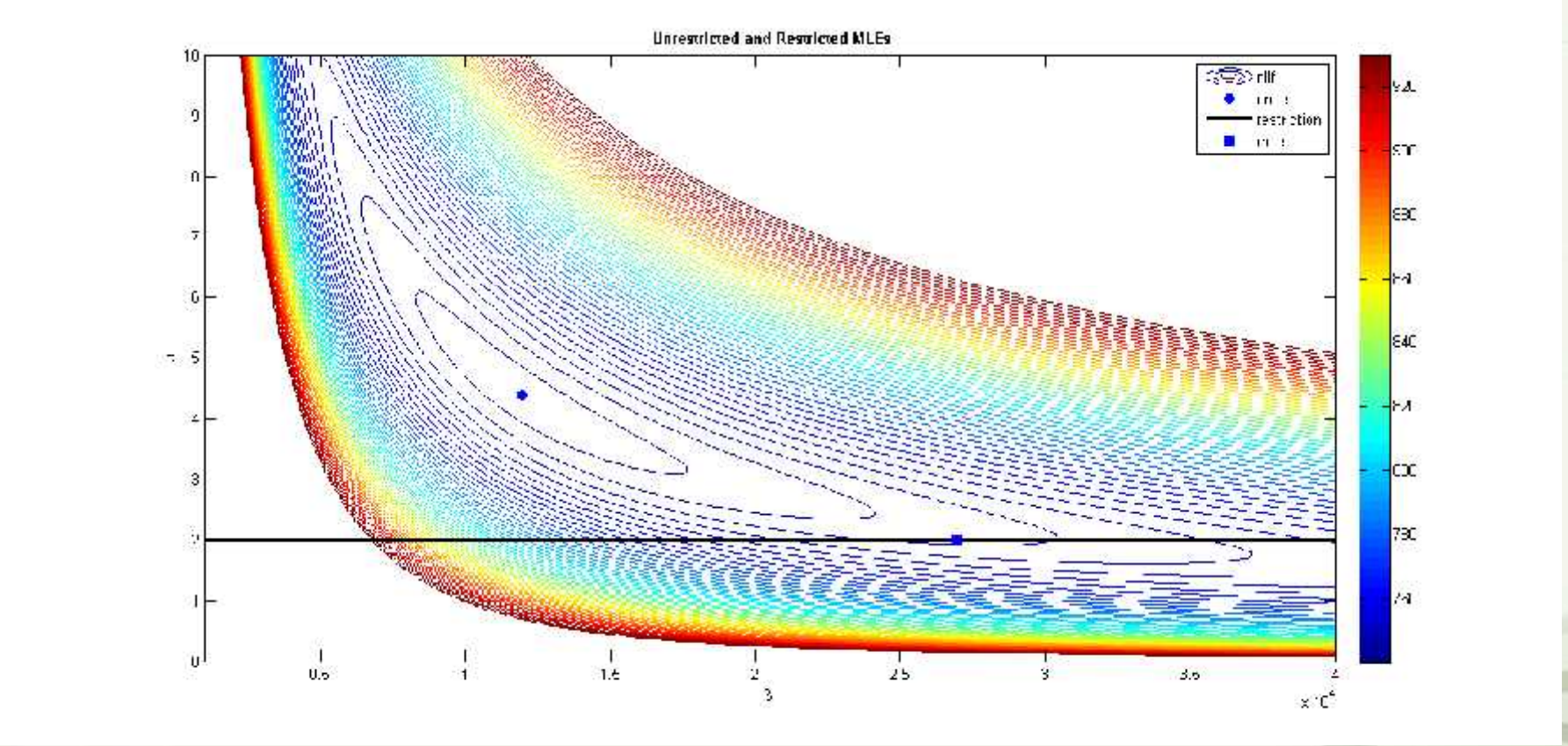
- It is a well-known fact that most semi-urban and rural parts of India suffer from lack of electricity and lack of accessibility to banks. Therefore, in order to make sure that basic banking facilities are available at people's doorstep, UIDAI, with the help of RBI, and various banks created and defined the specification of the MicroATM product.

- UIDAI has signed MoU's with 24 major banks in India, each of which has large footprints across the country. In order to ensure that their services can reach areas where it is not possible to have branches or ATM's, MicroATM's will become the need of the hour. Therefore, it can be inferred that there will be a demand for such devices as soon as UID's mechanism is fully complete.

Risk Analysis



ROI


Unrestricted and Restricted MLEs
restriction
0
1
2
3
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8
9
10
0.5
1
1.5
2
2.5
3
3.5
4

Project sequence, milestones and timelines

WorkPlans \ Timelines	*Project year and quarters*											
	Year 1				*Year 2*				*Year 3*			
	1	2	3	4	1	2	3	4	1	2	3	4
WP1: Equipment Procurement and Installations												
Biometric Sensors and Scanners	√	√										
HPC Biometric Specific Material	√											
microATM matrial		√										
WP2: Data Collection and Prototype Mapping (Launch of beta ver)												
Database creation, Management, Mining and Benchmarking		√	√									
Mapping of the existing solution to the new data	√	√										
Launching of beta version to the potential client bank		√										
WP3: AADHAR test server test beds and results												
Aadhar server connectivity, test beds and data analytics	√	√										
WP4: System Integration and scalability testing												
Integration of system parts (hard and soft)			√	√								
Authentication of the framework to make system flexible			√	√								
Testing solutions across scales		√	√									
WP5: microATM compatible and ISO compliant solution/product												
Compliance to all the ISO norms and microATM specifications		√	√	√								
Matching system accuracies per UID morns for		√	√	√								
WP6: System characterization for market evaluation (Technology Transfer)												
a) Formulation of the value chain model			√	√								
b) Value chain analysis and model assessment			√	√								
Annual Reports and Final report				√								

Project Management Execution

Work Executed	Project contribution %	People / Organizations who executed the project
WP1: Equipment Procurement and Installations	15%	
Biometric Sensors and Scanners	5%	Dr. Abhyankar / Dr. Gosavi / BEL
HPC Biometric Specific Material	5%	Dr. Abhyankar
microATM matrial	5%	Dr. Abhyankar / Dr. Gosavi / BEL
WP2: Data Collection and Prototype Mapping (Launch of beta ver)	20%	
Database creation, Management, Mining and Benchmarking	5%	Dr. Abhyankar
Mapping of the existing solution to the new data	10%	Dr. Abhyankar / Dr. Gosavi
Launching of beta version to the potential client bank	5%	BEL / Dr. Pawar
WP3: AADHAR test server test beds and results	10%	
Aadhar server connectivity, test beds and data analytics	10%	Dr. Abhyankar / BEL
WP4: System Integration and scalability testing	30%	
Integration of system parts (hard and soft)	20%	Dr. Abhyankar / Dr Gosavi
Authentication of the framework to make system flexible	5%	Dr. Abhyankar / BEL
Testing solutions across scales	5%	BEL / Dr. Pawar
WP5: microATM compatible and ISO compliant solution/product	15%	
Compliance to all the ISO norms and microATM specifications	10%	Dr. Abhyankar / Dr. Gosavi / BEL
Matching system accuracies per UID norms	5%	Dr. Abhyankar / Dr. Gosavi / BEL
WP6: System characterization for market evaluation (Technology Transfer)	10%	
a) Formulation of the value chain model	5%	Dr. Pawar
b) Value chain analysis and model assessment	5%	Dr. Pawar / Dr. Abhyankar
Annual Reports and Final report	Seen in totality	Dr. Abhyankar / Dr. Gosavi / BEL / Dr. Pawar



Thank You!

Implementation of Gnanasangama
Department of Higher Education: ICT Initiatives

Tumkur University
Tumakuru, Karnataka

GNANASANGAMA

Main Objectives

- **To promote quality education and transparency in the field of higher education.**
- **ICT initiative programme started during 2015-16**
- **Tumkur University is first in the State to implement this Programme and is appreciated by the Stake Holders**

ICT Initiatives

It is an e-portal consisting of various modules, such as:

- Online PG Admission
- Students E-Attendance
- Students Feedback System
- Online Affiliation
- Office Suite - Letter Monitoring System (LMS) and File Monitoring System (FMS)
- Examination Management System (EMS)
- Electronic Answer Script Evaluation (EASE)
- Human Resource Management System (HRMS) (For Staff Salary disbursement)
- E-Content and E-Learning
- E-Proceedings
- Court Case Management System (CCMS); and other modules.

Examination Management System (EMS)

- **Using the software developed by NIC we successfully conducted UG and PG Examination for 2015-16.**

- **Results are published through the same software.**

Electronic Answer Script Evaluation (EASE)

- **We are ready to implement EASE from next the academic year.**

- **Required Infrastructure such as scanners, systems, networking are being setup.**

Exam Application



Registration Number Generation

Government of Karnataka

User ID : TMRE College Name:

Home Admin LogOut

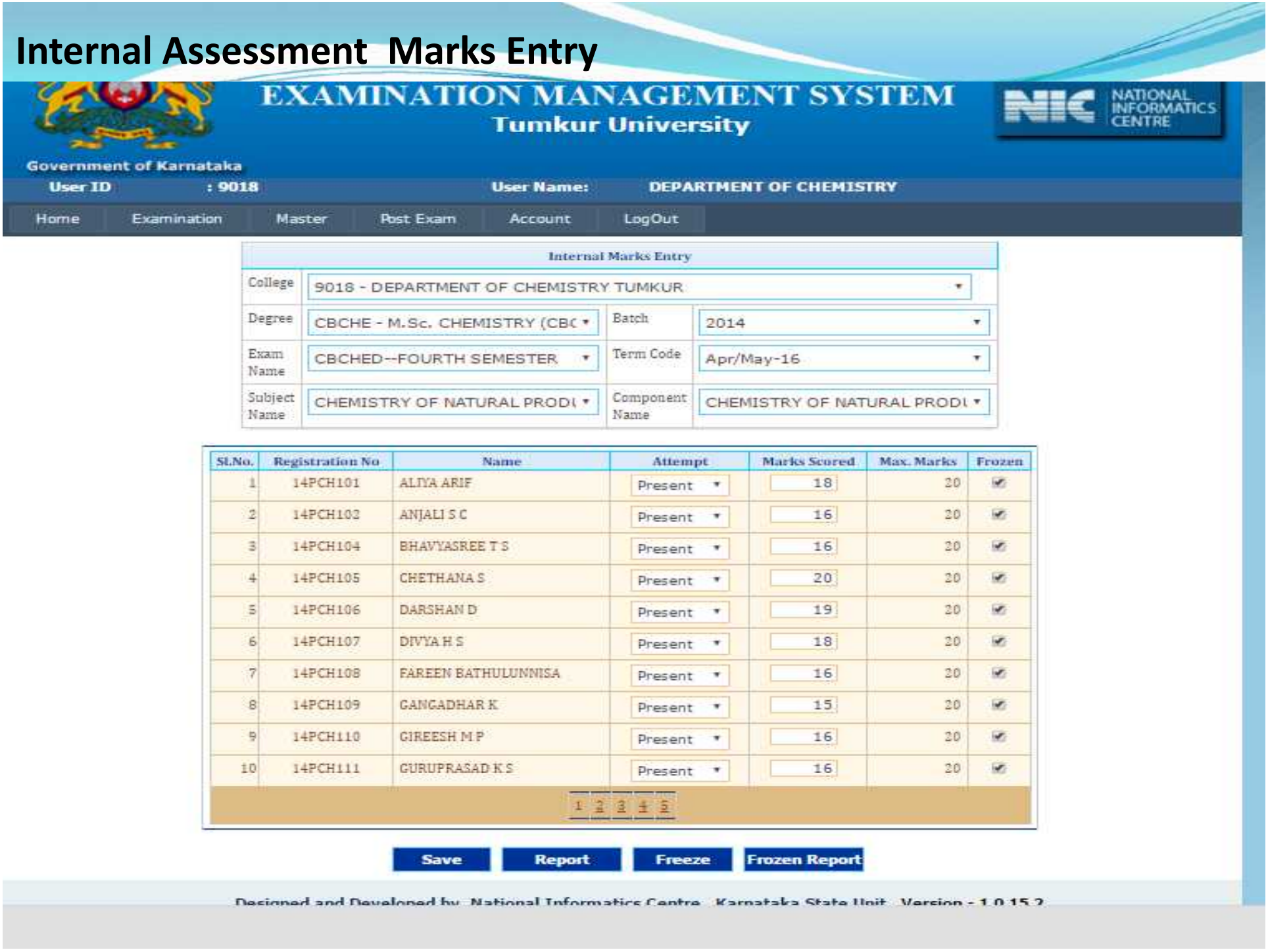
College wise Registration Number

College	Univerisity College Of Science
Degree Type	Bachelor of Science

Generate

Sr No	Registration Number	Application Number	Student Name	Degree
1	15S50417	202846	BALAKRISHNA M L	BSc-CBBt
2	15S50418	202842	BHARATHKUMAR H S	BSc-CBBt
3	15S50419	202851	CHAYAKUMARA K T	BSc-CBBt
4	15S50420	202855	CHETHANA R PRASAD	BSc-CBBt
5	15S50421	202859	DEEPIKA GS	BSc-CBBt
6	15S50422	202863	HEENA A	BSc-CBBt
7	15S50423	202866	HEMANTH J	BSc-CBBt
8	15S50424	202868	KAVYASHREE B R	BSc-CBBt
9	15S50425	202871	MEGHANA M R	BSc-CBBt
10	15S50426	204251	MOHAMMED HUSSAIN	BSc-CBBt
11	15S50427	202877	MONIKA A S	BSc-CBBt
12	15S50428	202879	NAGASHREE R S	BSc-CBBt
13	15S50429	202880	NIKHILRAJ URS	BSc-CBBt
14	15S50430	202830	RAMESHA R	BSc-CBBt

Internal Assessment Marks Entry



Hall Ticket Generation

Government of Karnataka

EXAMINATION MANAGEMENT SYSTEM
Tumkur University

NATIONAL INFORMATICS CENTRE

User ID : 1003 User Name: UNIVERSITY COLLEGE OF SCIENCE

Home | Examination | Master | Post Exam | Account | LogOut

Generate Hall Ticket

Batch: 2014 Degree: BSC - Bachelor of Science

TermCode: Apr/May-16 Bulk Hall Tickets

List Of Students

Sl.No.	Appl.No.	Reg.No.	Student Name	Degree	
1	20160033878	14S50002	ANANDAKUMARA H S	BSC	Download
2	20160033889	14S50003	BABYS-YAMIL: B R	BSC	Download
3	20160033904	14S50004	BHAVYA R	BSC	Download
4	20160035524	14S50005	CHAITHRA B K	BSC	Download
5	20160033910	14S50006	CHA\DAN T V	BSC	Download
6	20160033916	14S50007	CHA\DANA P	BSC	Download
7	20160035450	14S50008	CHARAN N C	BSC	Download
8	20160038440	14S50009	CHETHANA H M	BSC	Download
9	20160033964	14S50010	DEEPA S K	BSC	Download
10	20160037513	14S50011	DEEPIKA R L	BSC	Download

1 2 3 4 5 6 7 8 9 10 ...

Designed and Developed by National Informatics Centre , Karnataka State Unit. Versio

Tumkur University , Karnataka

Vishwavidyanilaya Karyalaya BH Road, Tumkur 572103

HALL TICKET

Apr/May-16 EXAMINATION

Course : Bachelor of Science

Name of The College : 1003 UNIVERSITY COLLEGE OF SCIENCE

Exam Center : 1003 UNIVERSITY COLLEGE OF SCIENCE

Register No : 14S50002 Student Id: 60033878

Student Name : ANANDAKUMARA H S



Subject Appearing

Sl No	Sub Code	Subject Title	QP Code	Date and Time	Answer Book No	Invigilator Signature
1	B41	PHYSICS-II				
2	B44	ELECTRONICS-II				
3	B41	PHYSICS-IV				
4	B44	ELECTRONICS-IV				
5	B07	KANNADA [K]	22903	10/05/2016 09:30 to 12:30		
6	B21	ENGLISH [P-09]	10910	12/05/2016 09:30 to 12:30		
7	B25	COMPUTER FUNDAMENTALS	10903	14/05/2016 09:30 to 12:30		
8	D06	ENVIRONMENTAL SCIENCE	10902	17/05/2016-14:00 to 17:00		
9	B39	MATHEMATICS-II	22287	19/05/2016-09:30 to 12:30		
10	D09	MATHEMATICS-IV	22437	23/05/2016-09:30 to 12:30		
11	B41	PHYSICS-II	22299	24/05/2016-09:30 to 12:30		
12	B41	PHYSICS-IV	22440	25/05/2016-09:30 to 12:30		
13	B44	ELECTRONICS-II	22241	26/05/2016-09:30 to 12:30		
14	B44	ELECTRONICS-IV	22441	27/05/2016-09:30 to 12:30		

Dispatch Statement

Tumkur University

Vishwavidyanilaya Karyalaya BH roadTumkur -572103

Date: 26/07/2016 11:22:03

Answer Booklet bundle dispatch statement - Apr/May-16

Examination Center: 1001 G.F.G.C. HEBBUR

Examination Date: 10/05/2016 (Morning Session)

Sl. No.	Q.P.Code	Applied	Present	Absent	No of Bundles	Remarks	Subject/Paper
1	10404	67					KANNADA (>= 08)-THEORY PAPER
2	13403	70					KANNADA-THEORY PAPER

End of statement for Examination date: 10/05/2016 00:00:00 09:30:00

Make a Xerox copy for your office records

Signature of Chief Supdt.

Appearing List

1 of 2 ? Find | Next

Q.P.Codewise appearing register numbers - Apr/May-16
Exam Centre : 1001 G.F.G.C.

Exam Date : 10/05/2016 Exam Time : 2:00PM TO 5:00PM
Q.P.Code : 10634 Subject / Paper : ECONOMICS - VII (INDIAN ECONOMY)THEORY PAPER

Coll. / Dept. : 1001 G.F.G.C.

Total number of students appearing for the exam from the Coll./Dept. :59

13A35702	13A35703	13A35704	13A35706	13A35707	13A35709	13A35712	13A35713	13A35714	13A35716	13A35719	13A35720
13A35721	13A35722	13A35726	13A35727	13A35728	13A35729	13A35730	13A35732	13A35733	13A35734	13A35735	13A35737
13A35739	13A35740	13A35741	13A35742	13A35743	13A35744	13A35745	13A35746	13A35748	13A35749	13A35750	13A35751
13A35753	13A35754	13A35755	13A35756	13A35757	13A35758	13A35759	13A35760	13A35761	13A35762	13A35763	13A35764
13A35765	13A35767	13A35769	13A35771	13A35772	13A35773	13A35774	13A35775	13A35776	13A35777	13A35779	

Total number of students appearing for the exam in the center: 59

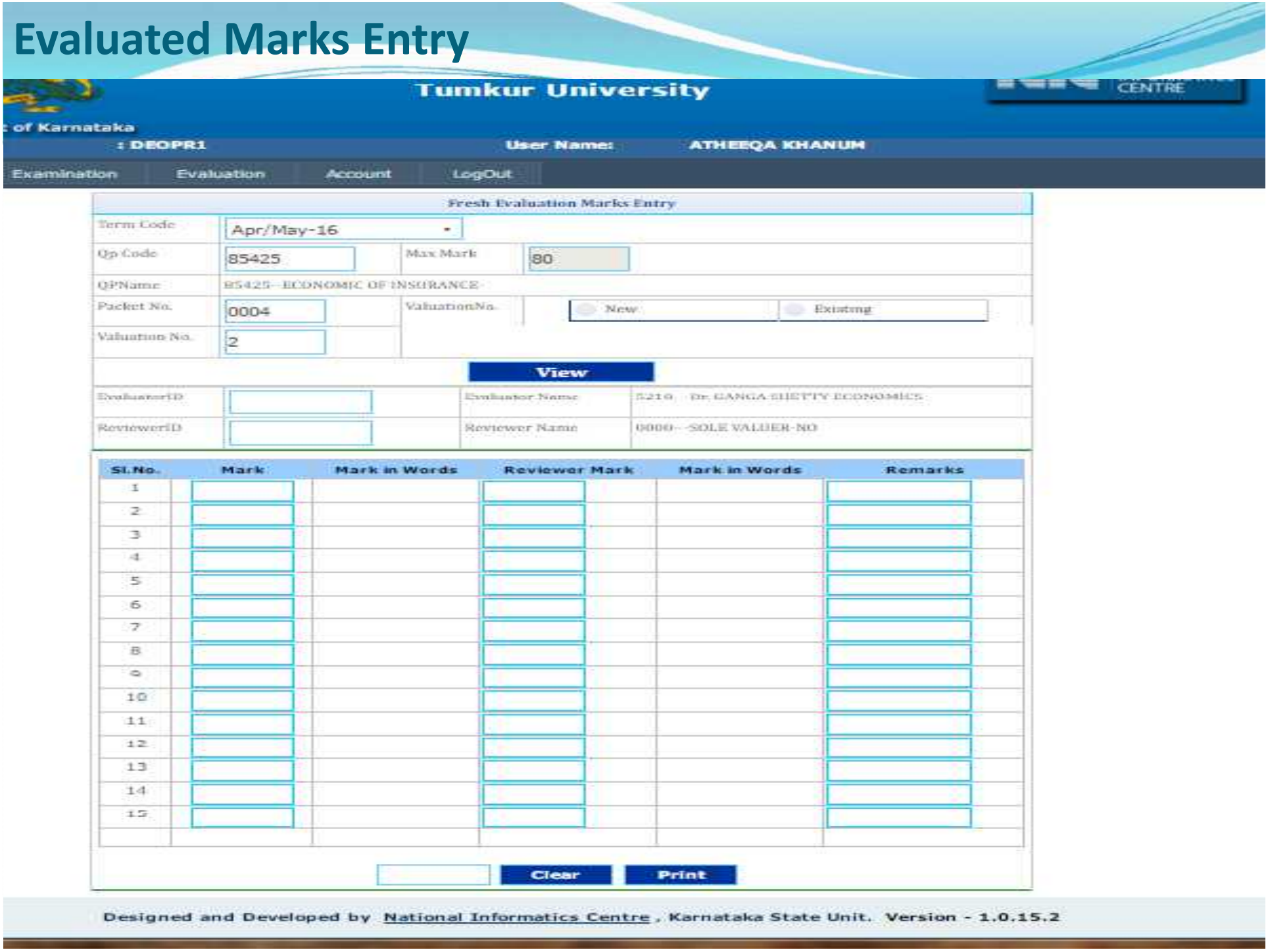
Additions, if any: (use additional sheet if required)

Total number of answer scripts despatched:

Total number of absentee:

Note: Round-off Reg No. for absentee
Make a xerox copy for your office records

Evaluated Marks Entry



Consolidated Ledger

10.10.31.106/ems/Report/ReportPage.aspx?ExamID=BAF&TermCode=APR-16&CollegeCode=1001&CourseLevel=1&ReportId=22

1 of 13 Find | Next

CONSOLIDATED EXAMINATION LEDGER FOR BA SIXTH SEMESTER - APR-16

Date: 7/27/2016 10:29:40 AM G.F.G.C. HEBBUR Page: 1/13

11A10050	Caste	Sub	ECONO	ECONO	HISTO	HISTO	POLIT	POLIT
SHOBHA M	ST	Th.	60+10	43+10	61+10	55+10	56+10	66+9
		Pr.						
Result: Pass, Class: PASS CLASS		Tot	070	053	071	065	066	075
MC No:		Res	APR-14	APR-14	Pass	APR-14	APR-14	APR-14
Total Marks: 0400 Four Hundred and								

13A35702	Caste	Sub	ECONO	ECONO	HISTO	HISTO	POLIT	POLIT
ANITHA G R	CAT-	Th.	59+9	75+9	67+9	52+9	52+9	72+9
		Pr.						
Result: Pass, Class: FIRST CLASS		Tot	068	084	076	061	061	081
MC No:		Res	Pass	Pass	Pass	Pass	Pass	Pass
Total Marks: 0431 Four Hundred and Thirty One								

13A35703	Caste	Sub	ECONO	ECONO	HISTO	HISTO	POLIT	POLIT
ANITHA M H	CAT-	Th.	48+9	71+9	73+9	59+9	60+9	72+9

MARKS CARD PRINTING

ತುಮಕೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ TUMKUR UNIVERSITY

Pareeksha Bhavan,
B.H.Road,
Tumkur-572 103.

CF 0135830

STATEMENT OF MARKS

FIFTH SEMESTER BCOM EXAMINATION -Nov/Dec-15

Register Number 13C32105

Name: CHANDRAKALA S P

Sl. No.	Subject / Paper		Theory/ Practical		IA/Record/ Viva		Total		Remarks
			Max.	Sec.	Max.	Sec.	Max.	Sec.	
1	INCOME TAX - I	Th.	080	039	020	020	100	059	PASS
2	LAW AND PRACTICE OF BANKS	Th.	080	037	020	019	100	056	PASS
3	ENTREPRENEURIAL DEVELOPME	Th.	080	058	020	020	100	078	PASS
4	SOFT SKILLS FOR PERSONALI	Th.	080	046	020	019	100	065	PASS
5	AUDITING	Th.	080	038	020	020	100	058	PASS
6	ADVANCED FINANCIAL ACCOUN	Th.	080	053	020	020	100	073	PASS
7	MANAGEMENT ACCOUNTING	Th.	080	034	020	020	100	054	PASS
	Grand Total						700	443	1ST CLASS

Total marks secured : Four Hundred and Forty Three

Min to Pass :35% Practical, 35% External Written, 40% Subject

1073-GURUSHREE COLLEGE FOR B.S.W., & M.S.W. TUMKUR

15/07/2016
CF0135830

Registrar (Evaluation)

Student Examination History

Reg No. 14ED5647		Name: MANJULA R	
Father Name: RAJASHEKHAR R			Mother Name: JAYASHEELA S M
Gender:F	Caste: 5	Batch: 2014	
College: 6019: DIVYA COLLEGE OF EDUCATION TUMKUR			
Degree: Bachelor of Education			

Term	Exam	Total	Result	Class
⊞ APR-15	FIRST SEMESTER	481	P	P
⊟ OCT-15	SECOND SEMESTER	709	P	1

SubjectID	Subject Name	Status	Total	Result
⊟ BEDB21	CCM-I-ENGLISH	P	124	P

Component No	Type	Component Name	Marks	Grace	Total	Max
0	TTP	CCM-I-ENGLISH-THEORY PAPER	56	0	0	80
1	TIA	CCM-I-ENGLISH-THEORY IA	19	0	0	20
2	PPR	CCM-I-ENGLISH-PRACTICAL	49	0	0	50

⊞ BEDB32	CCM-II-HISTORY AND CIVICS	P	138	P
⊞ BEDB33	SCHOOL MANAGEMENT	P	81	P
⊞ BEDB34	PSYCHOLOGY OF LEARNING & INSTUCTION	P	82	P
⊞ BEDB35	EDU. & NATIONAL CONCERNS	P	43	P
⊞ BEDB51	PRACTICUM - I	P	124	P
⊞ BEDB52	PRACTICUM - II	P	117	P

Online PG Admission 2016

- **Successfully implemented from 2016-17**
- **Students Registration mandatory through e-portal developed by Higher Education Department, GoK**



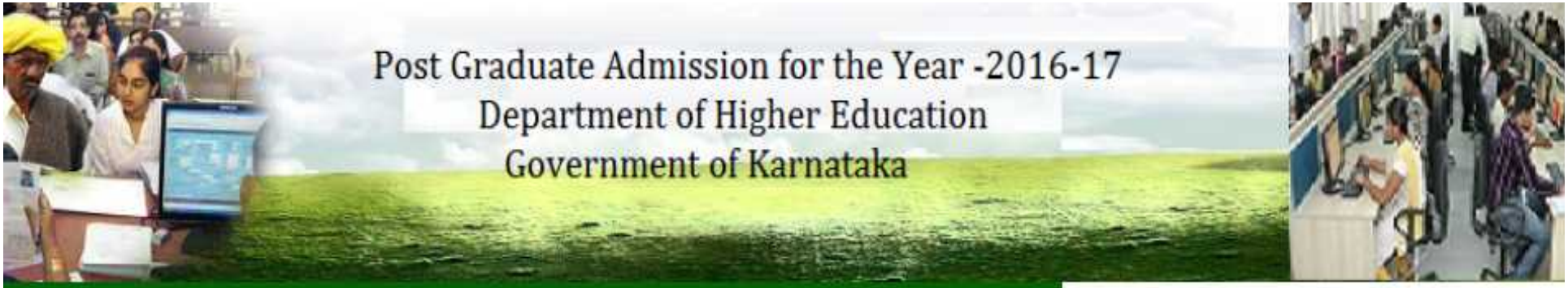
Post Graduate Admission for the Year -2016-17
Department of Higher Education
Government of Karnataka

Change Password Logout

Application Received College / Course Wise

College Name: Tumkur University

Sl No.	Degree	Intake	No of Applications	
1	MSc - Physics-Physics	62	200	Details
2	MA-Kannada-Kannada	56	64	Details
3	MCOM-Master in Commerce - Commerce related Subjects	58	362	Details
4	MA - ENGLISH-Master in Arts	52	74	Details
5	MA - ECONOMICS-MA - ECONOMICS	56	128	Details
6	MA - HISTORY-MA - HISTORY	48	54	Details
7	MA - POLITICAL SCIENCE-MA - POLITICAL SCIENCE	46	56	Details
8	MA - SOCIOLOGY-MA - SOCIOLOGY	48	32	Details
9	MSc - BIO CHEMISTRY-MSc - BIO CHEMISTRY	50	79	Details
10	MSc - BOTONY-MSc - BOTONY	48	47	Details
11	MSc - CHEMISTRY-MSc - CHEMISTRY	56	197	Details
12	MSc - MATHEMATICS-MSc - MATHEMATICS	56	101	Details
13	MSc - ZOOLOGY-MSc - ZOOLOGY	48	81	Details
14	MBA-Master of Business Administration	0	10	Details
15	MSW-Master of Social Work	100	113	Details
16	MA-Public Administration-Public Administration	32	4	Details
17	MSc-ENVIRONMENTAL SCIENCE-MSc-ENVIRONMENTAL SCIENCE	37	4	Details
18	MSc-LIBRARY AND INFORMATION SCIENCE-MSc-LIBRARY AND INFORMATION SCIENCE	37	8	Details
19	MSc-BIOTECHNOLOGY-BIOTECHNOLOGY	100	0	Details
	Total :	990	1614	



Application Received Course Wise

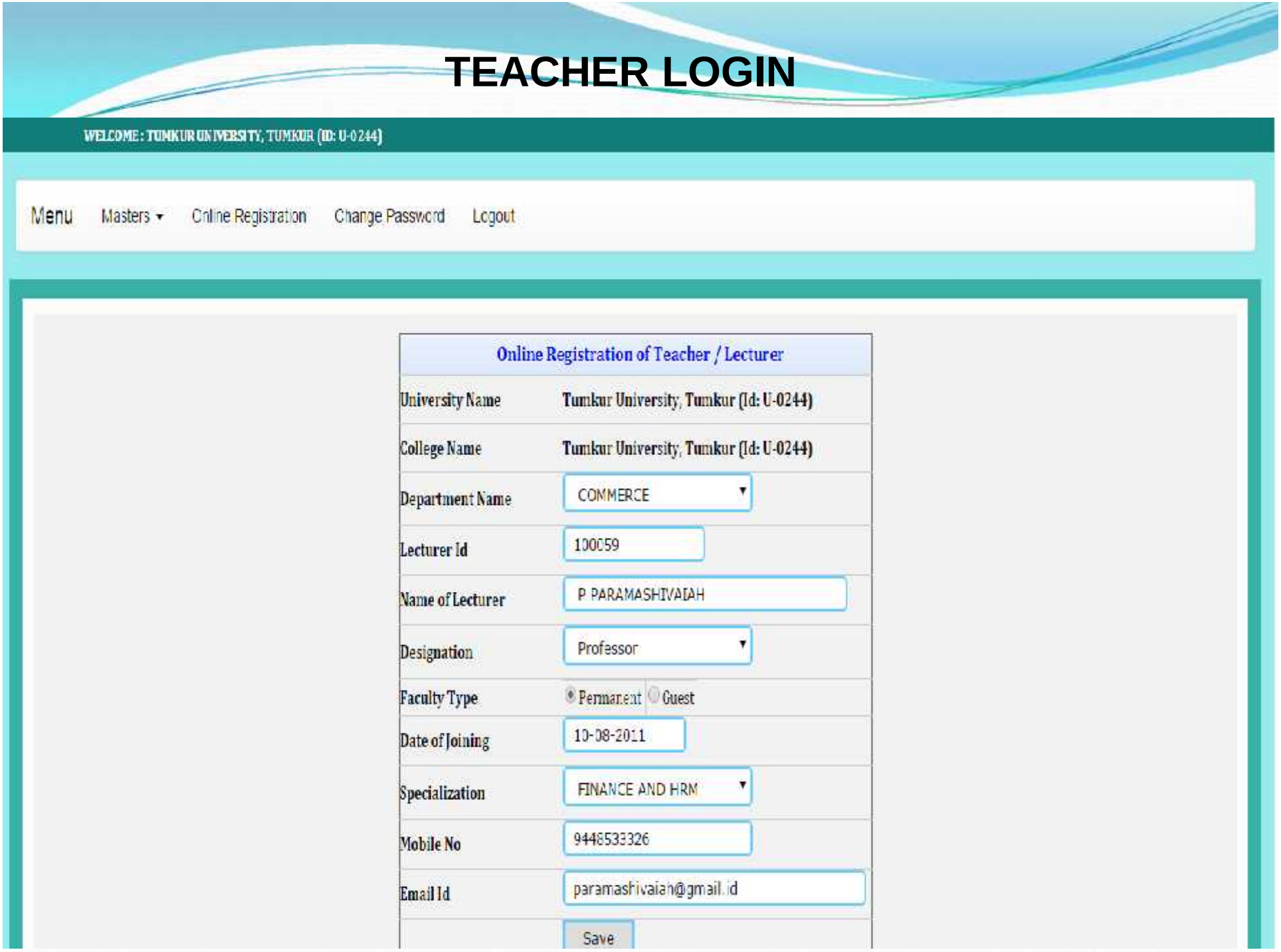
Back

Sr No.	Application Number	Candidate Name	Father Name	Date of Birth	Category	Max Marks	Marks Obtained
1	00001066	Pavithra S	Srinivasa H	01-08-1995	Category-2A	2400	1511
2	00000313	KAMALAKSHI G	GOVINDAPPA C	30-05-1995	Category-3A	2400	1657
3	00000130	RAMYA T A	AMARANATHA	08-07-1995	Scheduled Caste	2400	1656
4	00001360	SHRUTHI V	VEERABHADRAPPA S	23-07-1990	Category-3B	2400	1555
5	00000429	Nithyashree K R	Yogaraj K S	21-09-1993	Category-3B	2400	1624
6	00000160	LAVANYA V	VAIKUNTACHARI	02-04-1995	Category-2A	2400	1858
7	00000241	SUMA B M	MALLIKARJUNA	12-02-1996	Category-3B	3000	2224
8	00000059	VINAY T	THIPPESWAMY	05-05-1994	Category-3B	2400	1492
9	00000104	RAGHUKUMAR C	CHANDRANAIK	01-06-1993	Scheduled Caste	2400	1454
10	00000178	dileepa k r	ramanna	15-07-1995	Category-3A	2400	1796
11	00000195	SOUJANYA J	JAYARAMA	03-01-1996	Category-1	2400	1674

Students E-Attendance

- Implemented from 02-11-2015 for PG Departments
- Class Matrix and Timetable generated through system
- Teachers, will login to the attendance portal to mark attendance of students
- 2,58,500 Students attendance marked out of 1024 classes for the year 2015-16
- SMS is delivered to Parents of Absentee Students

TEACHER LOGIN



TEACHER'S TIME TABLE

WELCOME : TUMKUR UNIVERSITY, TUMKUR (ID: U-0244)

Menu Masters ▾ Registration ▾ Vy Profile ▾ Logout

Timetable Creation

Department Name	PHYSICS		
Degree	MSc - Physics	Semester	1
Section	A	Acadamic Year	2015

Days	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7	Period 8
Monday	10.00-11.00 CPT.1.3 Electronic Circuits Devices and Applications G Chitra	11.00-12.00 SPT.1.4.2 Material Science-I DR H NAGABHUSHANA	12.00-01.00 CPT.1.1 Classical Mechanics Dhanith Kumar	01.30-05.30 Lab				
Tuesday	10.00-11.00 CPT.1.2 Mathematical Physics DR R G VAIDYA	11.00-12.00 CPT.1.3 Electronic Circuits Devices and Applications G Chitra	12.00-01.00 CPT.1.1 Classical Mechanics Pavithra M	01.30-05.30 Lab				
Wednesday	10.00-11.00 SPT.1.4.2 Material Science-I Bhavya K P	11.00-12.00 CPT.1.2 Mathematical Physics DR R G VAIDYA	12.00-01.00 Tutorial	01.30-05.30 Lab				
Thursday	10.00-11.00 CPT.1.2 Mathematical Physics DR R G VAIDYA	11.00-12.00 CPT.1.1 Classical Mechanics Mohan Kumar T C	12.00-01.00 CPT.1.3 Electronic Circuits Devices and Applications G Chitra	01.30-05.30 Lab				
Friday	10.00-11.00 SPT.1.4.2 Material Science-I DR H NAGABHUSHANA	11.00-12.00 CPT.1.3 Electronic Circuits Devices and Applications G Chitra	12.00-01.00 CPT.1.1 Classical Mechanics Pavithra M	01.30-05.30 Lab				
Saturday	10.00-11.00 CPT.1.2 Mathematical Physics DR R G VAIDYA	11.00-12.00 SPT.1.4.2 Material Science-I Bhavya K P	12.00-01.00 Seminar	01.30-05.30 Lab				

Students E-Attendance Monitoring System [SeAMS]
Department Of Higher Education
Government Of Karnataka

WELCOME : 00092, NAME : DR R G VAIDYA, COLLEGE : TUMKUR UNIVERSITY, TUMKUR (ID: U-0244)

DATE : 17-11-2015

Menu Change Password Activity ▾ Logout

Attendance for today date: 17-11-2015 , Tuesday

DegreeSubject	Subject Name	Timing	Period	Day Name	Semester		
MSc - Physics-CPT 1.2 Mathematical Physics -A	CPT.1.2 Mathematical Physics	10.00-11.00	1	Tuesday	1	Attendance	Upload Class Content
MSc - Physics-OEP.3.8(3.4) Nano Science and Technology-A	OEP.3.8(3.4) Nano Science and Technology	01.30-05.30	5	Tuesday	3	Attendance	Upload Class Content

ONLINE ATTENDANCE SHEET

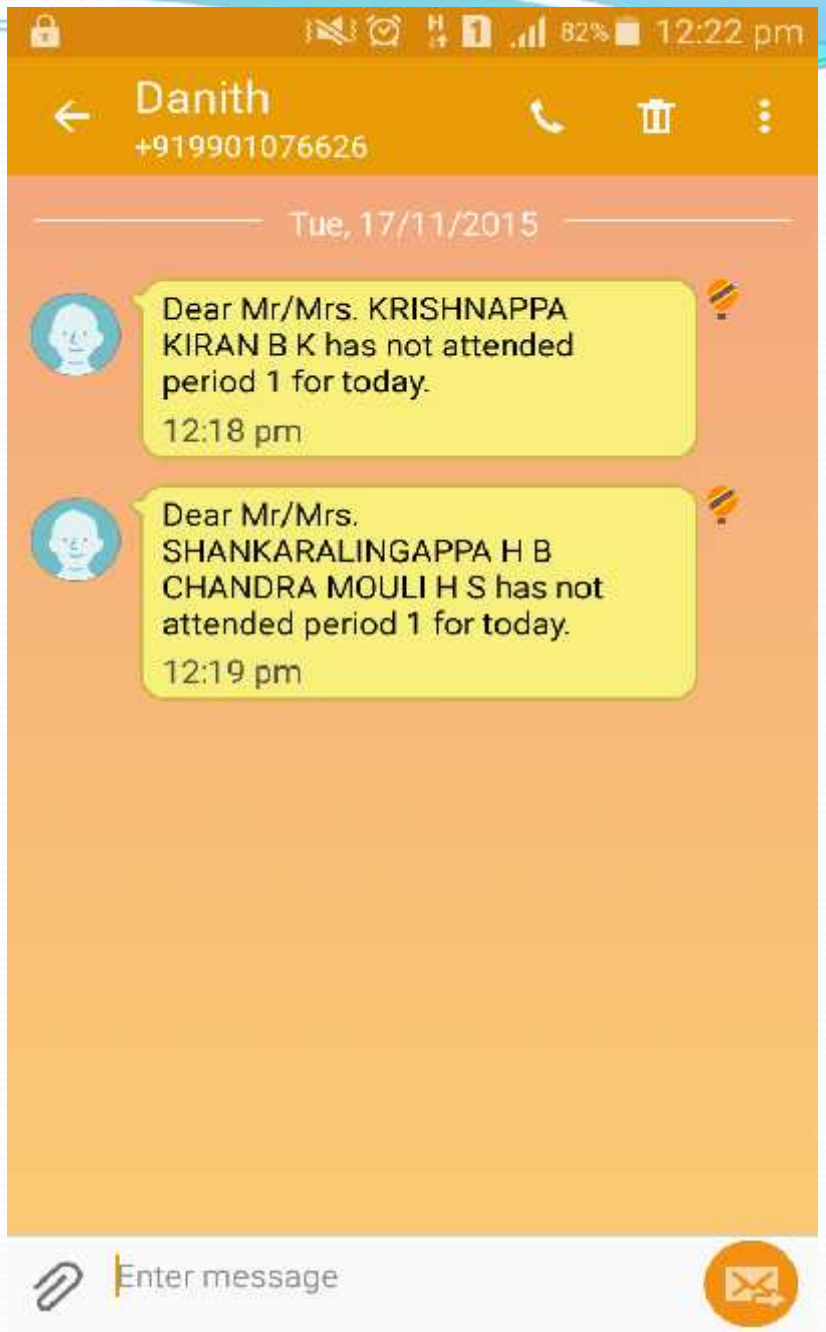
WELCOME: 00092, NAME : DR R G VAIDYA, COLLEGE: TUMKUR UNIVERSITY, TUMKUR (ID: U-0244) DATE : 17-11-2015

Menu Change Password Activity Logout

Day : - 17-11-2015

S.No	Registration No	Student Name	
1	064	MANJUNATHA T R	✔ P
2	075	LAVANYA P U	✔ P
3	1000	CHANDRA MOULI H S	A
4	103	ASHWINI S H	✔ P
5	107	MEGHA V	✔ P
6	1168	BAPPARAJU G M	✔ P
7	1180	DARSHAN N L	✔ P
8	1247	AYESHA BI	✔ P
9	1256	KIRAN B K	A
10	1302	LOKAMATHE A B	✔ P
11	1327	CHITHRA H N	✔ P
12	1361	MAHALAKSHMI T H	✔ P
13	1468	MAHALAKSHMI T D	✔ P
14	147	NETRAVATHI K V	✔

SMS TO ABSENT STUDENT'S PARENT

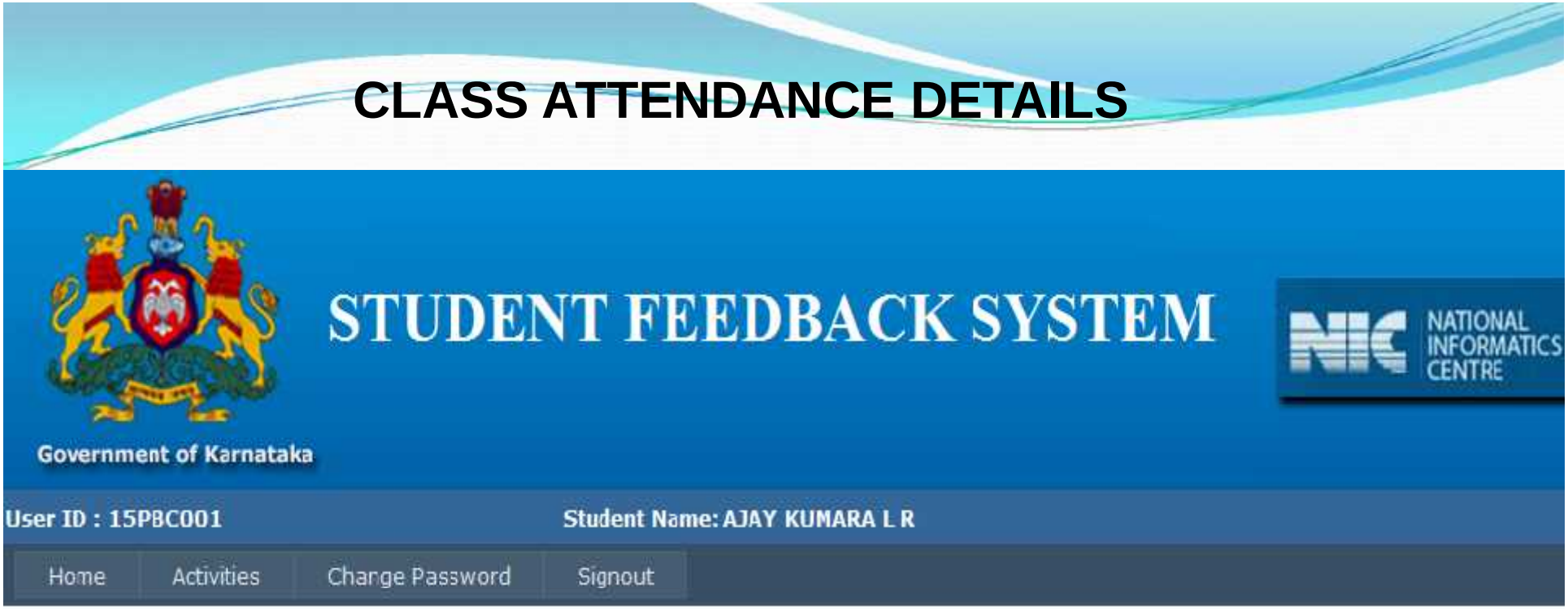


Students Feedback System (Teacher Evaluation)

- Successfully implemented from 01-12-2015 for PG Departments
- Feedback from students as on today – 17,340
- Compulsory feedback from student is taken after each class
- 10 Parameters for students feedback are as follows:

1. Class Room Organization
2. Explanation or Discussion
3. Interest and Enthusiasm
4. Interaction with students
5. Feedback to students
6. Availability of consultation
7. Visual Materials
8. Voice and Speech
9. Reference and Supporting Materials
10. Any Comments

CLASS ATTENDANCE DETAILS



Class Attendance Details

Sl.No.	Class Date	Subject Name	Lecture Name	Period Timing	Period Code	
1	04-05-2016	SPT 2.3A Cell Biology and Endocrinology	DR K S GIRISH	02.00-03.00	2	feed back
2	30-04-2016	Seminar	MANOHAR SHINDE	02.00-03.00	4	feed back
3	27-04-2016	CPT 2.2 Metabolism of Fueal Molecules;	THIPPESWAMY T G	03.00-04.00	3	feed back
4	16-04-2016	Seminar	MANOHAR SHINDE	02.00-03.00	4	feed back
5	13-04-2016	SPT 2.3A Cell Biology and Endocrinology	DR K S GIRISH	02.00-03.00	2	feed back
6	02-04-2016	CPT 2.1 Enzymology;	DR K S GIRISH	10.00-11.00	1	feed back
7	02-04-2016	Seminar	MANOHAR SHINDE	02.00-03.00	4	feed back
8	01-04-2016	CPT 2.1 Enzymology;	DR K S GIRISH	10.00-11.00	1	feed back



Government of Karnataka

STUDENT FEEDBACK SYSTEM

NIC NATIONAL INFORMATICS CENTRE

User ID : 15PBC001 Student Name:AJAY KUMARA L R

Home | Activities | Change Password | Signout

Student Feed Back

Period ◉ | Day ○ | Week ○ | Month ○

Class Details

Class Date	03-02-2016 00:00:00
Period	4

1. Class Room Organization

Aims of the class clearly specified,any preparations that was needed for students was detailed,class time was effectively used,well structured class presentation.

5 ○ 4 ○ 3 ○ 2 ○ 1 ○

2. Explanation or Discussion

3. Interest and Enthusiasm

4. Interaction with students

5. Feedback to students

6. Availability for consultation

7. Visual Materials

8. Voice & Speech

9. Reference or Supporting Materials

10. Any Comments

Online Affiliation

- Implemented from the academic year 2015-16
- Training workshops conducted to Principals and supporting staff
- 89 Colleges have submitted online affiliation application
- Local Inspection Committees (LIC) visited the colleges
- LIC Reports and Photos uploaded in the University Website

Tumkur University , Karnataka

Government of Karnataka

Department of Higher Education

Online Affiliation

NATIONAL INFORMATIC CENTRE

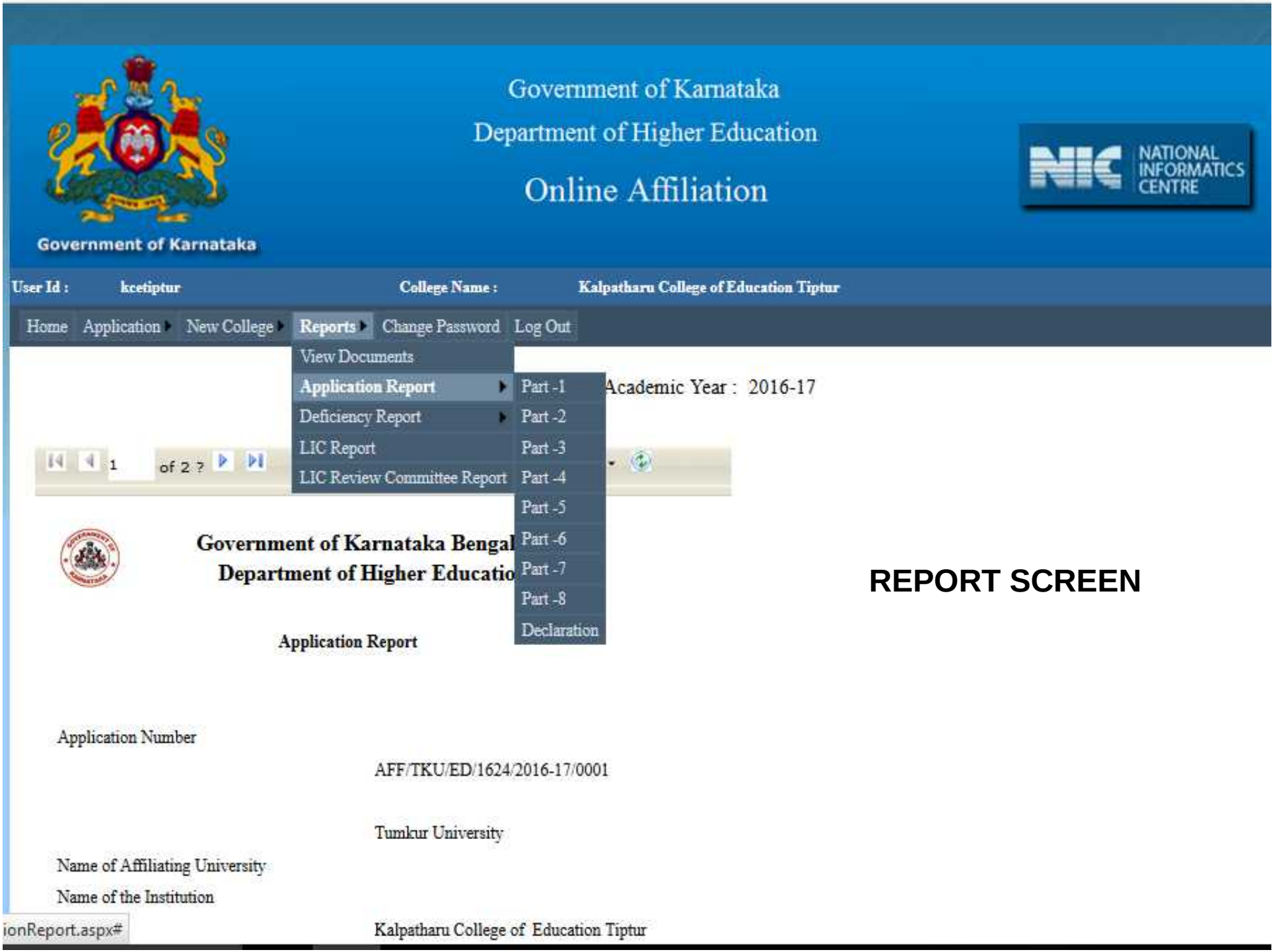
vernment of Karnataka

: U-0232 University Name : Tumkur University

dministration | Masters | Request Status | LIC Committe | Change Password | Log Out

Login List

S.No	College Code	College Name	User ID
1		Sree Siddaganga College of Arts, Science and Commerce,Tumkur	sscasc
2		Government Fine Arts College Tumkur	gfactumkur
3		Ananya Institute of Commerce And Management Tumkur	ananyatumkur
4		Bapuji First Grade College Tumkur	bapujitumkur
5		Bharathi College of Teacher Education Tumkur	bctetumkur
6		Channamma First Grade College Koratagere	cfgckolala
7		Divya College of Education Tumkur	dcetumkur
8		Gurushree College of Commerce And Social Work Tumkur	gurushreetmk
9		Hemadri First Grade College Tumkur	hemadrifgc
10		Hemadri Post Graduation Center Tumkur	hemadripg
11		Holy Trinity College Kunigal	htckunigal
12		Indira College of Education Tumkur	IndiraBED
13		Indira First Grade College Tumkur	IndiraFGC
14		KSEF College of Education Tumkur	ksefbedtumkur
15		Kalpatharu College of Education Tiptur	kcetiptur
16		Kalpatharu First Grade Science College Tiptur	klpfgctiptur



REPORT SCREEN

OFFICE SUITE

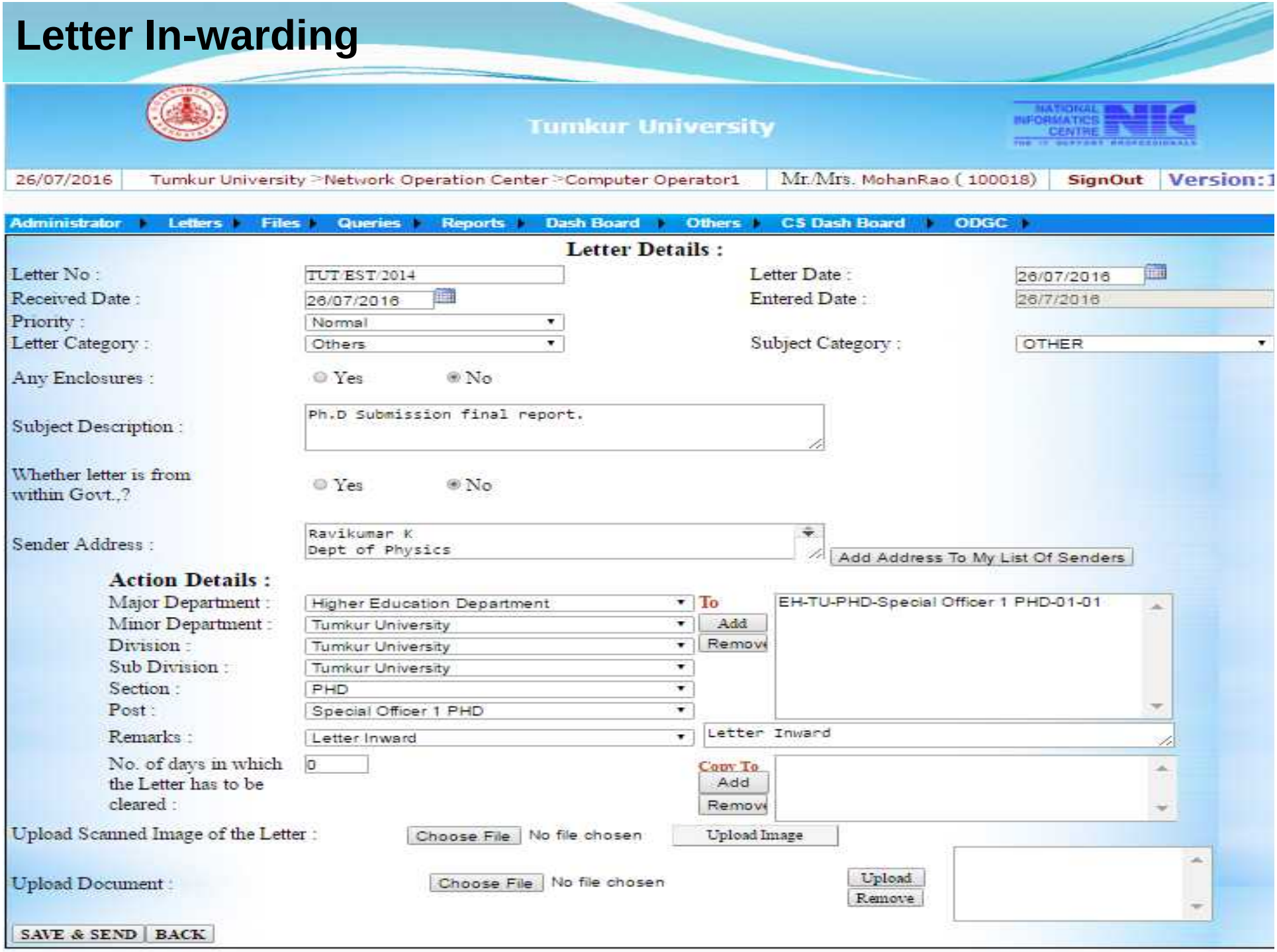
Letter Monitoring System (LMS)

- Implemented from 01-09-2015
- 6010 Letters in-warded as on today through LMS
- Letter Pendency Status is monitored weekly
- Email IDs provided to all Caseworkers and Section Heads
- Pendency Reports generated and emailed

File Monitoring System (FMS)

- Action initiated for inward of letters, scanning of letters and movements of file with note sheet entries from Caseworker to Vice Chancellor and back.
- Total Files transacted : 1601 since 01-09-2015 as on today

Letter In-warding



Letter In-ward Report

Tumkur University

NATIONAL INFORMATICS CENTRE

26/07/2016 | Tumkur University >Network Operation Center >Computer Operator1 | Mr/Mrs. MohanRao (100018) | SignOut | Version:1.1

Administrator ▸ Letters ▸ Files ▸ Queries ▸ Reports ▸ Dash Board ▸ Others ▸ CS Dash Board ▸ ODGC ▸

1 of 3 Find | Next

Letters Sent -Postwise

Department: Tumkur University **Date:** 01/07/2016 - 09/07/2016

Post : Computer Operator1 **Section:** Network Operation Center

Total: 8

Sl No	Letter Comp No/Year	Letter No and Date	Subject	Letter Sender	Sign
Sent To Whom:	TU /Engineering/Executive Engineer			Total: 2	
1	2616/2016	NIL/2614 02/07/2016	Regarding charges for providing the services of Supervisor and Gardening.	Sri Mathru Enterprises, Muneshwara Layout, Laggeere, Bangalore.	
	Remarks: Letter Inward				
2	2620/2016	NIL/2618 02/07/2016	Clarification regarding the duration period of security tender	Proprietor Appu Detective & Security Services, Meenakshi nagar, Kamakshipalya, Bangalore.	
	Remarks: Letter Inward				

Print Date: 26/07/2016 Time 5:06:31 PM Page No: 1 of 3

Employee Dashboard



Statistics & Shortcut	Letters within the Office			Letters from Outside the Office			Sakala Letters			Sakala Probable Date Crossed
	Pend for ack	Ackd	Total	Pend for Ack	Ackd	Total	Pend for Ack	Ackd	Total	Ackd
Today	0	0	0	0	0	0	0	0	0	0
Till Yesterday	59	52	111	0	0	0	0	0	0	0
Total	59	52	111	0	0	0	0	0	0	0

File Status List

Tumkur University

27/07/2016 | Tumkur University >Engineering >Junior Engineer Civil | Mr./Mrs. NagarajaK S (100055) | SignOut | Version:1.1

Administrator ▸ Letters ▸ Files ▸ Queries ▸ Reports ▸ Dash Board ▸ Others ▸ CS Dash Board ▸ ODGC ▸

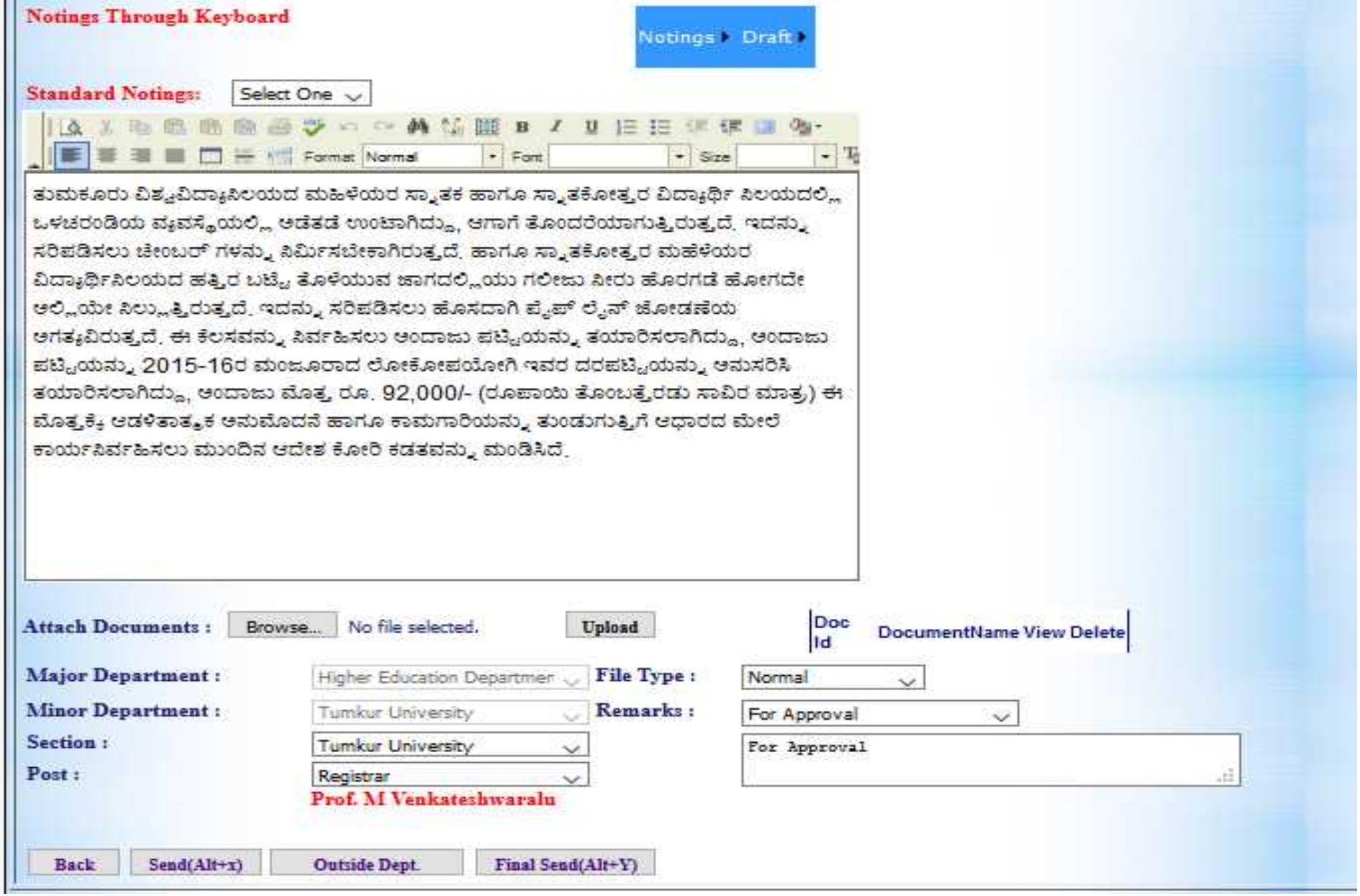
ಸ್ವ ಇಲಾಖೆಯ ಸ್ವೀಕೃತಿಗಾಗಿ ಬಾಕಿ ಇರುವ ಕಡತಗಳು ಒಟ್ಟು : 72

○ ಒಟ್ಟಾರೆ ಸ್ವೀಕೃತಿ / ತಿರಸ್ಕೃತಿ ○ ಕಂಪ್ಯೂಟರ್ ಸಂಖ್ಯೆಯಿಂದ ಹುಡುಕು ○ ವಿಷಯದಿಂದ ಹುಡುಕು ◉ ಒಂದು ಕಡತ ಸ್ವೀಕೃತಿ / ತಿರಸ್ಕೃತಿ ○ ಕಡತದ ವರ್ಗವಾರು ಹುಡುಕು ○ ಶಾಖೆವಾರು ಹುಡುಕು

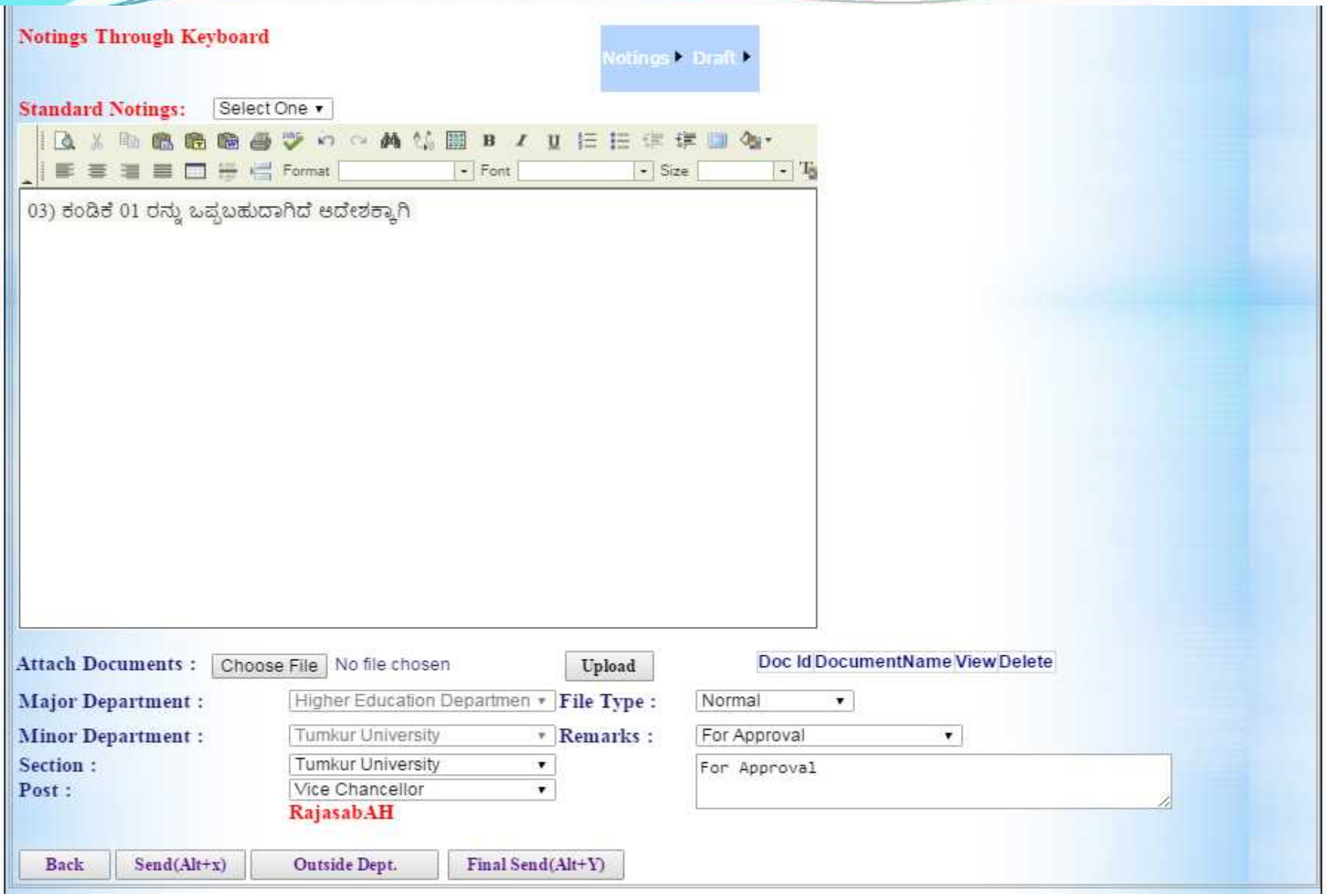
30 ದಿನಕ್ಕಿಂತ ಜಾಸ್ತಿ	21ರಿಂದ 30 ದಿವಸದವರೆಗೆ	10ರಿಂದ20 ದಿವಸದವರೆಗೆ	10 ದಿನಕ್ಕಿಂತ ಕಡಿಮೆ	ಹೊಸ ಕಡತಗಳು	ಸಮಯ ವಿಗಧಿತ	ಅವಧಿ ಮೀರಿದ

ಸ್ವೀಕೃತಿ	ತಿರಸ್ಕೃತಿ	ಕಂಪ್ಯೂಟರ್ ಕ್ರಮ ಸಂಖ್ಯೆ	ಕಡತ ಸಂಖ್ಯೆ	ವಿಷಯ	ಜೋಡಿಸಿರುವ ಕಡತಗಳು	ಕಳುಹಿಸಿದ ದಿನಾಂಕ	ಕಳುಹಿಸಿದ ಶಾಖೆ	ಹಿಂದಿನ ಇತಿಹಾಸ
ACK	Reject	3006	TU160ENGG2016	Providing Street lights from Sadananda Maiyya Building to Dr V S Acharya Building at Tumkur University, Tumkur.	AttachFileNo	22/07/2016	TU / Tumkur University	History
ACK	Reject	2958	TU159ENGG2016	ನಿರ್ದೇಶಕರು, ಕ್ರೀಡಾ ವಿಭಾಗ, ರವರು ನೀಡಿರುವ ಪತ್ರದ ಕುರಿತು.	AttachFileNo	01/07/2016	TU / Tumkur University	History
ACK	Reject	2955	TU158ENGG2016	Maintenance of Transformer Center (THT 262) at Tumkur University Tumkur.	AttachFileNo	14/07/2016	TU / Tumkur University	History
ACK	Reject	2940	TU153ENGG2016	ಶ್ರೀ ವಿ. ಸುರೇಶ್ ಬಾಬು ತಾಂತ್ರಿಕ ಸಮಾಲೋಚಕರು ಇವರನ್ನು ಮುಂದುವರೆಸುವ ಕುರಿತು.	AttachFileNo	15/06/2016	TU / Tumkur University	History
ACK	Reject	2923	TU150ENGG2016	ತುಮಕೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯದ ಫ್ಯಾಕಲ್ಟಿ ಆತಿಥಿ ಗೃಹಕ್ಕೆ ಯು.ಪಿ.ಎಸ್. ಅನ್ನು ಖರೀದಿಸುವ ಕುರಿತು.	AttachFileNo	08/07/2016	TU / Tumkur University	History

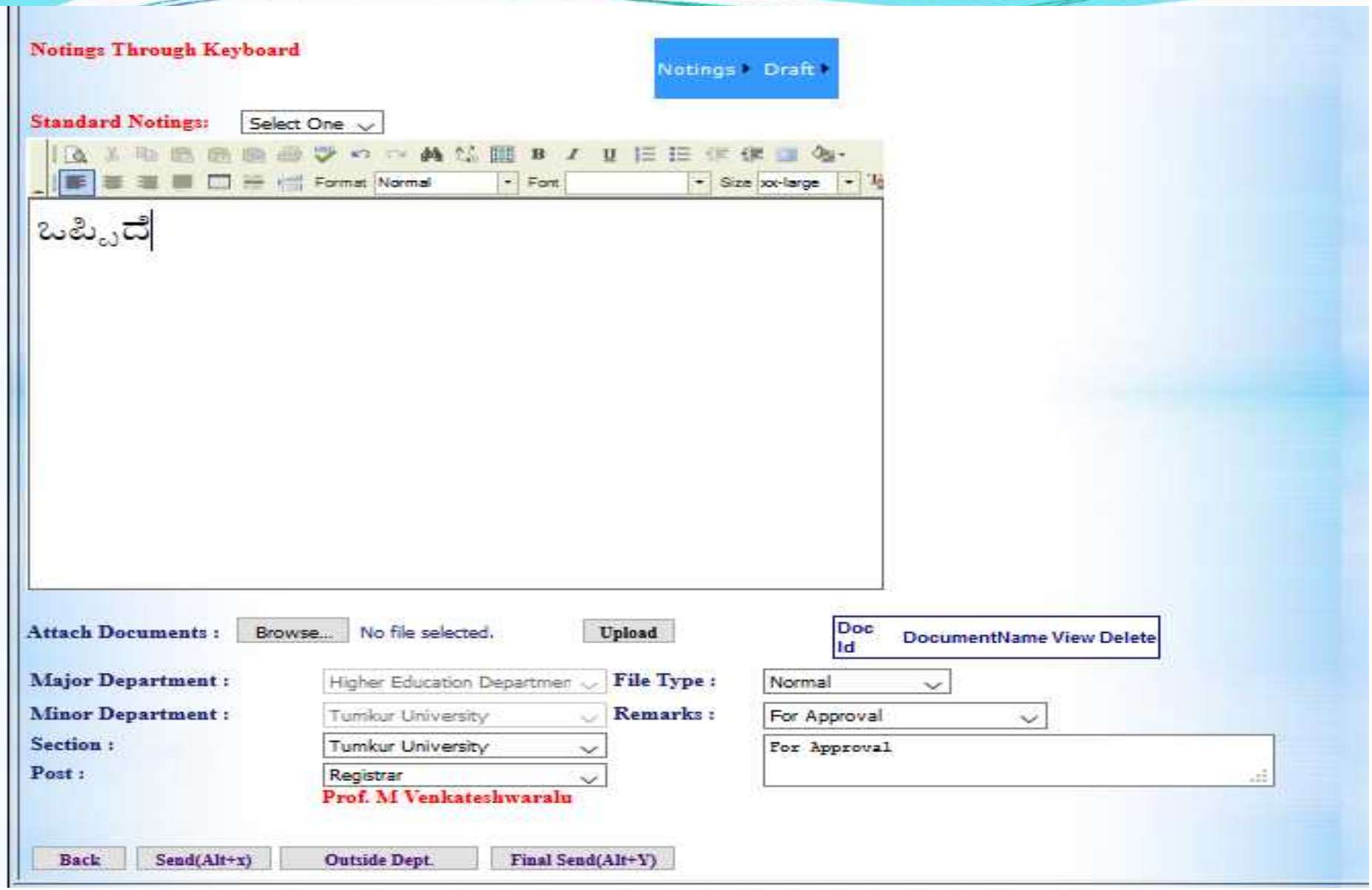
Caseworker Note



Registrar's Note



Vice Chancellor's Note



Note Sheet

Tumkur University

26/07/2016 | Tumkur University >Tumkur University >Registrar | Mr/Mrs. Prof. M Venkateshwaralu (104) | SignOut | Version:1.1

Administrator | Letters | Files | Queries | Reports | Dash Board | Others | CS Dash Board | ODGC

ಕಂ.ಸಂಖ್ಯೆ : 2839 ಕ.ಸಂಖ್ಯೆ : TU122ENGG2016 **ವಿಷಯ: Proposed U.G.D. connection in PG ladies hostel washing area to U.G. ladies hostel front main road at Tumkur University, Tumakuru.**

Asc | All

File Notings: CloseWindow

Scanned Documents

Para No	From Officer	Notings	Document	Draft
1	Junior Engineer Civil 03/05/2016	ತುಮಕೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯದ ಮಹಿಳೆಯರ ಸ್ನಾತಕ ಹಾಗೂ ಸ್ನಾತಕೋತ್ತರ ವಿದ್ಯಾರ್ಥಿ ನಿಲಯದಲ್ಲಿ ಒಳಚರಂಡಿಯ ವ್ಯವಸ್ಥೆಯಲ್ಲಿ ಅಡೆತಡೆ ಉಂಟಾಗಿದ್ದು, ಆಗಾಗೆ ತೊಂದರೆಯಾಗುತ್ತಿರುತ್ತದೆ. ಇದನ್ನು ಸರಿಪಡಿಸಲು ಚೇಂಬರ್ ಗಳನ್ನು ನಿರ್ಮಿಸಬೇಕಾಗಿರುತ್ತದೆ. ಹಾಗೂ ಸ್ನಾತಕೋತ್ತರ ಮಹೆಳೆಯರ ವಿದ್ಯಾರ್ಥಿನಿಲಯದ ಹತ್ತಿರ ಬಟ್ಟೆ ತೊಳೆಯುವ ಜಾಗದಲ್ಲಿಯು ಗಲೀಜು ನೀರು ಹೊರಗಡೆ ಹೋಗದೇ ಅಲ್ಲಿಯೇ ನಿಲ್ಲುತ್ತಿರುತ್ತದೆ. ಇದನ್ನು ಸರಿಪಡಿಸಲು ಹೊಸದಾಗಿ ಪೈಪ್ ಲೈನ್ ಜೋಡಣೆಯ ಅಗತ್ಯವಿರುತ್ತದೆ. ಈ ಕೆಲಸವನ್ನು ನಿರ್ವಹಿಸಲು ಅಂದಾಜು ಪಟ್ಟಿಯನ್ನು ತಯಾರಿಸಲಾಗಿದ್ದು, ಅಂದಾಜು ಪಟ್ಟಿಯನ್ನು 2015-16ರ ಮಂಜೂರಾದ ಲೋಕೋಪಯೋಗಿ ಇವರ ದರಪಟ್ಟಿಯನ್ನು ಅನುಸರಿಸಿ ತಯಾರಿಸಲಾಗಿದ್ದು, ಅಂದಾಜು ಮೊತ್ತ ರೂ. 92,000/- (ರೂಪಾಯಿ ತೊಂಬತ್ತೆರಡು ಸಾವಿರ ಮಾತ್ರ) ಈ ಮೊತ್ತಕ್ಕೆ ಅಡಳಿತಾತ್ಮಕ ಅನುಮೋದನೆ ಹಾಗೂ ಕಾಮಗಾರಿಯನ್ನು ತುಂಡುಗುತ್ತಿಗೆ ಆಧಾರದ ಮೇಲೆ ಕಾರ್ಯನಿರ್ವಹಿಸಲು ಮುಂದಿನ ಆದೇಶ ಕೋರಿ ಕಡತವನ್ನು ಮಂಡಿಸಿದೆ. Normal 0 false false false EN-US X-NONE X-NONE		
2	Deputy Registrar Gen Dev 04/05/2016	02) ಅಡಳಿತಾತ್ಮಕ ಅನುಮೋದನೆ ನೀಡಬಹುದು. Normal 0 false false false EN-US X-NONE X-NONE		
3	Registrar 18/05/2016	03) ಕಂಡಿಕೆ 01 ರನ್ನು ಒಪ್ಪಬಹುದಾಗಿದೆ ಆದೇಶಕ್ಕಾಗಿ		
4	Vice Chancellor 18/05/2016	ಒಪ್ಪಿದೆ.		

Human Resource Management (HRMS)
(for Salary disbursement)

- **Implemented from September 2015.**

- **Employees Pay Bills and Pay Slips are generated through HRMS Software only (developed by E-Governance Department, Govt. of Karnataka).**

164.100.133.105/HRMSUNIVERSITY/HRMS-Reports/frmPayBillGeneration.aspx?Type=PB

DDO :0800UV0001-Finance officer

Human Resource Management System

Department :UV-UNIVERSITIES

Final Pay Bill

*Head Of Account	2202-03-102-0-23-NP
*Month	June
*Year	2016
*Pay Bill No.	05072016000061
Establishment No	1
*From EstNo-ToEstNo	1 - 1

Address Line1	B H Road		
Address Line2	Tumkur University, Tumakuru		
Pin Code	572103	Fax Number	08152270719
Phone Number	08152270715	Mobile Number	9345142321
EMail	tumkuruniversity2004@gmail.com	Ex:	abc@xyz.com,net,com,gov,gov.in,co.in,in

Please select the checkbox if computer or internet facility is available at your office

Computer (•) YES ( ) NO Internet Connection (•) YES ( ) NO

Remarks: Compputer and internet facility is available

Update Clear

Government Of Karnataka

Pay Bill Report For The Month of - June 2016

Department :UV-UNIVERSITIES

Establishment No/Name :1 / Teaching Staff

TAN No:Not Entered FINAL PAY BILL TO BE PRESENTED TO TREASURY

DDO Code: 0800UV0001 Token No: 12345678 Head Of Account: 2202-03-102-0-23-NP (ST) (Voted)

SNO	Employee Name	KGID/Metal No	Basic Pay	Allowances		Gross Salary	Deductions		Recoveries	Total Deductions	Net Salary
1	DR ANNAMMA	00119	44,799	DA 67,249 HRA 5,380 GRADE-PAY 9,000		126,428	IT 10,000 PT 200 LIC 12,769			22,969	103,459
	ASSOCIATE PROFESSOR		Permanent 44,799								
	37400-67000	AG Code:									
	Next Increment Date:	Sep 2016									
	Pay Month : June	2016									
2	DR ASIYA NUZHAT F B	00106	53,397	DA 77,996 HRA 6,240 GRADE-PAY 9,000		146,633	IT 29,000 PT 200 EGIS 240 LIC 1,793 GPF 7,000 KGID 1,500			39,733	106,900
	ASSOCIATE PROFESSOR		Permanent 53,397								
	37400-67000	AG Code:									
	Next Increment Date:	Dec 2016									
	Pay Month : June	2016									
3	DR BASAVARAJA G	00121	43,224	DA 65,280 HRA 5,222 GRADE-PAY 9,000		122,726	IT 12,500 PT 200 LIC 3,884			16,584	106,142
	ASSOCIATE PROFESSOR		Permanent 43,224								
	37400-67000	AG Code:									
	Next Increment Date:	Aug 2016									
	Pay Month : June	2016									
4	DR BRINDA VEERAPPA	00149	52,678	DA 77,098 HRA 6,168 GRADE-PAY 9,000		144,944	IT 22,500 PT 200 EGIS 180			22,880	122,064
	ASSOCIATE PROFESSOR		Permanent 52,678								
	37400-67000	AG Code:									
	Next Increment Date:	Oct 2016									
	Pay Month : June	2016									

TAN No:Not Entered FINAL PAY BILL TO BE PRESENTED TO

Other ICT Initiatives

- **E-proceedings – 71 meeting proceedings (Syndicate, Academic Council, Board of Studies) entered into the system.**
- **Court Case Monitoring System (CCMS) – 66 Cases entered into the system.**
- **Audit Monitoring System – 91 Audit Paras entered into the system.**
- **Asset Monitoring – 100% Assets entered into the system.**
- **Implemented 62 Sakala Services and has bagged the Best Service Award from the Government of Karnataka.**
- **Successfully uploaded statistics (100%) of 2015-16 in All India Survey on Higher Education portal (AISHE)**

Future ICT Plans

- **Faculty Profile Management System – Action is being initiated to develop in-house online e-portal, where the faculties of University can upload their profile.**

- **Smart Classes – Action is being initiated to setup smart classes with Multimedia projectors and ICT infrastructure facilities.**

- **Video Lectures to be recorded and published in the website.**

- **Finance Automation System is being initiated**

THANK YOU

Sikkim Online Admission and Application, RUSA, Human Resource Department ,Sikkim

Online Admission and Application for the State of Sikkim

Rashtriya Uchchatar Shiksha Abhiyaan

Human Resource Development Department
Government of Sikkim

July 2017

Content

- ❑ Background of Online Admission 2016
- ❑Achievement of Online Admission 2016
- ❑Objectives of Mobile Application
- ❑Features and Functionalities
- ❑Application Architecture
- ❑Administrative & Process Reforms
- ❑Community Services & Student Mentoring
- ❑Screenshots
- ❑Media Reports

Background of Online Admission 2016

Features and Functionalities

Prospective student

- Download prospectus
- Apply online
- Select preference for college and course
- Check status and result

HRDD, Govt. of Sikkim

- Set business rules
- Allocate prospective student to college
- Manage enrollments and vacancies
- Publish results

Colleges

- Provide inputs for the business rules
- Set course specific thresholds
- Coordinate with HRDD to manage enrollment and vacancies

Result

- It became a common platform for candidate's to apply for any colleges based on their preference through HRDD web portal
- The admission process was transparent, unbiased, fair, and rules driven
- Grievances and hardships for getting admission in government colleges significantly decreased
- Optimum utilization of intake capacity of all the government colleges was ensured
- It led towards environment friendly paperless process as all the medium of communication was handled via mail

Objectives of Mobile Application.

- It completes the gap between Online Admission System in terms of Infrastructure availability.
- Provide an effective means of using Online Admission System irrespective of time and place.
- Bridge the gap between student and the system.
- Provide a flexible platform where student can use whichever means to communicate with system. i.e. Mobile, Tab
- Provide an effective way for communication between college administration and student using push notification system.
- Provide an effective tool for better understanding of Online Admission System.

Features and Functionalities



Prospective student

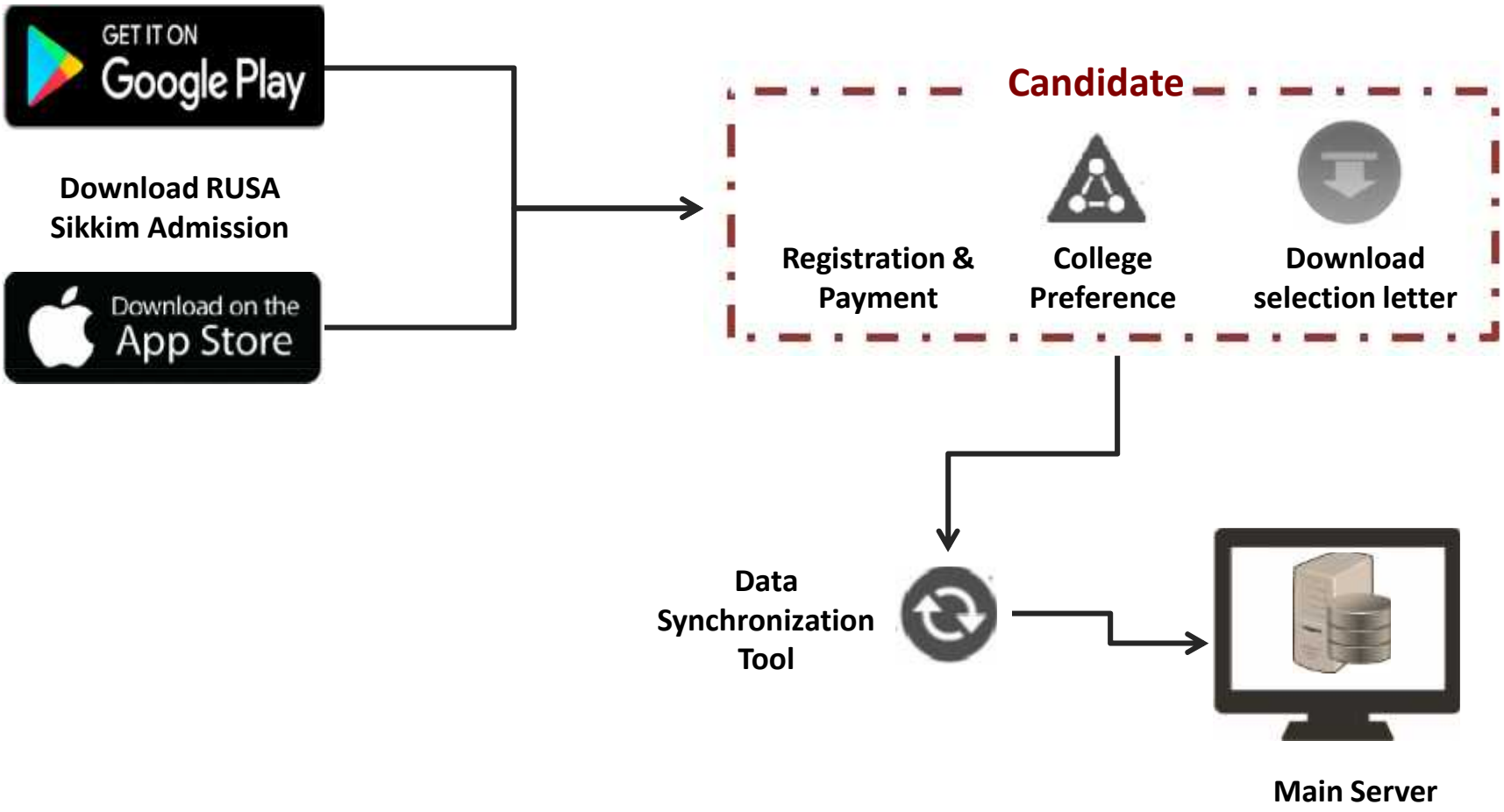
STUDENT REGISTRATION

- Login
- Student Profile
- Educational Qualification Detail
- College Preference
- Confirm Details
- Payment

ADDITIONAL MODULES

- Edit Data
- Push Notification

Application architecture



Administrative & Process Reforms

ADMINISTRATIVE REFORMS

- Decentralized system for autonomous decision making authority.
- Joint Signatory for transparency in fund utilization process.
- Data driven decision making-Online Admission Data.

PROCESS REFORMS

- Implementation of Management Information System (MIS)
- Implementation of Online Admission

Community Services & Student Mentoring

COMMUNITY SERVICES

- Seminar on Changing Roles of Indian Women in Post Independent Indian Society
- Workshop On Environmental Ethics and Responsible Development in Eastern Himalayas
- Workshop on Equity and Gender Sensitization
- Workshop on Gender Equity: Reflections , Discourses and Emerging Issues
- Workshop on Awareness on Sexual Harassment
- Seminar on Equity and Human Rights

STUDENT MENTORING

- Sensitization for Online Admission.
- Remedial Classes for SC, ST, OBC and Women Students.
- Mentoring and Career Counseling for Vocational College.

Digital Education & Teaching Learning Reforms

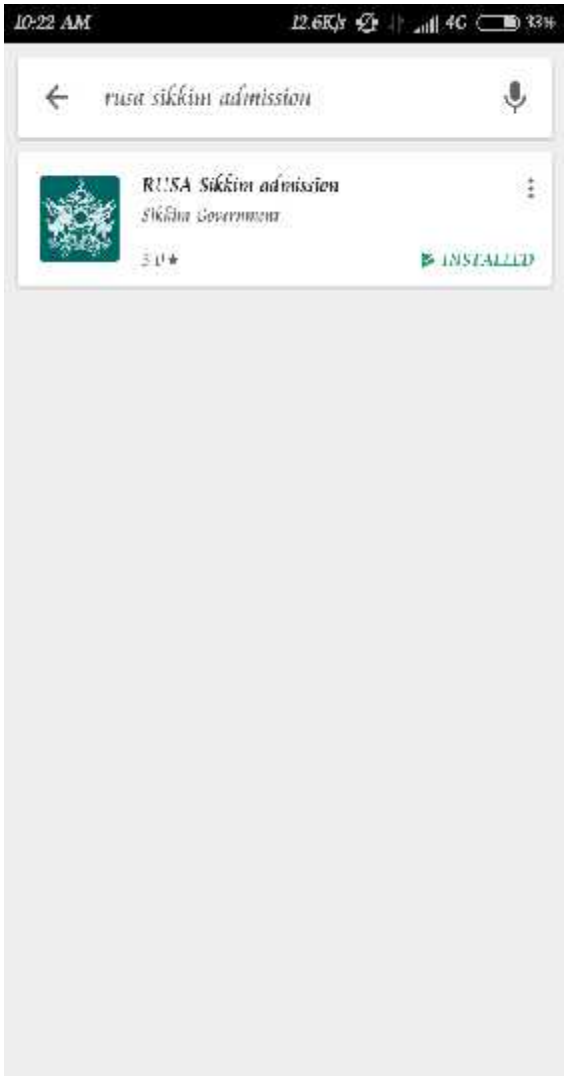
DIGITAL EDUCATION

- Online Admission through Mobile Application
- Smart Class Teaching in all RUSA beneficiary Government Colleges

TEACHING LEARNING REFORMS

- Smart Class Teaching
- Digital Library

Screenshots

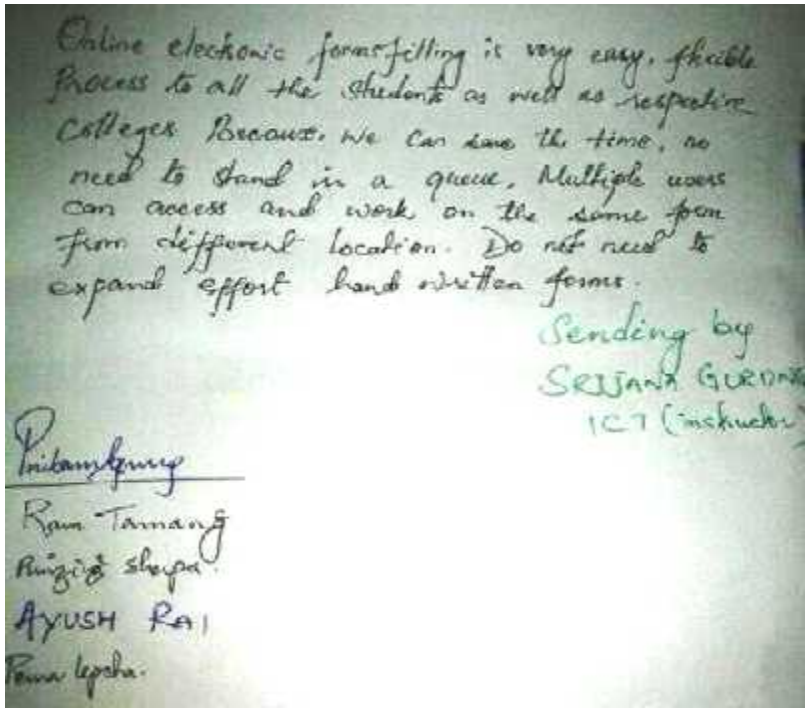


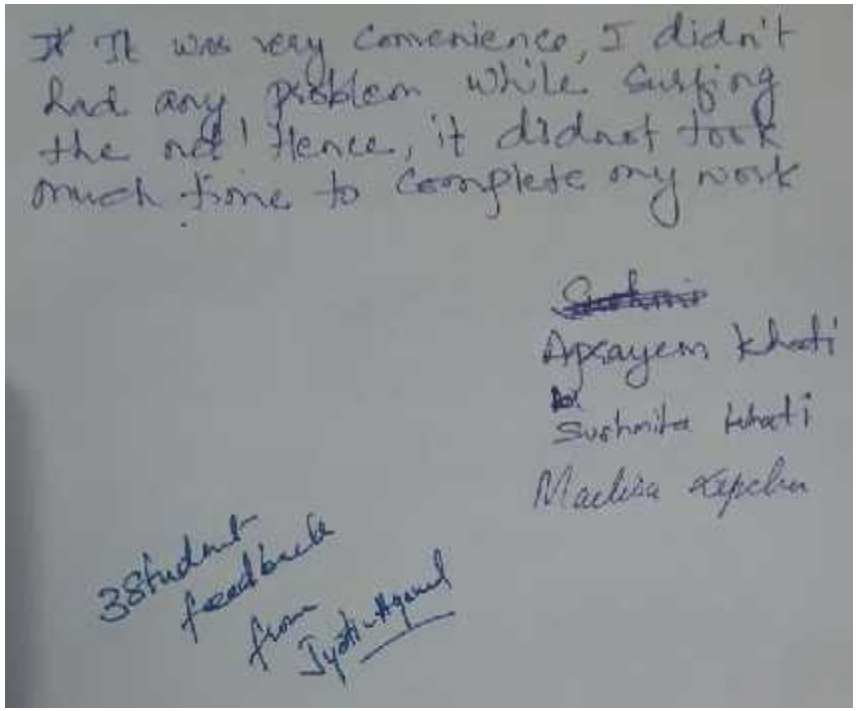




Achievement of Online Admission 2016

Feedback collected from our end users during the admission 2016.





Looking at the SUCCESS AND EFFECTIVENESS of online admission in the year 2016 the Department decided to develop the Mobile Application for Admission 2017.

Media Reports

Mobile app launched for admission to 11 govt colleges

DICHEN ONGMU

GANGTOK, June 2: Students seeking admission in State run colleges in Sikkim can now do so with the help of a mobile application. HRD minister R.B. Subba launched the Sikkim government college registration and admission mobile application RUSA Sikkim at HRD conference hall here today. The app, developed by Gangtok based SiBIN group, is available for free download on both Android and iOS mobile devices.

Student seeking admission in 11 government colleges, including the new vocational college at Dentam, Arts College at Mangshila and Women Arts College at Khamdong, can download the app and register with the requisite details to apply for the college and course of their choice online. There are 11 government colleges including a B.Ed



college at Sorong and law college at Burtuk, Gangtok.

The application, developed under the Rastriya Uechatar Shikshya Abhiya (RUSA), has been launched to eliminate issues like improper infrastructure in some places, poor mobility, less system availability and real notification gap. It will also help the students increase their knowledge about the online admission system, officials informs.

Minister Subba while congratulating the department and app developer said, "I hope through the app will address the shortcomings and our visibility will be felt in the digital world." He also expressed his happiness regarding the performance and results of Sikkim students in both CBSE and ISC boards.

HRD higher education director Deepak Pradhan highlighted the importance of the app and informed that all information about the admission will be available in the app. It is a user friendly app and can be accessed easily by the students, he said.

Health advisor Dr. A.D. Subba and other HRD officials were also present during the programme.

Summit TIMES

gtok | Saturday | 03 June 2017 — ON TOP OF THE NEWS — RNI No. SIKENG/2016/69420

HRDD launches mobile app for online admission to govt colleges

SAGAR CHETTRI
Gangtok, 02 June



The Human Resource Development Department has launched a mobile application in order to make the Online Admission System in Sikkim government colleges more accessible for students.

HRDD Minister, RB Subba, officially launched a mobile app 'RUSA Sikkim Admission' here at the HRDD conference hall today. According to the Department, this is the first such mobile app in the country.

It has to be mentioned here that the HRDD started Online Admission System for all government colleges last year. The mobile app will help students across the Online Admission System irrespective of time and place. However, students can also visit www.sgregistration.com for registration and further details.

The app seeks to bridge the gap between students and the system and to provide a flexible platform where students can use whichever means to communicate with the system, to provide an effective way for communication between college administration and students using push notification system and to provide an effective tool for better understanding of Online Admission System.

In his short address, HRDD Minister expressed hope that the mobile app will help overcome shortcomings related to the online admission system. He also mentioned about other endeavours of the HRDD to provide better platform and exposure to students in various fields.

'Director [Higher Education-HRDD], Deepak Pradhan, mentioned that the mobile app is very user friendly and will help the students to fill the forms on time. He added that the app has all the required information and system for online admission.

A representative from SiBin Group gave a presentation on the app and spoke about the objectives, key modules and other details related to the app.

Link : https://www.facebook.com/thesikkimchronicle/videos/1826748044311036/

THANK YOU

Kurukshetra University,Kurukshetra

ICT INTIATIVES UNDER RUSA

KURUKSHETRA UNIVERSITY
KURUKSHETRA

AREAS COVERED



- DATA MANAGEMENT SYSTEM
- WI FI STRENGTHENING
- RESEARCH LABS
- COMPUTER CENTRE FOR GIRL STUDENTS
- ONLINE SECURITY MONTORING
- SMART CLASS ROOMS
- COMPUTER LABS





RESEARCH LABS

- Latest software have been acquired for research labs in different disciplines to support their research initiatives. A few are-
- IBM SPSS- statistics, commerce
- Visual Studio academic- Statistics
- Erdos Imagine- Geography
- UTM/Firewall- University WiFi
- Cadence Design tool (perpetual access)- Electronics
- Origin Lab Professional version 2016 (Environment Science)
- Winglink- Geophysics
- Pro-simulation, Automation studio (5.7-6) –Instrumentation
- Windows 10, Total security, Anti virus and MS office 2016

SMART CLASS ROOMS

- 45 smart class rooms have been created in different disciplines with multimedia projectors and related accessories like screens and mounting kits.
- Intelligent podiums are to be added in second phase students.
- Civil works are also in process to create a fine ambience for these rooms
- This is improving quality of knowledge transfer and lecture delivery and students are also learning the use of new techniques in a better environment

WI FI STRENGTHENING

- The existing Wi-Fi of university has been upgraded to cover more areas
- To provide secure network, give user id based access (Unified Threat Management UTM/Firewall)
- This has made a visible different in the speed and quality of internet access experience for both class room teaching and research.

COMPUTER CENTRE FOR GIRL STUDENTS

- A unique initiative to give a fully air-conditioned three storey facility to girl students with gymnasium on one floor, reading room on second and computer centre on third within girls hostel premises.
- The computer centre is planned within girls hostel complex housing around 3000 girls.
- The proximity to hostels will provide easy, secure and long hours of access
- The centre will provide desktops as well as high speed Wi-Fi to be used for personal laptops

DATA BASED SYSTEM

- A data based system of the students is to be created that will capture information of student cycle
- Its content requirements have been identified and process to carry it forward is on
- This will be used for different purposes and at different points of time as required.
- This is aimed at helping fast access of records to university as well as students

MONITORING AND EVALUATION

- A robust process based system exists for monitoring of RUSA activities through RUSA committee
- All purchases are made after inviting requisitions from different departments followed by consultations with RUSA committee. Particularly all ICT initiatives at the university have been user department centric
- Student feedback is used for evaluation of proper usage and benefits of the upgrades of labs and classrooms at the user department level

OTHER INITIATIVES OF THE UNIVERSITY HALLMARKS

- Administrative reforms
  - University follows a democratic system of decision making in a bottom up fashion where autonomous departments take call on their activities that is routed to higher bodies for broad based consultations
- Process reforms
  - University has started using email and SMS as a medium of internal and external communication. Digitization of examination and student services are main areas where major changes have been initiated. University encourages girl students through its programme ' Shikshit Beti Swasth Beti' with focus on healthy mind and healthy body.
- Teaching- Learning reforms
  - Teaching methods are continuously updated as per subject requirements and new developments in various fields. Practical experience of projects, training and field work is fairly balanced with simulation, role playing, case methods and classrooms teaching in traditional as well as modern format using ICT.
- Digital initiatives
  - Online admissions, online fee management system and online communication is already active in the university and the job of a comprehensive Student Information System for examination is on

OTHER INITIATIVES OF THE UNIVERSITY HALLMARKS

- Community services
  - Five villages have been adopted for development where volunteers work to bring the social change. Additionally social work students also work in villages to bring suitable interventions
- Student mentoring
  - Students are mentored through a system of effective teaching, learning and evaluation. The coaching centre, placement services and Counseling services of the university take care of different student needs
- Research initiatives
  - An office of Dean, Research and development co-ordinates all research activities that encourages consultancy work and collaboration with outside organization that has yielded concrete results in the form of cited publications and MOUs with different organizations.
- Innovation initiatives
  - University has on its agenda preservation of heritage and history of Haryana and has come up with a heritage and Archeological museum 'Dharohar' to educate young generation about past and move into future. This has become popular with general public too.



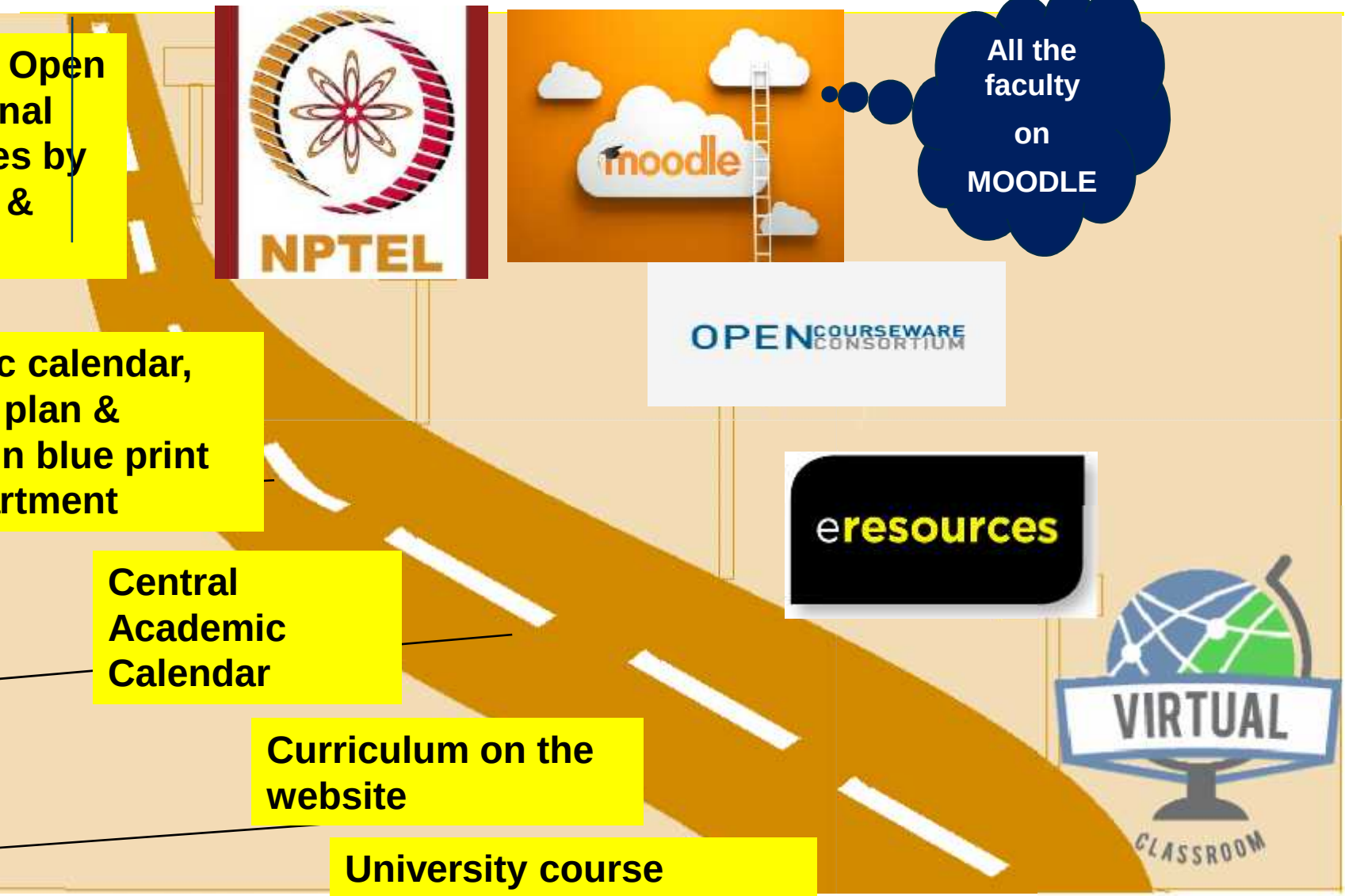
Digital Initiatives at Shivaji University, Kolhapur

Professor Devanand Shinde

Vice Chancellor, Shivaji University, Kolhapur



ning-Learning: Bridging the gap between Digital Born & Digital Immigr



- Internet Hall wi nodes
- 350 to 400 stud taking benefit o hall daily
- Digitization of P Thesis from the establishment o University till da been completed Thesis are avail the soft copy fo
- Access to a goo number of E-jou through INFLIB
- E-books procure made available proxy server
- Teaching faculty encouraged to u internet resourc teaching, which resources availa NPTEL site.

al Infrastructure

x 7 internet connectivity with Wi-fi facility

npus-wide computer network of around 3300+ nodes

er optic backbone Approx. 23 km.

Mbps leased line + 1 GBPS Leased line under NKN

wall: 'WATCH GUARD 2050A'

bsite with more than 300 pages of exhaustive information

licated mobile Apps for specific tasks.

npus wide Antivirus console

dents & employee attendance through Bio-metric Machine.

CCTV camera system for campus surveillance.

tops to all University faculty members and Class-I officers.

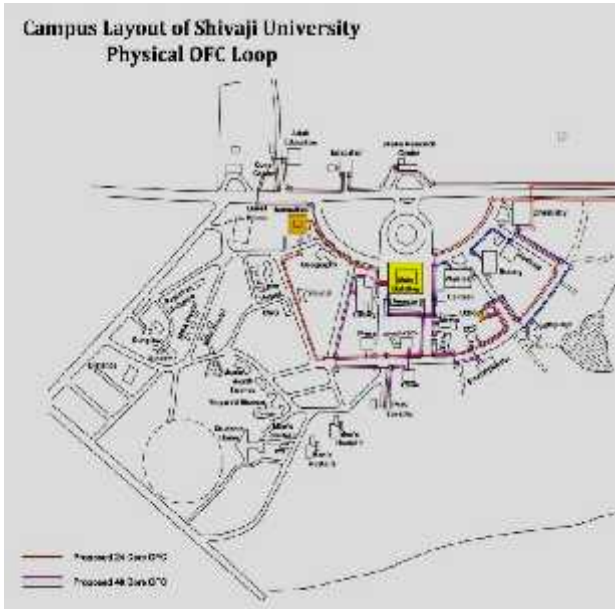
eo Conferencing (make Life Size) for meeting & training.

i zones in every academic Department and service area

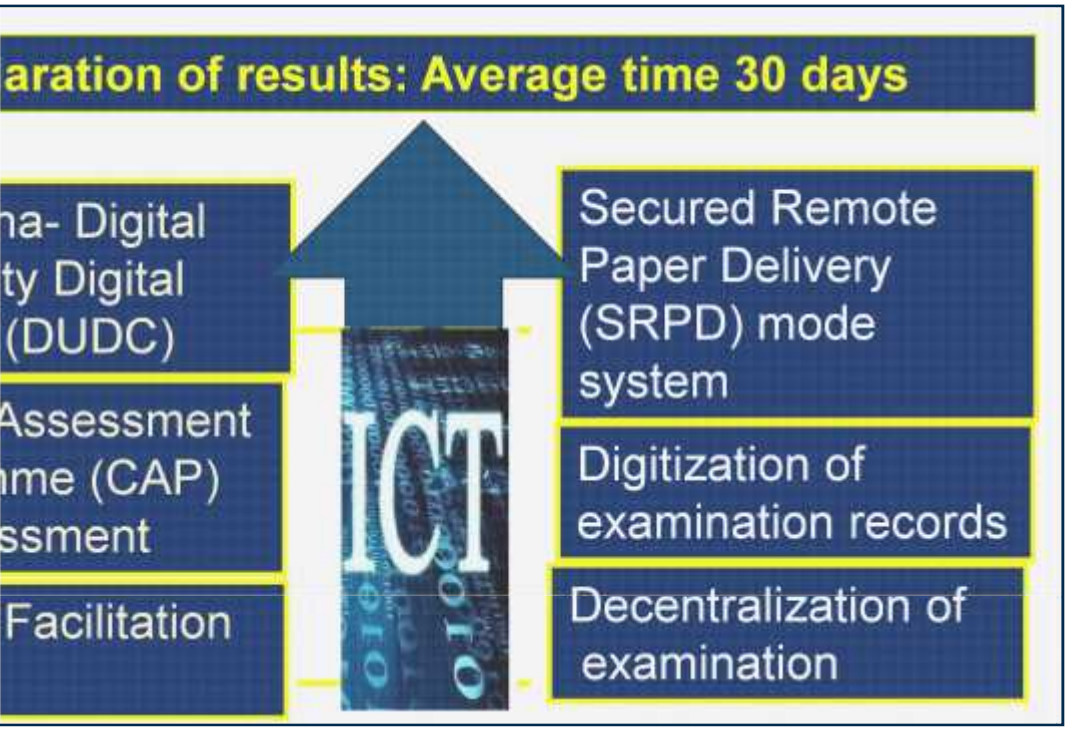
te of Art data centre to cater the IT needs

pped with Virtual environment (VMWare), Blade/Rack servers, /Unified storage, HP Core Switch, HP/Cisco Routers.





ation through Digital Means



al Transactions through SFC

ription	Time of issue	Number per year
-sheet	1 day	14423
um of Instructions	1 day	148
sfer Certificate / Migration icate	1 day	7299
ng Certificate	1 day	1528
cation of Documents	1 day	4152
tation of Documents	1 day	1217
scripts	8 days	531

- Digitization of the mark sheet ledge
- Soft copy of the marks sheet made available to the students.
- Question papers for term end exami are sent through secure email to all affiliated colleges and PG Departme
- A digital staff module for acquiring d teachers and examiners and appoint for examinations
- Appointment letters through e-mails
- Secured Remote Paper Delivery (SR system in place for over 3500 exam
- Convocation intimation through ema sms gateway
- Scanning of answer sheets and on s evaluation
- MoU with CSDL, result sheets, degre certificates available through D-Mat system.

less Transactions by Finance and Accounts Section

y Computerized Finance and accounts system

ancial transactions through online mode
ough campus network.

ments from the students accepted online

ments to the vendors through RTGS.

ine Budget preparation and Re-appropriation

ployee Corner: Personal Information, Payslip,
ome Tax saving details, 16A Form of employee
igital format.

ine Seminar, Workshop Registration with
ment gateway creating login and issuing
tificates with digital signature.

s received from colleges and students by
FT, Cheques, Bank Deposit, and by POS at
versity Counters.

% payment of TA/DA made by online transfer

% online enrolment for Election online



alized Communication by General Administration

endas of authorities and bodies (Academic Council, ulty, Management council, Finance and Accounts mittee, Senate etc.) through email only

etings conducted using IT facilities

ine Student's feedback system

ine Sales of University published books

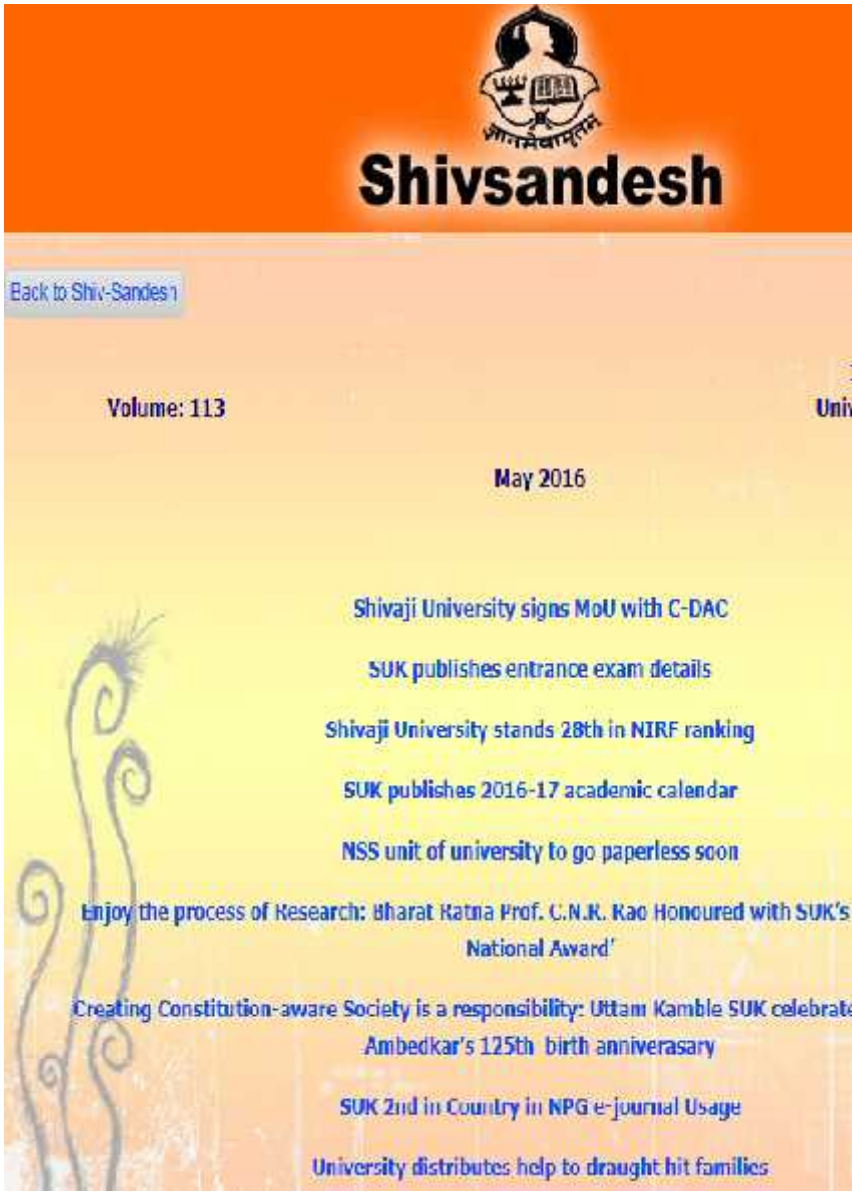
versity has issued/generated certificates in digital m to the participants and created best practice vards a paperless office.

ine recruitment portal

nagazine Shivsandesh and a blog to disseminate rmation everyday

endering portal

54 thesis uploaded on Shodhganga



tization and Guidance to Masses at Large

er UGC MHRD Vittiya Saksharta Abhiyan (VISAKA), hless Volunteers training in 18 Talukas in Sangali Satara Kolhapur Districts.

volunteers trained and each volunteer further trained 0 trainers

nd 60000 families approached by these trainers leading gital literacy of around 2.40 lakhs population

k long Digital Saksharata Shibir by Department of tronics with NSS: 600 families trained in cashless sactions, 450 families digital locker were opened

el Digital Village Project: Yelvan Jugai Village in the huwadi Taluka

ect includes complete digitzation of the daily activites in village that includes installation of Wi-Fi access points, ing cashless transactions etc.

project is shortlisted under the NASSCOM 10,000 tup mission.

onal Mission for Manuscripts (NMM) initiated Manuscript urce Centre under the Ministry of Culture. Till date, ve 10000+ manuscripts in Modi and Sanskrit language documented and hosted on NMM website



Digital Literacy Campaign in a vi



ing the Expertise

of the faculty (Dr. R.K. Kamat) Chairing state level mittee constituted by RUSA and working with Industry erts Srinivas Garimella (Microsoft), Burges Cooper (E &Y a), Vinayak Godse (Data Security Council), Mr. Yadav SSCOM) along with Ms. Meeta. Rajivlochan, Director SPD A

mittee has finalized four credit specialized courses in Cyber urity, One Credit general course for all the students under S and faculty development programs

ed MoU with Google for training in Android based Mobile ication Development and with CDAC for Academic and earch Development, faculty exchange and Student Internship

ated collaboration with NASSCOM and Dewang Mehta ndation Trust and hosted the Dewang Mehta Memorial ure and Felicitation of toppers from Kolhapur, Sangli and ra districts.

ated ICT Training for Visually Impaired Students (Jaws ware)

ated spoken tutorials with IIT Mumbai



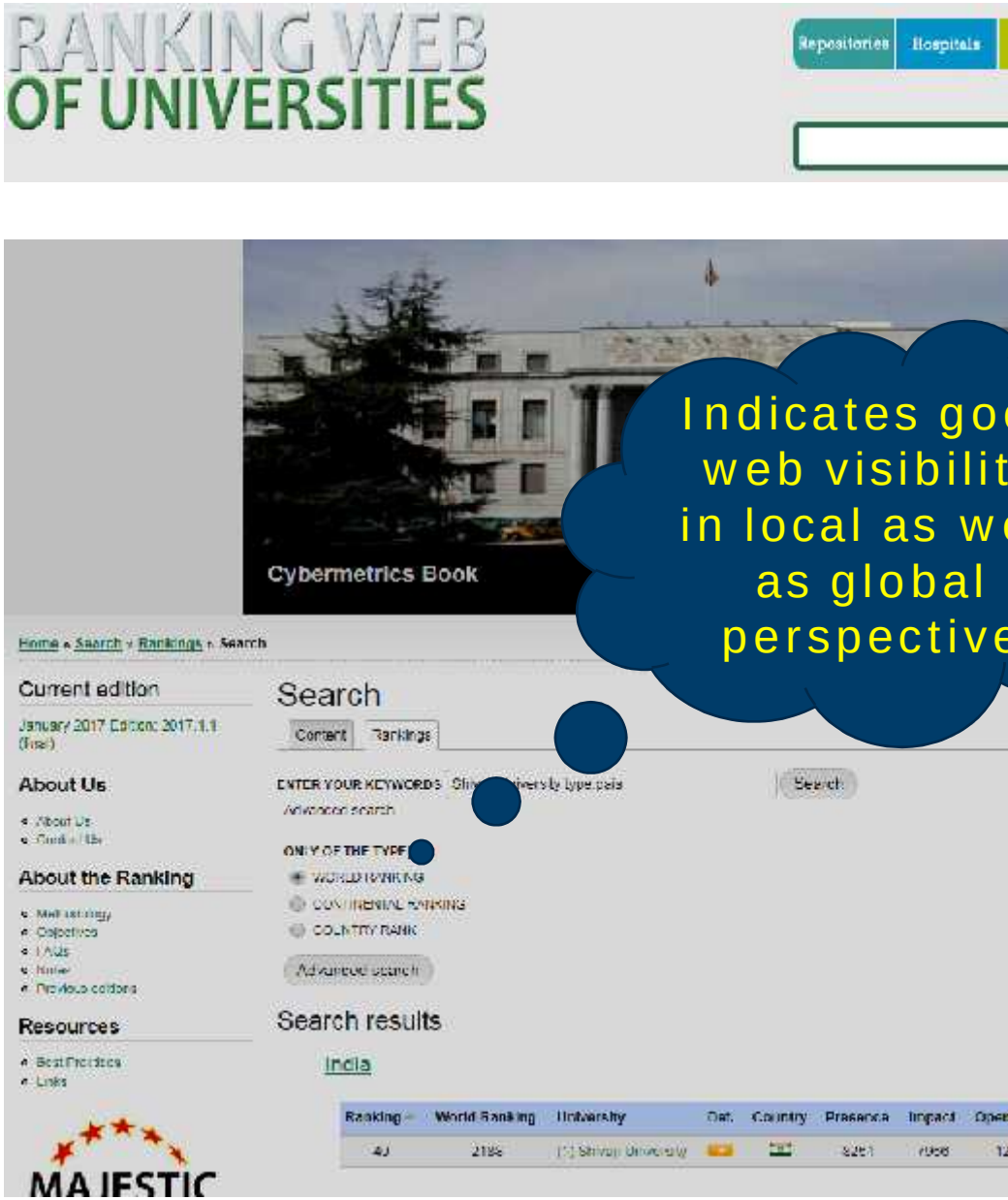


सी डैक
CDAC

NAS
National Assoc
and Servic

ome

- ening of 2000+ Digital Lockers by students citizens under ‘Digital India’ celebrations
- net Digital library consortium (INFLIBNET) rt reveals SUK stands second in use of ure publications group’s (NPG) e-journal ge in the country
- nds amongst top 10 in usage of e-urces
- a Center in place
- pus connectivity through Optical Fiber
- colleges connected through NKN
- ual Classroom and Smart Classrooms in e
- ntory control system of Self Instructional erial (SIM) worth 4 Cr.
- hasis on cashless transactions & payment way
- tal literacy to 2.40 lakh population under AKA scheme



Thanks



Special Thanks to DST, UGC, RUSA for funding us to build
state of art Digital Infrastructure

Utkal University , Odisha



A NAAC A+ ACCREDITED UNIVERSITY

RTUAL TUTORIALS – A PLATFORM TO SERVE UNSERVED AN UNDERSERVED AREAS OF ODISHA

SUPPORTED BY RUSA (MHRD) AND GOVT. OF ODISHA

Context & Relevance

- In view of introduction of CBCS at all UG colleges of Odis and to bridge the gap in faculty recruitment, there is need for virtual classes to be created in tutorial mode.
- Urgent need to create a platform for establishing learni equity amongst tribal students of Odisha across disciplin and across Universities at UG level
- Creation of a Platform for familiarisation with Skill a Laboratory work.
- The medium of the supplementary material to be bilingu for better understanding
- Universities are the best place to create this

Objective

To create a platform for establishing learning equity among
ribal students of Odisha across disciplines and acro
Universities through a digital Tutorial mechanism. Three maj
elements of intervention are :

Phase I : Digital content in UG (+3) arts, Science Commerce
be made available in memory cards and distributed to th
ribal colleges

Phase II : The learning made interactive through internet
easing a dedicated line

Phase III : Digital Content in Skill Commensurate with differe
knowledge levels at the university

Work Elements

Video lectures for BA, B.Sc., B.Com. (Three Year General Degree Course) are prepared under this project and supplied to students in a SD Card.

The students can access the multimedia lesson through smart phones, Tablet, Phablets, desktops and laptops etc.

The B.A Component is in Odia Medium.

The tribal students located in remote area are the principal beneficiaries.

Under RUSA Grant of Five Crores Rupees has been sanctioned to Utkal University and 2.5 Crores has been released.

The recording-editing studio has been established. Contents are being recorded and few have been released.

Work Elements

This is a joint initiative for and by Five major Universities of Odisha intending to cater to needs of a large number of students studying in remote colleges. Non Profit Scheme.

It is developed as a supplement to classroom teaching and not as a means of replacing traditional way of teaching.

It is kept simple enough for weaker students to grasp.

Lectures for Arts stream are in Odia and that for Commerce and Science are in Semi Bilingual Mode

It targets CBCS curriculum in phase I.

Being a joint effort by MHRD and State Govt. of Odisha, it is also aimed to cross the knowledge and skill boundaries in later phases.

What has been accomplished so far?

- A Recording and editing Studio has been established and equipped for recording and Editing video lectures.
- Nearly 150 lectures out of targeted 3000 lectures (BA, B. Com, B.Sc.; 6 Semesters) have been recorded so far.
- Lectures are being stored in 16 GB SD Cards for distribution and utilisation to be effective in both static and interactive mode
- Few sample lectures have been uploaded on our website:

http://www.ddceutkal.ac.in/vtp.asp

Road Ahead

- Bandwidth and cloud storage to be hired for Live streaming of video Lectures
- For Practical in Science, laboratory demonstration is to be provided online which students may learn and repeat in lab physically
- One more studio to be equipped for conducting interactive sessions, webinars, Viva-Voce etc.
- Providing Certification in skilled courses like Computer Security, Android Application development etc.
- Impact assessment and mid course correction protocols are to be put in place
- First phase in BA and B.Com will be distributed by October, 17









Glimpses of the Established Studio-I









Glimpses of the Established Studio-II









Lectures in progress


Thank You

University of Mysore , Karnataka

UNIVERSITY OF MYSORE
ESTD-1916

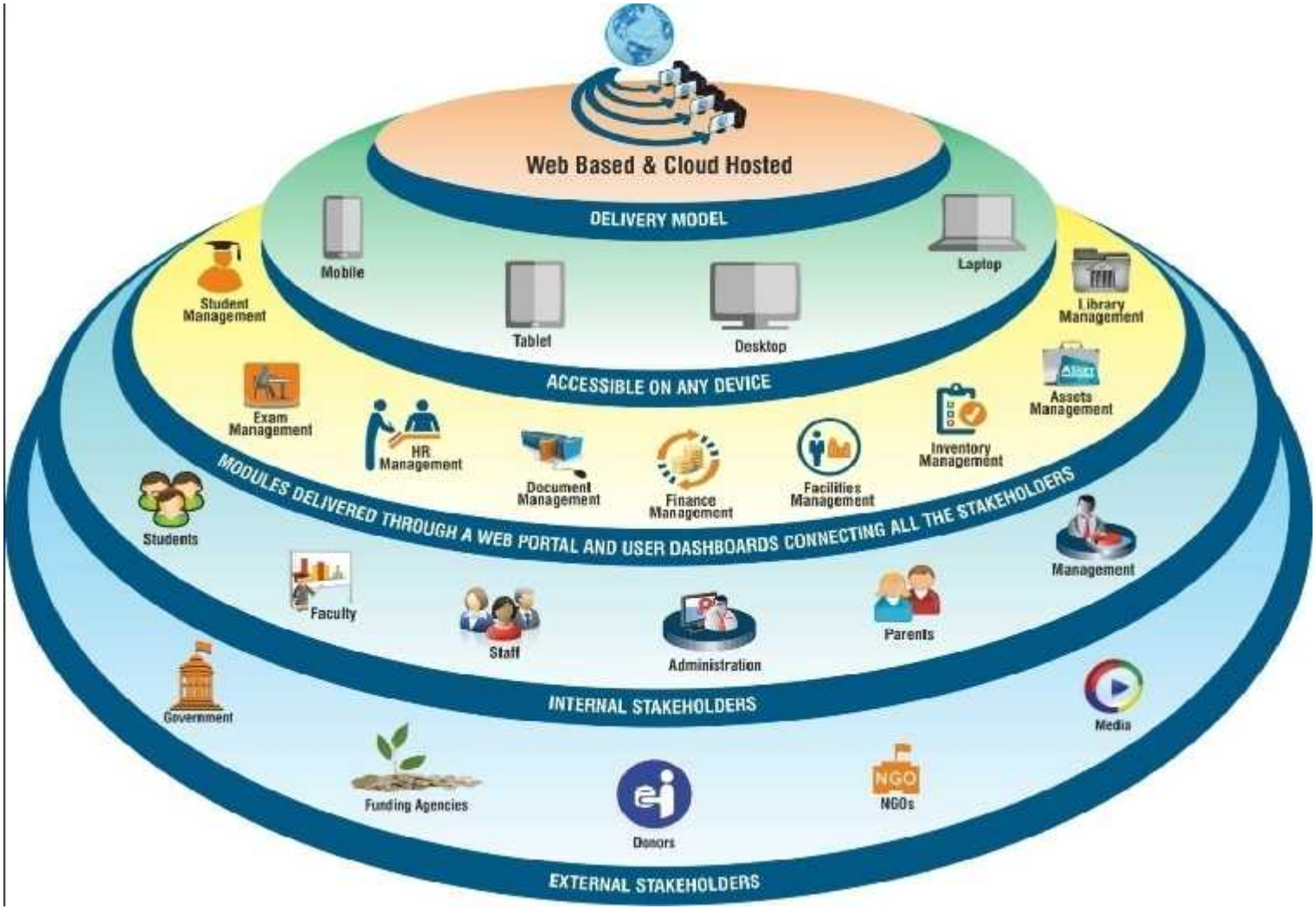
Digital Innovation:

The E-Governance System @ University of Mysore



UoM e-Governance Solution

THE E-GOVERNANCE SOLUTION FOR UoM



UoM e-Governance Solution

LIST OF E-GOVERNANCE MODULES

1. Document Management System
2. Student Management System
3. Finance Management System
4. PhD Management
5. HRMS
6. Online PG Entrance and Admissions Application Management
7. CBCS Management

UoM e-Governance Solution

Document Management System

Key Features

- Digitization of Tappals/Documents
- Transfer of Tappals / Documents
- Document Processing
- Precedence Management
- Metadata & Disciplinary Support
- Alerts & Reports
- Security, Backup & Disaster Management



Key Reports

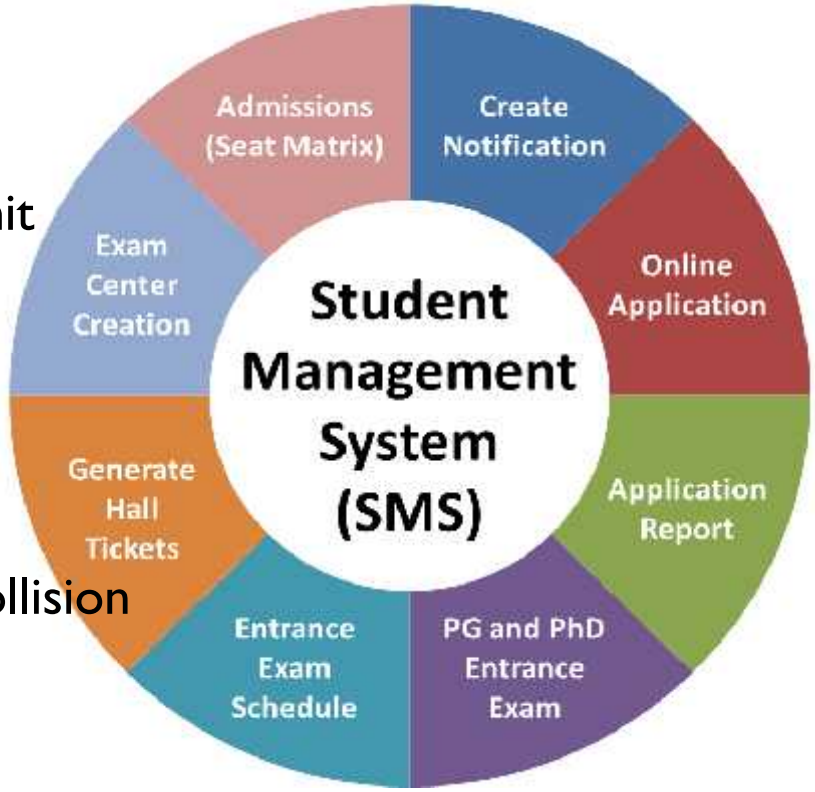
- Tappals Report by Tappals Type and Dates
- Cases Report By Caseworker and Case Type
- Graphical, Employee Activity, Statutory Documents Report

UoM e-Governance Solution

ONLINE PG ENTRANCE EXAMINATION

Key Features:

- Create Entrance Exam Notification
- Online Application Create/Edit/Submit
- Application Scrutiny
- Entrance Exam Fee payment
- Generate Hall tickets
- Entrance Exam Schedules without collision
- Alerts/ SMS Feature
- Reports (Course wise Students)



UoM e-Governance Solution

ONLINE PG ADMISSIONS MANAGEMENT

Features:

- Login Credentials
- View PG Applications & Admissions List
- View Seat Matrix with Consolidated Report
- Allotted Seats List
- Selected Students Report
- Waiting Students Report
- Disabled Students Report
- Special Categories Report

UoM e-Governance Solution

FINANCE MANAGEMENT

Key Features:

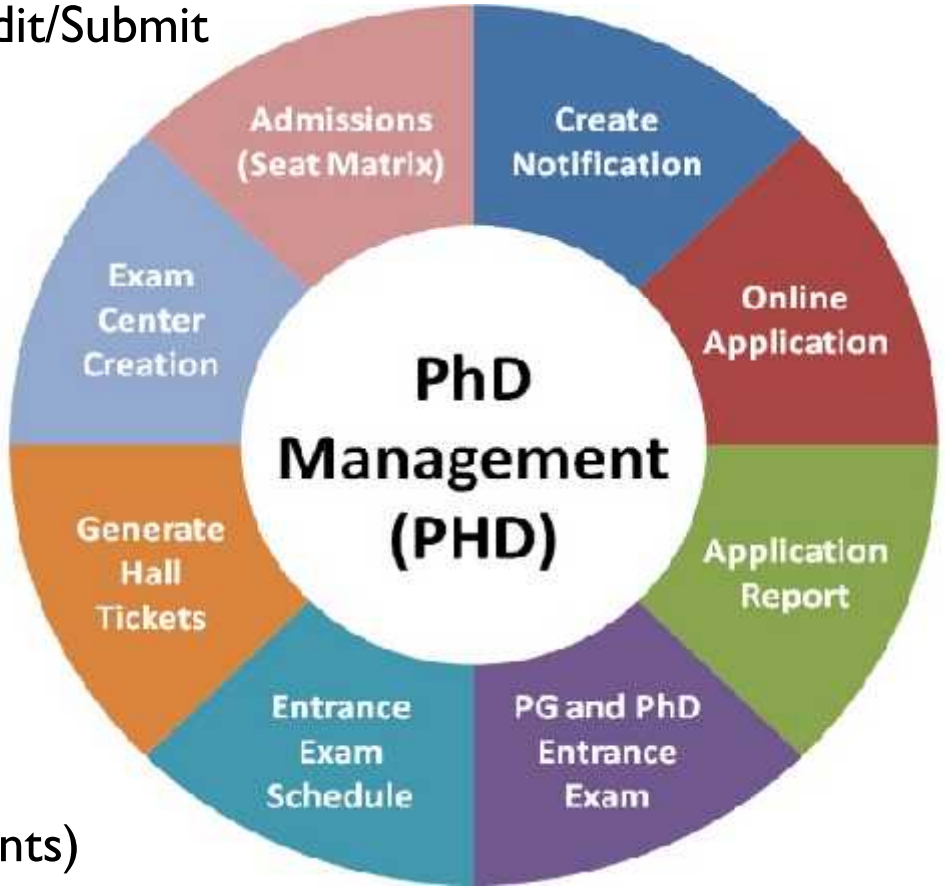
- Create Account Groups
- Chart of Accounts
- Post General Ledger
- Transaction Entries
- Project Creation/Tracking
- Create/Plan Budgets
- Trial Balance
- Income & Expenses
- Balance Sheet
- Cheque Generation



UoM e-Governance Solution

Ph.D MANAGEMENT

- Create Entrance Exam Notification
- Online Application Create/Edit/Submit
- Application Scrutiny
- Entrance Exam Fee payment
- Generate Hall tickets
- Entrance Exam Schedules without collision
- Scribe Selection
- Assign Scribes to Students
- Alerts/ SMS Feature
- Reports (Course wise Students)



Examination System

- Introduction of Examination Management System (EMSEntrance Exam Fee payment
- Central Evaluation System
- CCTV at Evaluation Centers
- Introduction of Anti-Plagiarism Software (TURNITIN) for Per-submission of doctoral theses.
- Introduction of online evaluation and examination system

Thank you

Kolhan University , Jharkhand

REFORMS & INNOVATIONS

In Higher Education of Jharkhand

- Academic & Administrative Process Reforms
- Teaching Learning Reforms & Digital Initiatives
- Community Services
- Student Mentoring
- Research & innovation Initiatives

KOLHAN UNIVERSITY

CHAIBASA, WEST SINGHBHUM, JHARKHAND

Teaching Learning Reforms by Digital Initiatives

Video Enabled Virtual Classroom System

Digital Language Lab

Video Enabled Virtual Classroom System

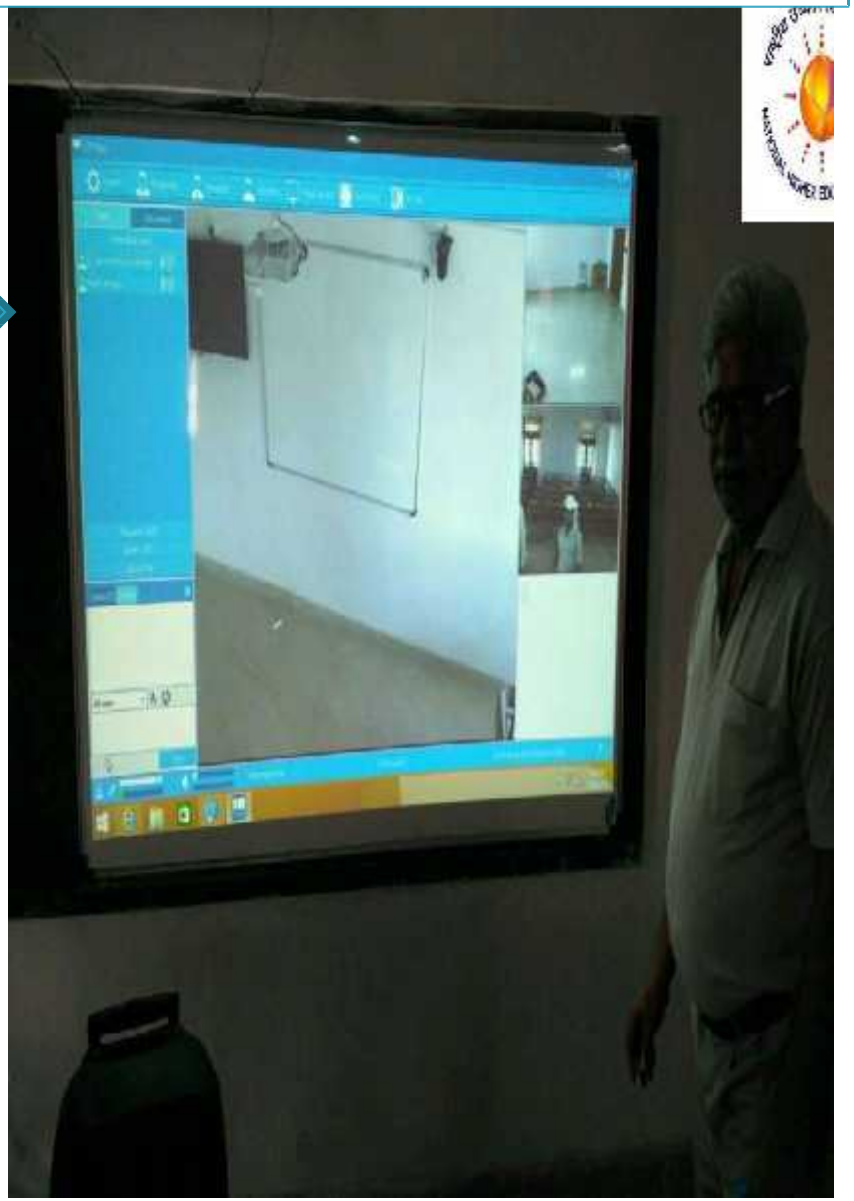
- Video enabled virtual classroom system is an internet supported real time classroom system adjoining all 15 constituent colleges under Kolhan University with main location in the University.
- Connecting 15 Virtual Classroom Systems established in Colleges with shared IP addresses, it has been possible to deliver lecturers by l faculty members of the University & invited resource persons from different domain areas. The interaction among students from their respective colleges with these learned persons is also possible in the same time.
- The lectures can be recorded and saved for future use. It also adds to the intellectual property of the University.

Importance of the Video Enabled Virtual Classroom System in our University

- Ensuring the quality education to all stakeholders in equal manner.
- Defeating the lack of adequate number of faculty members.
- More than 81000 (eighty thousand) enrolled students are being benefitted by this initiative directly (Constituent Colleges) or indirectly (Affiliated Colleges).
- Timely completion of the syllabus; as the CBCS system has been adopted.
- Creating academic reservoir for the slow learners and students who are unable to attend regular classes due to their inhabitants in interior rural and tribal areas.
- It is also possible to connect our students with learned faculty members from other top universities in India by expanding its geographical area.
- Properand regular monitoring of the teaching-learning process may be centrally assured.
- Caters the students from Jharkhand, West Bengal, Orisa & Bihar & covers the at least two constituency in Jharkhand directly.
- Funding has been done by RUSA under component 3 as Infrastructure grants to the Universities.The total costing of the project including training to the faculty members, 3 year warranty and 2 years extended service & maintenance support is Rs. 1,44,44,685.00 (One Crore forty four lacs forty four thousand six hundred eighty five only). The project was completed within 03 months.

Main Location at University connected with G.C.Jain Commerce College as beneficiary





Digital Language Lab under equity initiative of RUSA

- Digital Language Lab has been established in Ghatsila College, Jharkhand which is a constituent unit of Kolhan University. Gross Enrolment Ratio of the students specially tribal girls students (About 11000) is maximum in this college. Which is very significant feature.
- The University has decided to strengthen the tribal girls by reducing drop- outs and checking human trafficking through this initiative. Digital Language Lab is strengthening their English speaking and boosting up their confidence. They are being enabled to get jobs in their own cities as well as in neighbour cities & states also. Hence, the University has become successful to make doubled the GER of tribal girls in this college along with some other women colleges.
- We are also enrolling the tribal girls passed out from KASTOORBA SCHOOLS with the cooperation of district administration to reduce drop-outs and trafficking simultaneously. The strengthening communication skill and increasing confidence is making them economically independent.

Digital Language Lab & the beneficiaries



Community Services

- **Active NSS units in all constituent & affiliated regularly involved in different awareness programmes like Blood donation campaign, Aids awareness rallies, Cashless Mission etc.**

- **NCC Units are grooming overall personality of the students and serving the society.**

- **Introduced Certificate course in Marshal Art in all Women's Colleges under the University to empower them.**

- **The University has undertaken Social Impact Study of 05 Govt. projects and Social Impact Assessment of 12 Govt. projects.**

Student Mentoring

- **Help Desks in colleges to counsel the tribal & rural area students for online admission process.**
- **Active Placement Cell in university and in all constituent colleges to ensure the employability of our stakeholders**
- **Remedial Coaching Classes for SC-ST students for preparation of various competitive exams.**

Research & Innovations

- **Total 07 Science laboratories of PG departments in the University have been upgraded through RUSA grant amounting abut 1.5 Crores to ensure & promote the top class research works.**
- **Research Journals are being subscribed and published by the university also.**
- **The Botany department scholar has recently completed his research on Tribal medicinal Plant, which would be helpful to our government also.**

THANKING YOU ALL

Prof. (Dr.) Shukla Mahanty
The Vice-Chancellor



KOLHAN UNIVERSITY, CHAIBASA, JHARKHAND

Bharathiar University , Tamilnadu

National Convention on Digital Initiatives

BHARATHIAR UNIVERSITY



www.b-u.ac.in



Contents

1. Administration Reforms
2. Process Reforms
3. Teaching Learning Reforms
4. Digital Initiatives
5. Community Services
6. Research and Innovation Initiatives
7. Digital Education

Administration Reforms

- **Finance Office Automation** - Finance section of the University is computerised

- **Informative Website** - www.b-u.ac.in - up-to-date, User friendly

- **Office Automation Software** – Research and Development Centre

Process Reforms

- Online – e Mail based communications – Scholars registration form, Doctoral Committee Communication
- Scholarships – Online Updation
- Member of PFMS
- Cashless Transactions
- Downloading Provision for Document formats from website
- Syllabus on Web – for affiliated colleges
- Communication over Intranet
- E Publication of Semester Exam Results

Teaching Learning Reforms

1. Smart Classrooms
2. Video-Conferencing Facility
3. Foreign Language Lab
4. Inviting Foreign Professors
5. Curriculum Development Cell
6. Digitization and Networking of Libraries
7. Entrepreneurship cum Skill Development Center
8. D space – e-Contents – Digital Archive

Digital Initiatives

- Intranet for Communication - **Campus Intranet in Bharathiar University for effective communication** between departments and administrative functional units.
- Paperless Conference - Digital Conference Management Tool, Web portal
- Intra-television
- Wi-Fi Connectivity
- Digitization and Networking of Libraries

Digital Initiatives…..

- eBooks, e Journals, e Resources – IEEE Archives
- High Performance Computing Centre
- Online Feedback
- Digital Archive of Course Materials – D-Space
- Online Objective Tests
- National Knowledge Network

Community Services

1. Center for Multimodal Material Production
2. VISAKA – Vittiya Saksharta Abhiyan – Digital Finance Literacy - National Level – Second Rank
3. Centre for Advanced Study on Swamy Vivekananda Studies - Values in Life
4. Anna Civil Services Coaching Centre

VISAKA- Award at National Level

- Second Rank **among Top Best 20 Institutions out of 4896 Institutions in our Nation in Government of India's Digital Financial Literacy "VISAKA".**



- **25667 Student volunteers**
- **2,05,232 Public**
- **4130 Traders & Shop Keepers**
- **Towards this an award has been given to Bharathiar University during VISAKA National Convention at Vijaya Bhawan New Delhi on 8 th March 2017**

BHARATHIAR UNIVERSITY

Digital Education

- Digitization and Networking of Libraries
- eBooks, eJournals, eResources
- High Performance Computing Centre
- Online Feedback
- Digital Archive of Course Materials – D-Space
- Online Objective Tests

Research and Innovation Initiatives

- Linking Research Labs (DRDO) with University
- IPR Cell
- Paperless Conference
- High Performance Computing Center
- Incubation and Technology Transfer Center

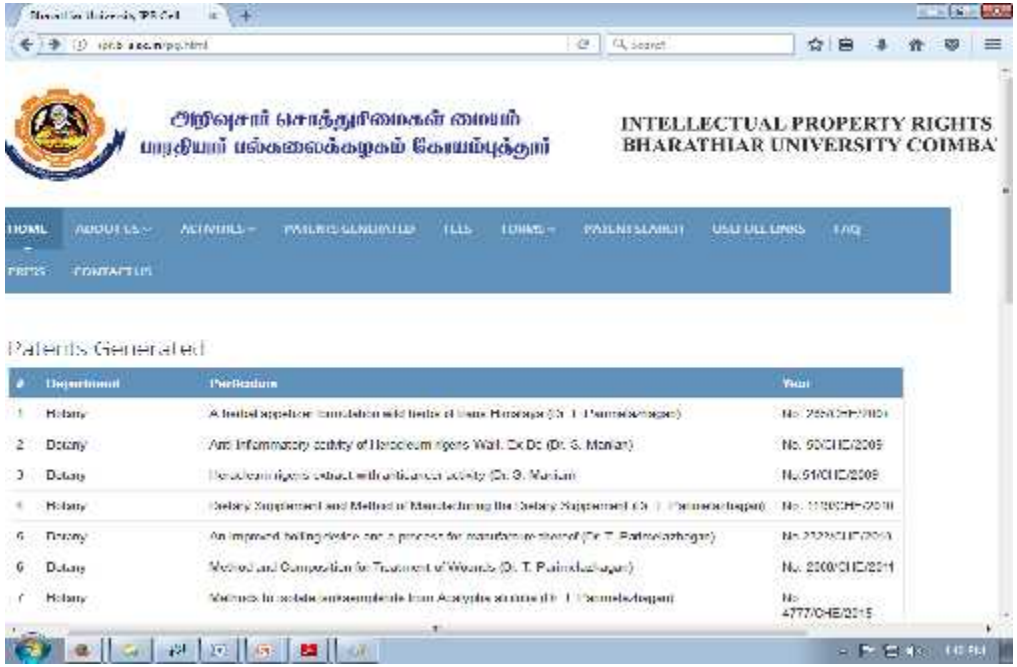
Linking Research Labs with University

- The University has recognized 20 Advanced Research Labs (in Sugarcane, Ornithology, Cotton Research, Tea) in the western part of Tamil Nadu.
- The BU-DRDO Centre for Life Sciences has been serving as a nodal centre to link with all the DRDO labs across the country. With a positive feedback from the BUDRDO Phase I programme, the University has successfully launched the BU-DRDO Phase II programme.
  - More than **20 nationally important labs are connected**.
  - Recently, this centre is provided with Rs. 22 crores for the second phase by Ministry of Defence.
- The University has recently initiated research collaborations with National Taiwan Ocean University, Keelung, Taiwan and Institute of Zoology, Chinese Academy of Science, Beijing.

Bharathiar University Intellectual Property Rights Cell

- Bharathiar University – Intellectual Property Rights Cell of the University has conducted several workshops on Patent guidelines.

- The scholars working with BU-DRDO CLS have filed 6 patents.



Thank you



Sree Sankaracharya University of Sanskrit Kalady , Kerala

Sree Sankaracharya University of Sanskrit Kalady

(Accredited by NAAC with 'A' Grade)

Implementation of E-Campus Project
Funded by RUSA

A Digital Innovation

For the sustenance of academic quality

E Campus-A novel project in Kerala

- This is the first University in Kerala which proposed to implement integrated campus wide network connectivity
- The Project supplements Wi-Fi facilities across the campus from Academic blocks to Student's Hostels.



Salient Technical features

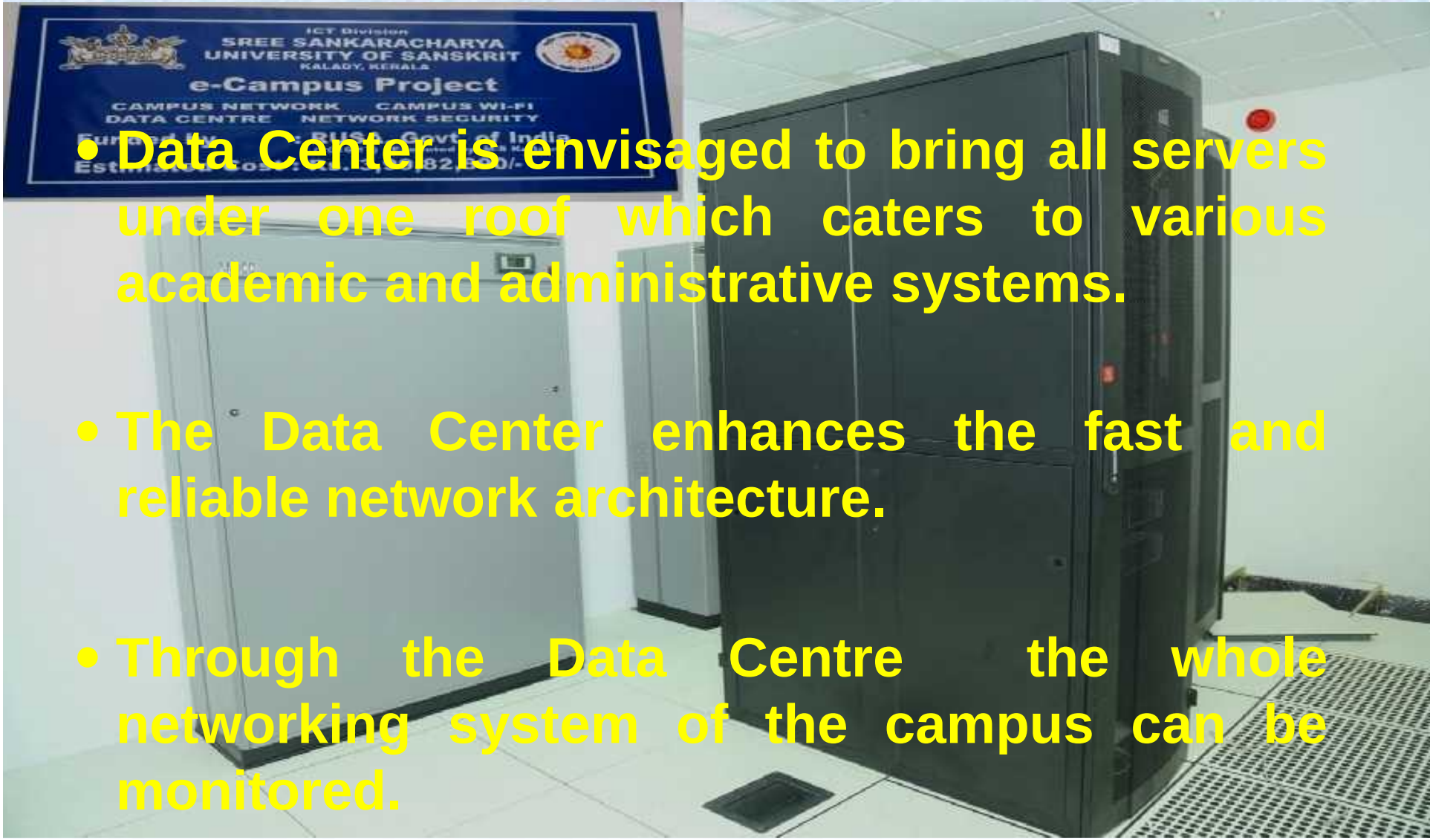
- 60 access points to provide uninterrupted Wi-Fi stream in the Campus.
- A well equipped Data centre with optimum eight rack server facilities.
- Two set of firewalls and alarming and message system for the safety and security.
- Three pronged power (DG /UPS/State electricity) enabled system ensures non failure working of the system.
- Provision of NKN connectivity in the campus gives scope for future expansion.

Special features of the e-campus



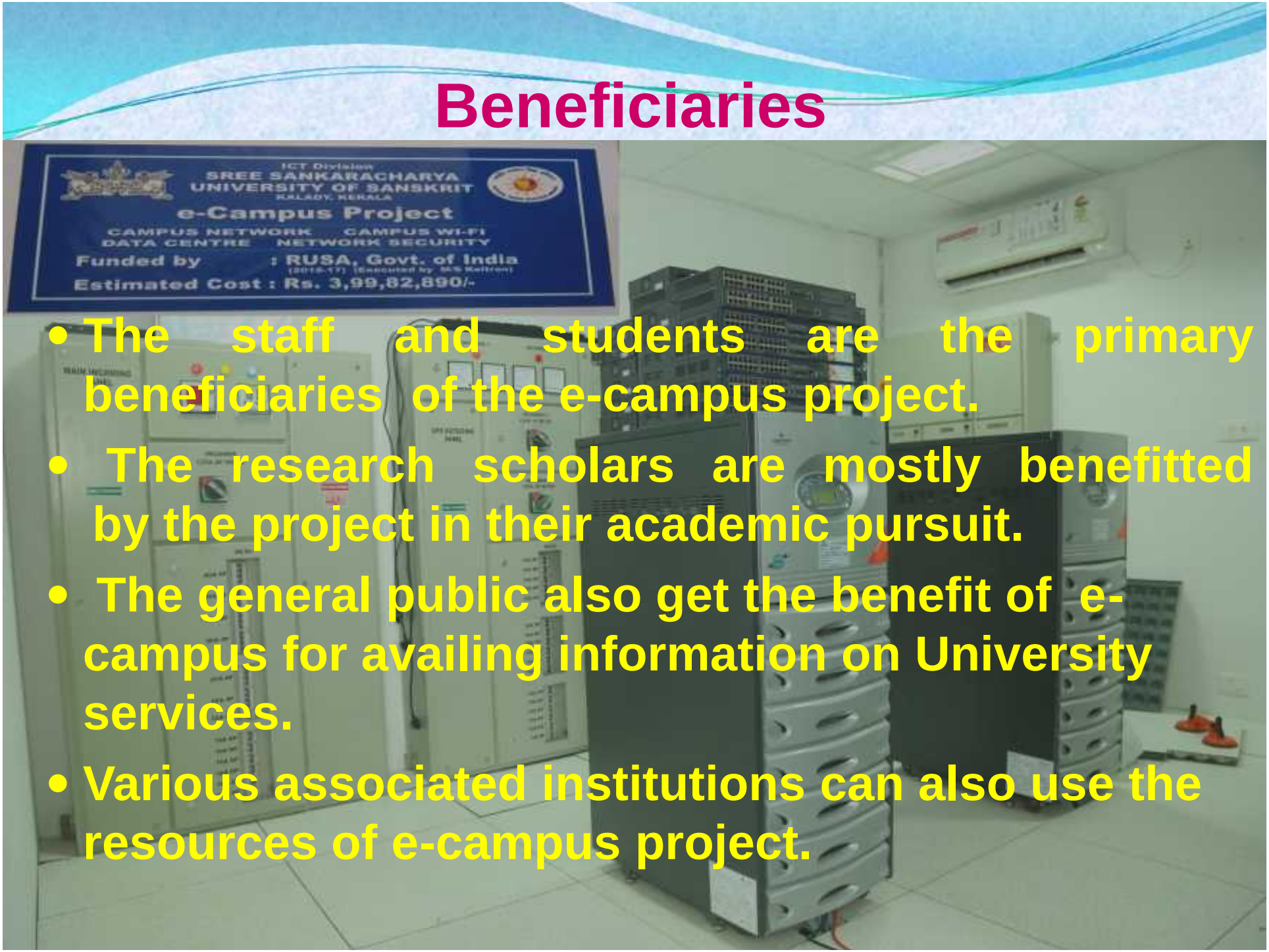
- Campus wide network
- 24 x7 Wi-Fi facility available through out the campus
- Internet with 1 Gbps speed
- Exquisite IT Policy for regulating the usage

Data Centre-A Premium Concept



- Data Center is envisaged to bring all servers under one roof which caters to various academic and administrative systems.
- The Data Center enhances the fast and reliable network architecture.
- Through the Data Centre the whole networking system of the campus can be monitored.

Beneficiaries



- The staff and students are the primary beneficiaries of the e-campus project.
- The research scholars are mostly benefitted by the project in their academic pursuit.
- The general public also get the benefit of e-campus for availing information on University services.
- Various associated institutions can also use the resources of e-campus project.

Paradigm benefits

- **Teaching - Learning : It gets revolutionized by the e-campus project; acts as an interface between the teachers and students for the effective pedagogical practice.**
- **Collection of Resources: The wide array of information and resources available in the internet world will be opened to teachers and scholars.**
- **Potentials to be tapped: Tremendous scope of future development in the academic scenario like online academic programs, digital library, academic depository can be supported by the project.**

Progress Report

- **The project was executed by M/s KELTRON, a Public Sector Undertaking and the official agreement between the University and M/s KELTRON was signed on 18.02.2016 with total financial outlay of Rs.4 crores.**

- **The project was commissioned in January 2017 and the University community is enjoying the benefit of the project ever since.**

Data Centre


ICT Division
SREE SANKARACHARYA
UNIVERSITY OF SANSKRIT
KALADY, KERALA
e-Campus Project
CAMPUS NETWORK
CAMPUS WI-FI
DATA CENTRE
NETWORK SECURITY
Funded by : RUSA, Govt. of India
(2016-17) (Executed by M/S Keltron)
Estimated Cost : Rs. 3,99,82,890/-
MAIN INCOMING PANEL

Data Centre Accessibility

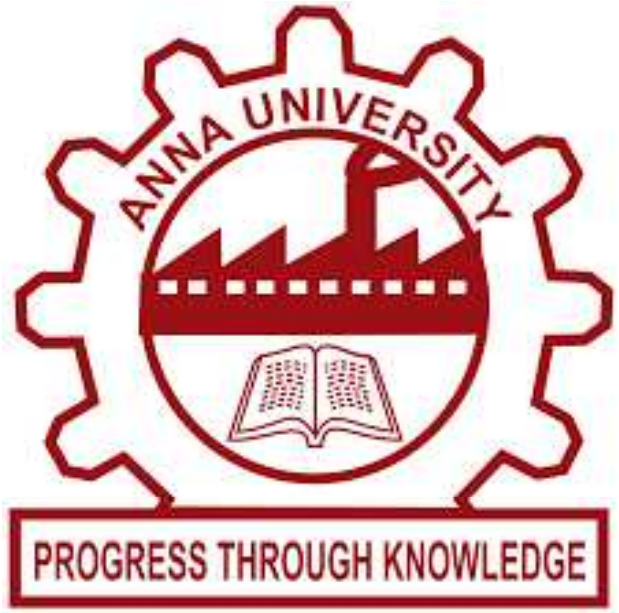


Launching…



Launched by Sri. A.K.Balan, Hon'ble Minister for Culture, Govt. of Kerala

Anna University , Tamilnadu



ANNA UNIVERSITY

ANNA UNIVERSITY

OMMUNITY SERVICES

- University Education and Mult
  Media Research Centre (EMMRC
  facilitates the promotion and
  excellence in teaching, learning
  research and community service
  through Anna FM
- University Knowledge Data Centre
  (AUKDC) facilitates the promotion
  and excellence in teaching
  learning, research and governance

ANNA UNIVERSITY

TUDENT MENTORING

- Centre for University Industry Collaboration (CUIC) facilitates the Online Registration of Student Data Base for Students through it Digitized Services, for on Campu Recruitment by industries organisations.
- Hackathon was conducted with M/ Titan Sponsorship to promote innovative ideas into products
- Mobathon was conducted with M/ Daimler Sponsorship to promote Mobile Platform Applications

ANNA UNIVERSITY

ESEARCH AND INNOVATION INITIATIVES

- University Centre for Technology Development and Transfer (CTDT) facilitates the Online Submission of Student Innovative Proposals of Anna University through its Digitized Services, for Grant support.
- CTDT facilitates the Online Submission of Faculty awards for Best Consultant and Best Researcher of Anna University through its Digitized Services.

ANNA UNIVERSITY

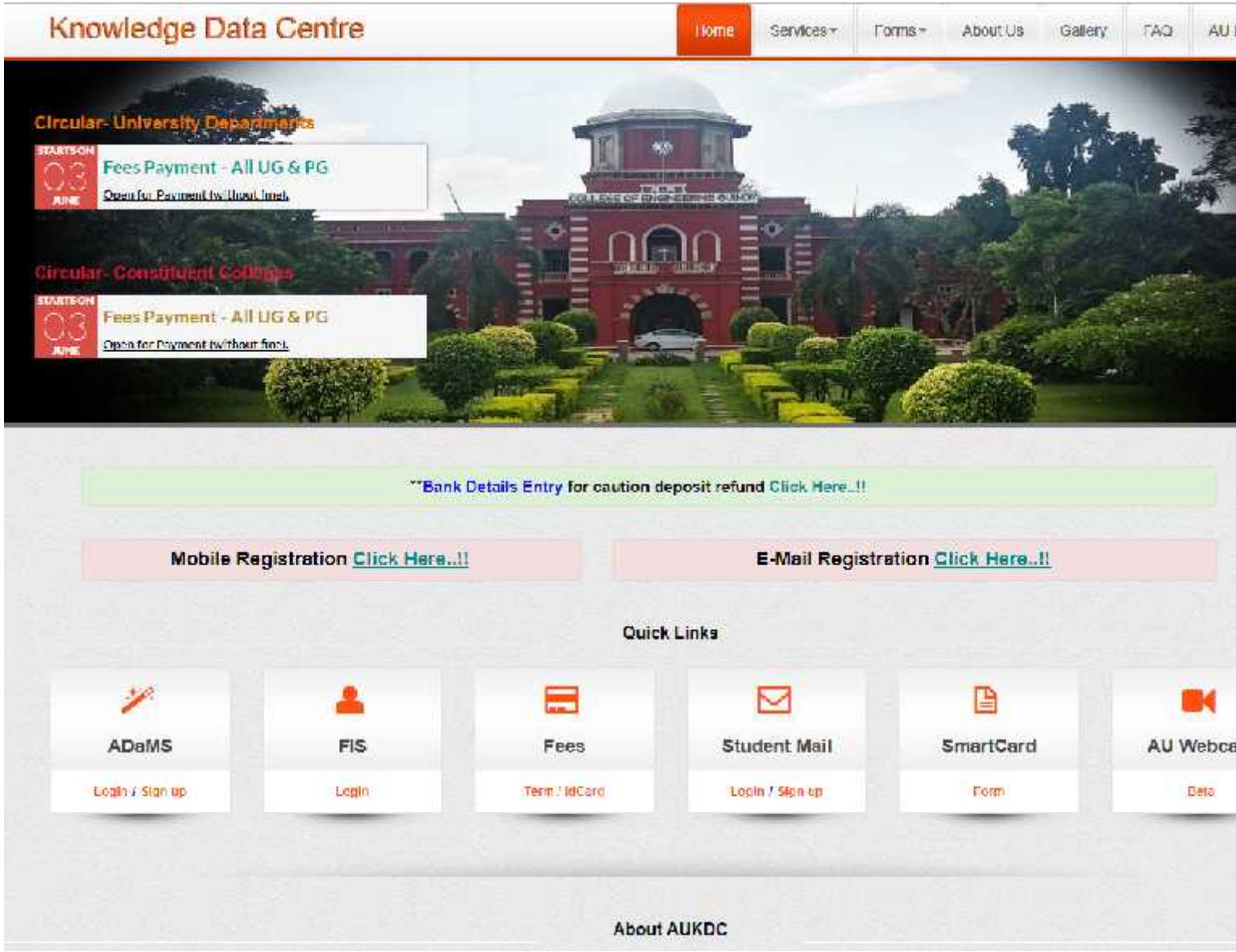
IGITAL EDUCATION



- Anna University, Additional controller of Examinations facilitates the Online Registration of Student data and their Course selection options for every semester through its Semester Examination Management System (SEMS) through its Digitized Services : https://acoe.annauniv.edu/sems/
- SEMS also enables faculty to upload thei internal and final evaluation reports
- Exam Hall tickets are generated through SEMS and final results are declared through SEMS

AUKDC

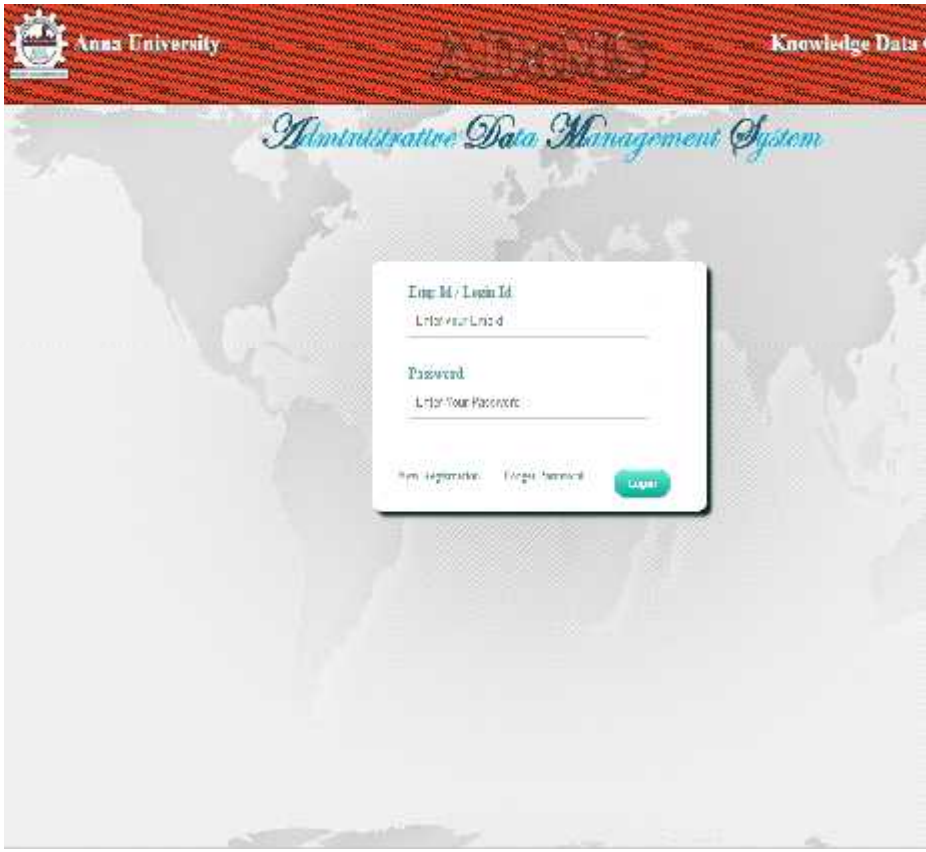
Digitized Services



ADaMS

Administrative Data Management System (ADaMS)

- General Provident Fund (GPF) Processing including application, statement and information
- Contributory Pension Scheme (CPS)
- Students Fee Defaulter's List generation to be used by Dean Offices and Head of the Department Offices
- No Dues processing for students of University Departments and University College of Engineering of Anna University



AUPaG

Anna University Payment Gateway (AUPaG)

Payment related student services offered through AUPaG

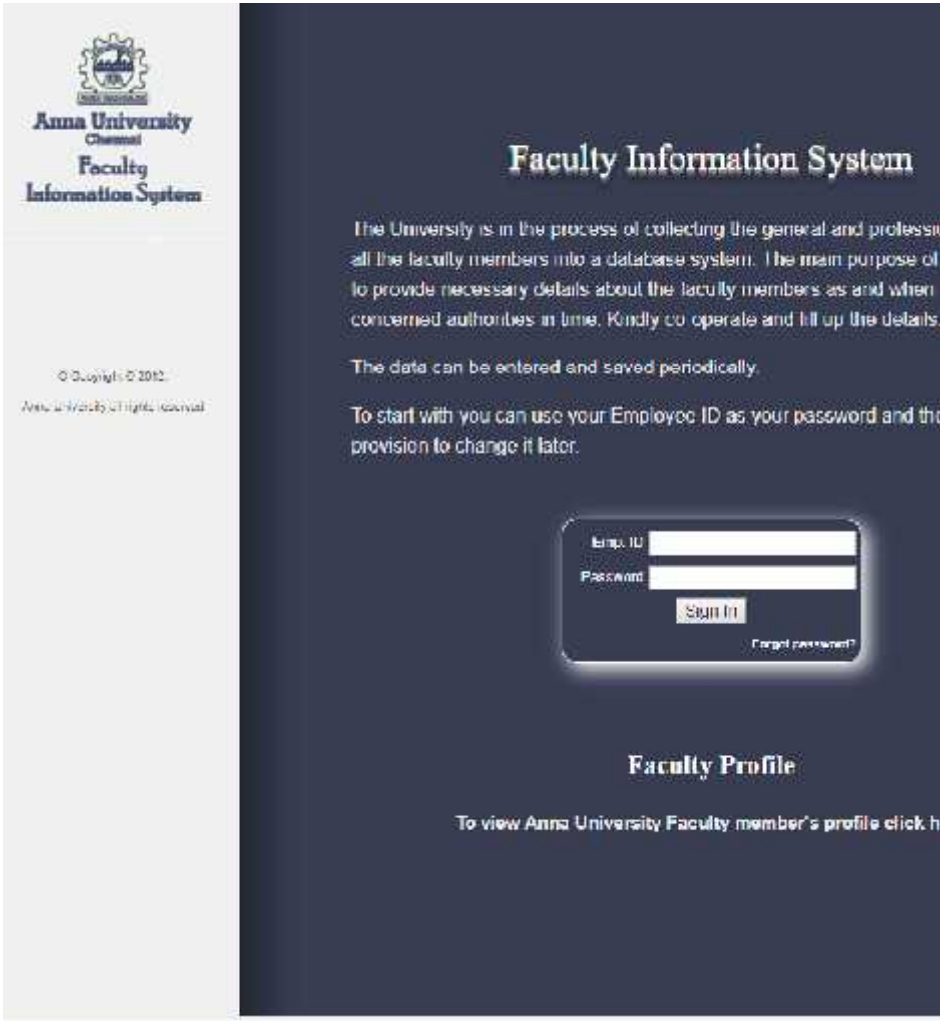
- Payment of Fees
  - Semester Tuition Fees
  - Smart Card Fees
  - Admissions Fees
- Preparation of receipts and DCB statement
- Generation of Bank Loan Structure
- Process Refunds for students
- Process reimbursement of caution deposit



FIS

Faculty Information System

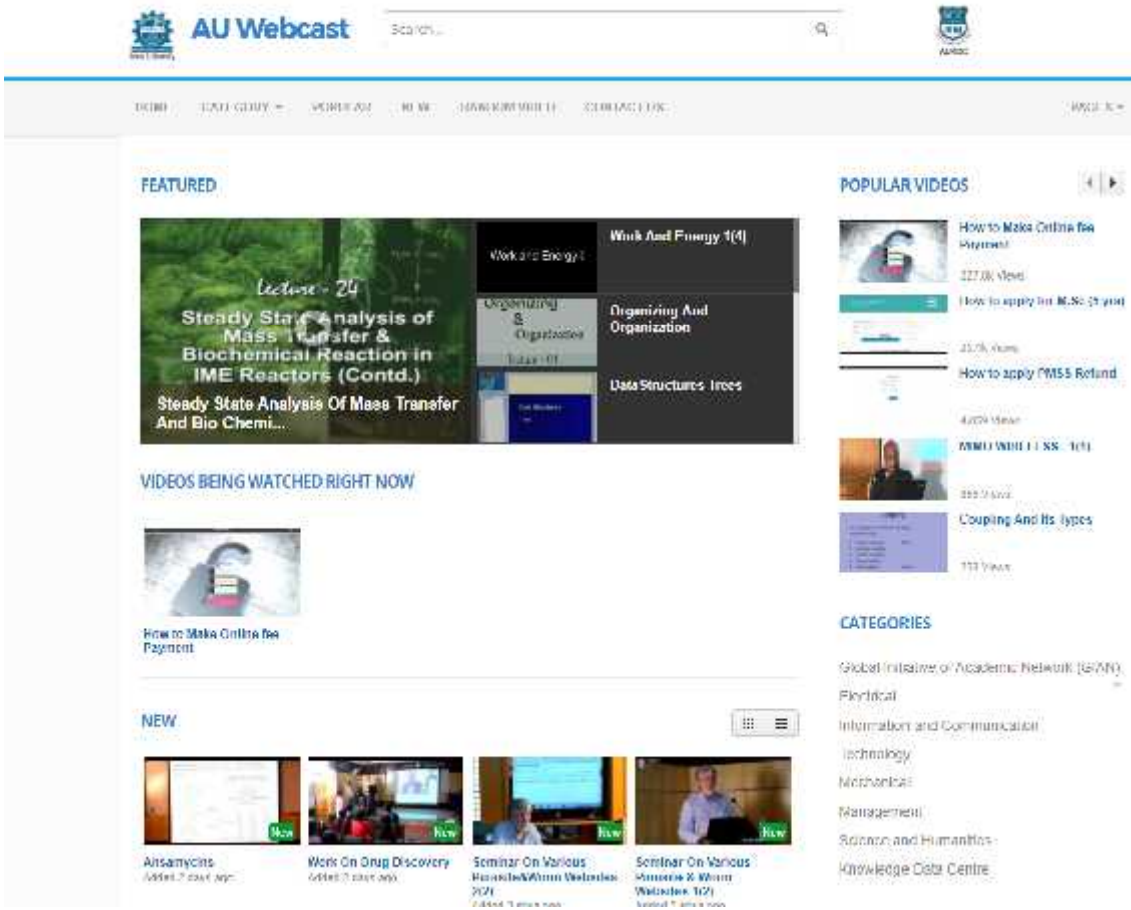
- Maintenance of faculty profile
- Report generation
  - Individual faculty wise
  - Dean wise
  - Head of the Department wise
  - Registrar and Vice-Chancellor



AU Webcast

Anna University Web casting service (AU Webcast)

- Campus YouTube
- Academic Videos
- Tutorial Videos
- Course Videos
- Selected IIT Lecture Videos



CMS

Card Management System (CMS)

- Data capturing (including remote capture of photo for University Colleges of Engineering) for smart cards for University Departments and University Colleges of Engineering of Anna University.
- Data Verification and Processing
- Data Printing and Issuance tracking

New Webpage is designed and temporary server is arranged to upload the contents information. Some of the DATA are already uploaded in the website

Web site is Ready for Launching



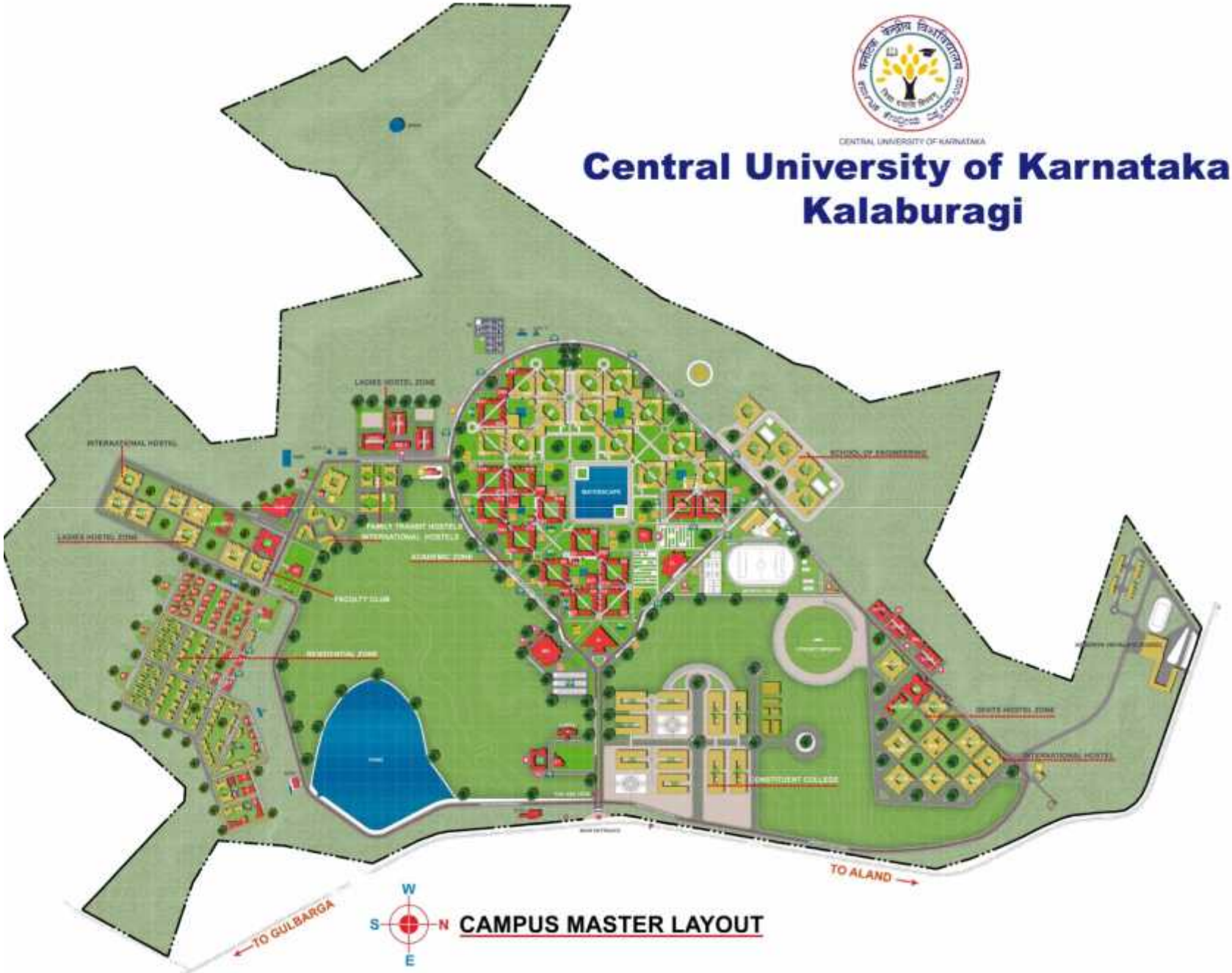
Central University Of Karnataka



Central University of Karnataka

Digital Content at CUK

Central University of Karnataka
Kalaburagi



Profile

Establishment

- Act of the Parliament (No. 3 of 2009) as one of the 13 new Central Universities in India during UGC XI plan

Status

- Central University Funded by UGC/MHRD

Jurisdiction

- Karnataka

Location

- 654 acres of land at Kadaganchi & Suntanur villages on the Kalaburagi-Waghdhari Inter-State Highway

Building Area

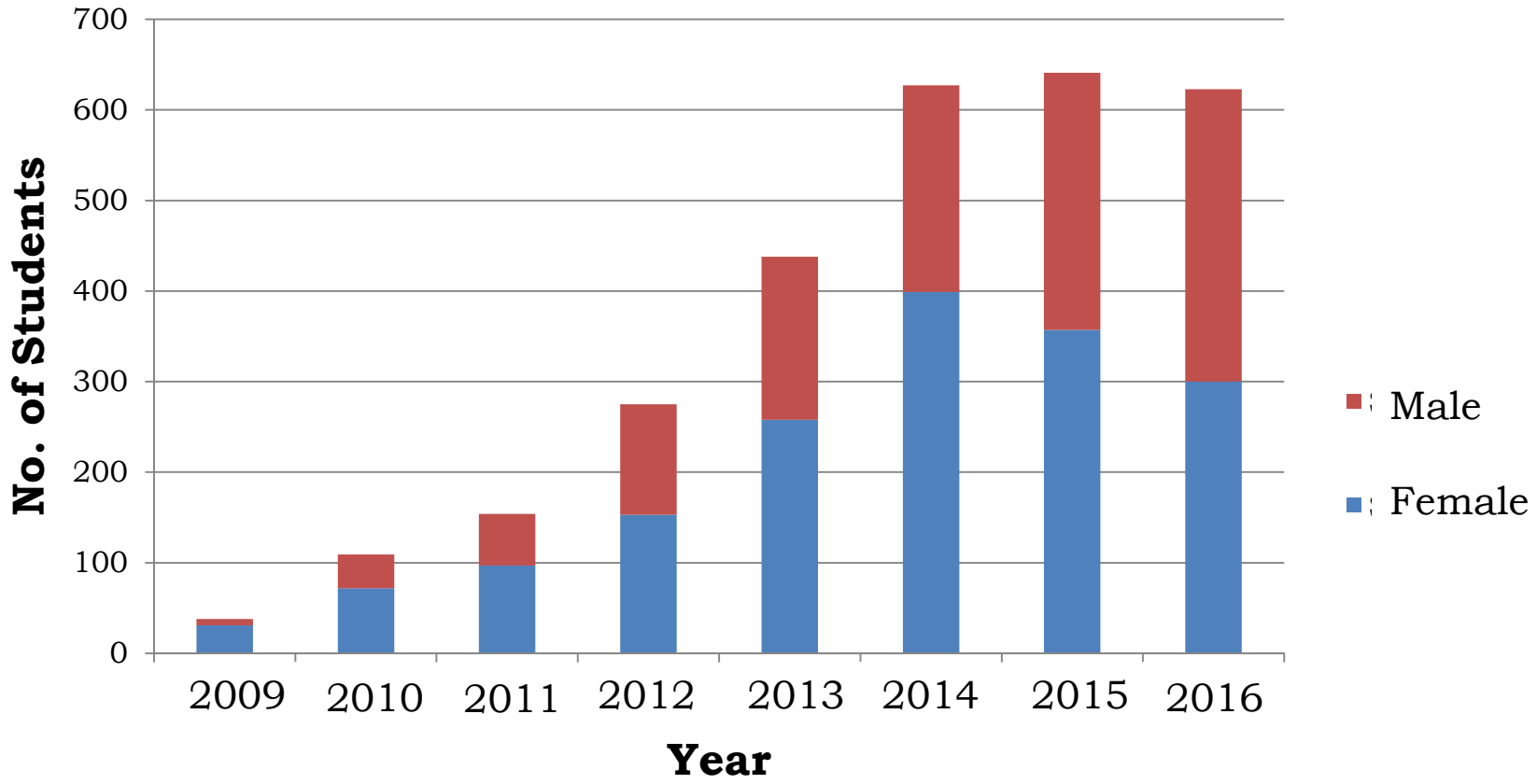
- 27,423.45 Sq.mts.

Students enrolled: 2931 (till 2016-2017)

Graded: B++ by NAAC

Student Intake

Currently 1583 students are enrolled in the University

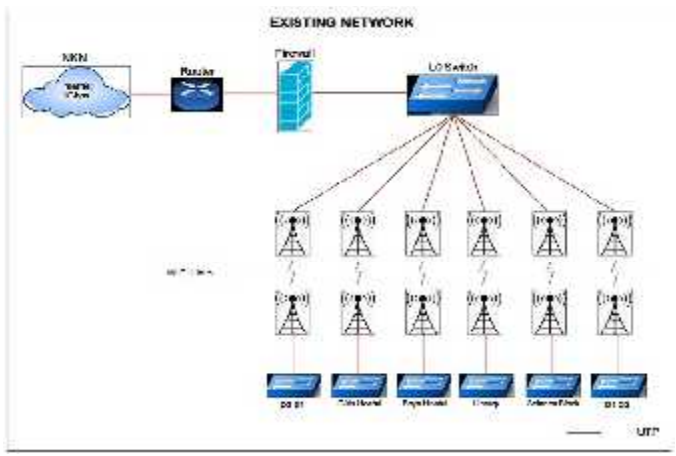


National Knowledge Network (NKN)

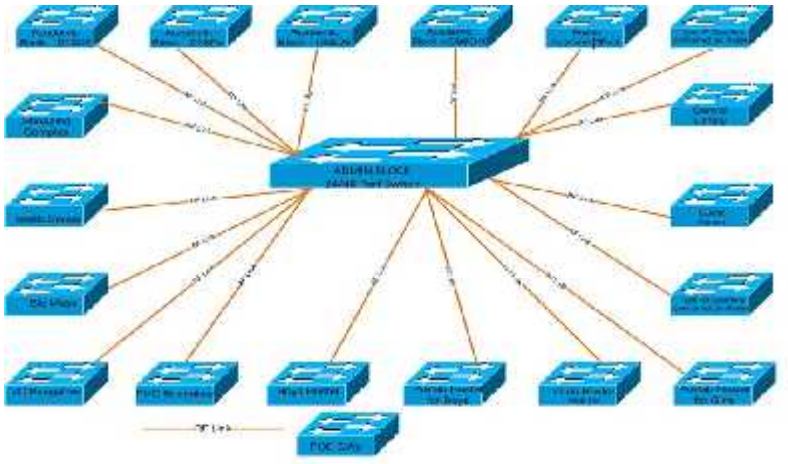
•National Knowledge Network (NKN) 1Gbps leased line internet connection provided under the National Mission on Education through Information and Communication Technology (NMEICT).

- CISCO ROUTER Model: 2800 Series
- FIREWALL CYBEROAM Model: 750 IA
- CISCO Switch CATALYST 3560 series
- D-LINK SWITCH 48 PORTS Model: DGS 1024D.
- HP Z420 Workstation.
- MATRIX Eternity EPABX System.
- 20 KVA UPS System.
- Multi Printer (Canon image Runner Advance 4225)
- Projectors, scanners, laptops

National Knowledge Network (NKN)



Network flow at CUK



Network Architecture

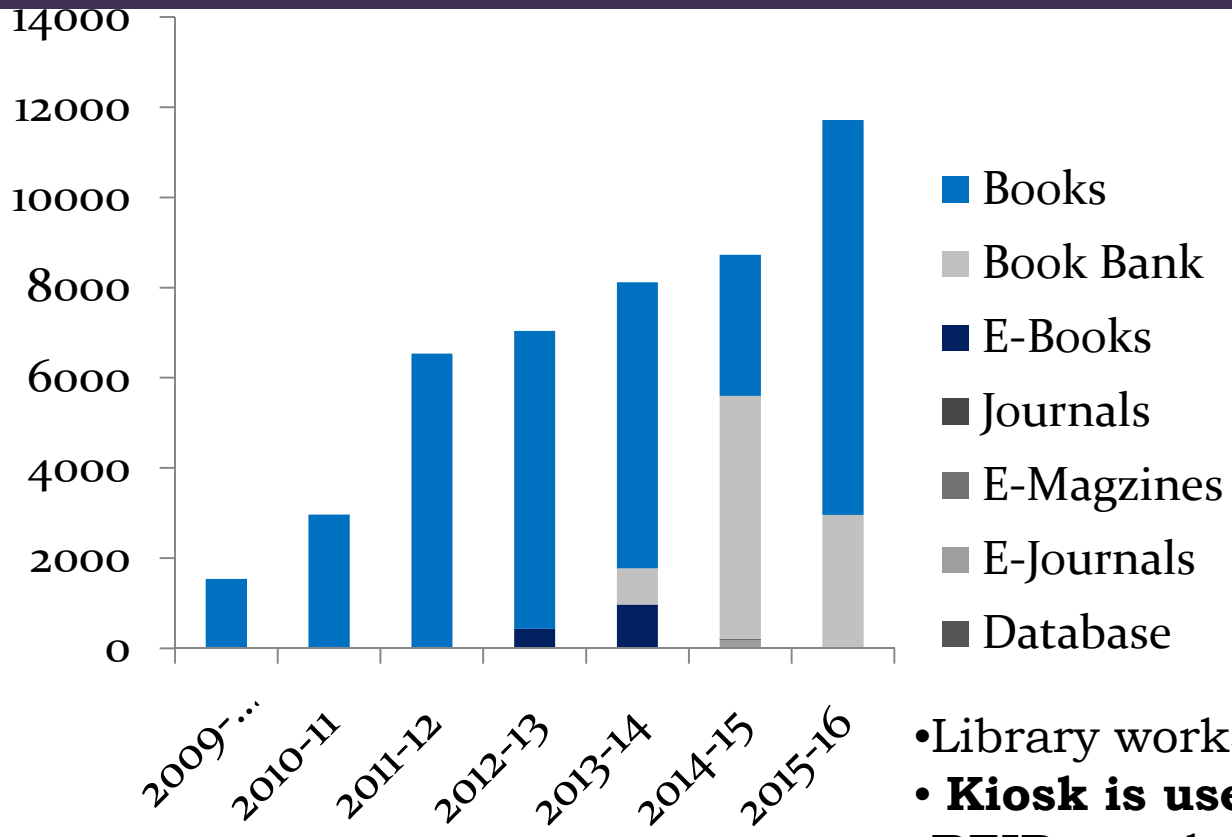
IT infrastructure

Sl. No.	Particulars	Quantity
01	Desktop Systems	310
02	Servers	04
03	HP Z420 Workstation.	01



Video Conferencing and ICT equipment for all the departments are made available.

Digital Library



Resources	Total
Books	41238
Book Bank	9281
Journals(Print)	73
UGC Infonet e-journals	**9897**
E-Books	**903**
Back Volumes (Print)	520
Thesis and Dissertation	30
News Papers	10
General Magazines	25
CD-ROM/DVD	290

- Library works are fully automated
- **Kiosk is used for search and locate**
- **RFID** technology for access and identification

Digital Learning resources

- NPTEL – Local Chapter is hosted at CUK
  - More than 40 Course listed as elective
- IEEE Webinars are hosted regularly
- Faculty are involved in digital learning material
- MOOCS online course are under preparation.

E Fees- Finance Management

- Online fees payment
- Finance management through software
- E- financial report preparation and assessment
- Direct Benefit transfer to students

Procurement through Digital Mode

- **Central Public Procurement (CPP) Portal**
  - ~ 44 tenders floated
  - Paperless tendering/ Procurement

- **GeM portal**
  - GeM procurement initiated

National Academic Depository (NAD) Implementation



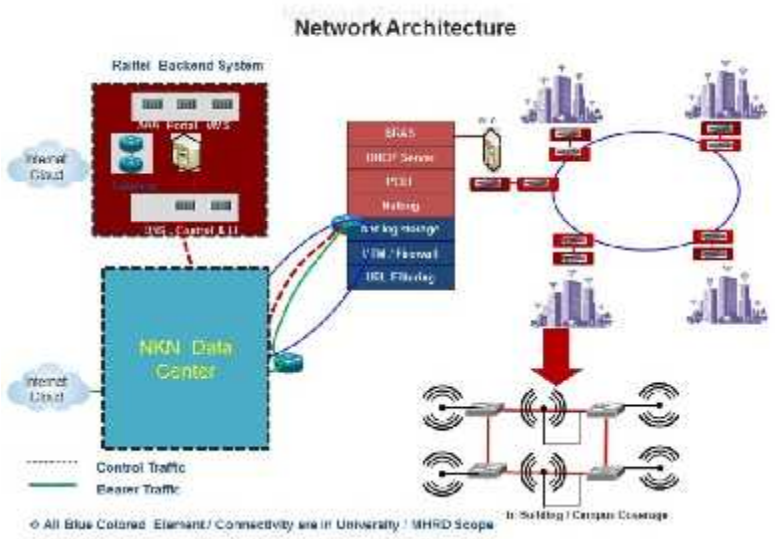
NAD In the final stage of Implementation

Digital Campus

• Wi-fi connectivity with 90 access points (Hot spots) along with existing 40 access points.

•50 Meters range for each node.

•Coverage area academic bay, Hostels, Library, Labs and faculty residence (25% of the areal spread is covered) .



Campus Wi-Fi Connect Programme is under process.

Other initiatives

- First Central Universities Common Entrance Test (CUCET) was being organized by CUK.
- Online Admission Process.
- Online recruitment process is being followed.
- Web –publication of University activities.

Future Initiatives

- Developing the existing IT infrastructure keeping in view of the future needs of the University in education, research and administration'
- Establishment of Central University of Karnataka Campus Networking
- Establishment of CUK- Network Resource Centre
- Establishment of E-CUK services
- Establishment of CUK Language Lab
- E-Content Development Centre / CUK e- Learning Centre


Thank You
CENTRAL UNIVERSITY OF KARNATAKA

Central University Of Kerala

Presentation by

Central University of Kerala

@

National Convention on Digital Initiatives for Higher Education

National Digital Library

Central University of Kerala is already utilizing the services of NDL. Others include

1. DELNET Consortia
2. American Consulate Library Membership
3. Current Science Association Membership
4. Shastri Indo-Canadian Institute Membership

Open Source Library System

- The library is automated with KOHA Open Source Library System.

National Academic Depository

- The Central University of Kerala has signed an MoU with NAD to make available academic awards and shall help in validating their authenticity, their safe storage and easy retrieval. The University has decided to select NSDL Database Management Limited(NDML) as the depository for utilizing the services of NAD.

e-Shodh Sindhu

- The Central University of Kerala already utilizing the services through INFLIBNET. (UGC Infonet Consortia)

WiFi Campus Connectivity

- The Central University of Kerala has started the Campus Connect WiFi supported by MHRD. The process of lying the optical fibre and provision of the WiFi is currently under process including recently constructed permanent academic buildings.

Other Digital Initiatives

- File Tracking System
- E-Filing System
- Educational Multimedia Research Center
- Project Management System

SWAYAM Courses

- The Academic Council of Central University of Kerala has approved to start IT Massive Open Online Courses (MOOCS) through SWAYAM on 19th December 2016. It has approved to provide the provision/ flexibility for the students to select an elective course from the MOOC courses provided by other institutes.
- However due to the unavailability of recording room and equipment facility in the university, the **MOOC content development is in the infant stage (We have to travel 10 km to reach the nearby recording center and they may charge for recording).**

Digital Education Initiatives

- Course Management System
- Moodle Learning Management System
- Remote Class Room/Video Conferencing Facility

Future Plans

- Virtual Labs
- Talk to a Teacher
- e-Acharya
- E-Kalpa
- FOSSEE
- Central cloud Infrastructure

Manipur University (A Central University), Manipur



Improving Quality of Education

- Educational Multimedia Research Centre (EMRC), Manipur University is one of the Centre for Improving the quality of Education
  - **Educational Multimedia Research Centre, EMRC, Manipur University was established in 1989 with the objective of providing higher education through Information Communication Technology (ICT).**
  - **The Centre with its multifaceted activities in digital learning has been providing knowledge to the student community of the University.**
  - **Students of the University are benefitted by the live lectures given by renowned experts from different parts of the country through the EDUSAT live lectures.**

EDUSAT Live Lecture Programmes

- Look East Policy
- Indo- Myanmar Border Trade
- Right to Information Act, 2005
- Consumers Rights
- Violence against Women
- Universal Periodic Review-I
- Universal Periodic Review-II

Online Courses through EDUSAT-SIT

- Scriptwriting for Film and Television
- Editing for Film and Television

Improving Quality of Education

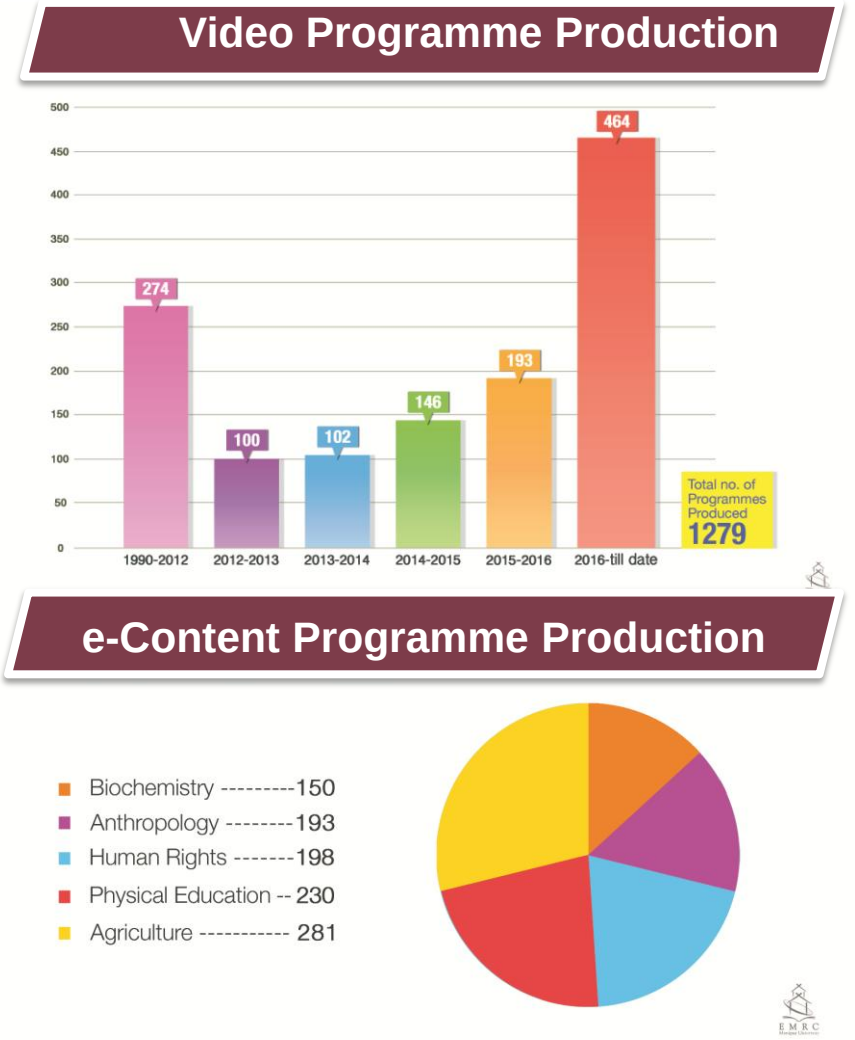
- **Providing teaching ends both from EMRC studio as well as from studios of other Centers, the experts interacted with students watching the programmes across the country.**
- **Students of the Department of Journalism and Mass Communication, MIMS, Dept. of Political Science, Dept. of Economics etc. of Manipur University participated in the live classes.**
- **The faculties of Manipur University are heavily involved in the development of e-Content Courseware.**

Efficiency and Transparency in University Administration and Finance

- PFMS (Public Finance Management System) of Govt. Of India has been implemented.
- Admission process has been digitized since 2016-17 academic session.
- In the process of digitization of examination result publication.
- In the process of implementing e-tendering.

New Technology in Teaching and Learning

- Massive Open Online Course (MOOC) MOOC or Massive Open Online Course is a recently launched Online Course on SWAYAM.
- A twelve weeks long MOOC on Archaeological Anthropology developed by the EMRC, Manipur University was launched on SWAYAM from 14th November, 2016 to 3rd February, 2017 having a total enrolment of 295 learners.
- More courses on Anthropology, Human Rights, Agriculture, Physical Education and Biochemistry will be opened soon .
- Introducing Smart Classroom in all Teaching Department in Manipur University.



Community Outreach

- Swatch Bharat Abhiyan has been succesfully running periodically
- University has taken to achieve Plastic Free Zone.
- Under Go Green Campaign university conducted massive plantation programme from time to time bothin campus and surrounding areas
- 50 Bicycle was bought for use by university community specially students in the campus as the first phase with an aim of reducing carbon emission.
- Above 3000 participant from in and round the university celebrated International Day of Yoga.
- Regualar Workshops are

Awards Received by EMRC, Manipur University



- Tupis and Nanas, Best video programme in the UGC-CEC 1997
- Imphal Battle, Best Graphics, Best Script, Best Programmes in the UGC-CEC 1998
- Feathered Guests, Best Programme in the UGC-CEC 2000
- Waiyu of Chothe, Best Programme in the UGC-CEC 2003
- The Miller of Haipi, Waiyu of Chothe, Best Programme in the UGC-CEC 2006
- Kang-Indigenous Game of Manipur-II, Best Video Programme in Graphics in the 21st UGC-CEC 2011

FUTURE TARGETS in MMOOC

More Massive Open Online Courses

- Online courses on various disciplines namely Manipuri Literature, Manipuri dance, Folklore, Performance Studies, Cultural studies, Thang-Ta: The armed martial art of Manipur, Social Exclusion and Inclusive Policy Studies etc.

Production Target (2017-2018)

- The centre has a target of producing 450 video programmes (Classroom-based and enrichment programmes) and 400 e-Content programmes during 2017-2018.

P.G. Diploma course in Electronic Media

- The centre has a vision of offering P.G. Diploma courses in Electronic Media.
- Introduction of DTH (SWAYAM PRABHA)
- The centre will provide educational channels to the viewers and monitor the DTH for smooth delivery of the programmes.

Maulana Azad National Urdu University, Hyderabad

Digital Initiatives at MANUU

for

MHRD Meeting on National Convention on Digital Initiatives

08 .07.2017 and 09.07.2017

MAULANA AZAD NATIONAL URDU UNIVERSITY
(MANUU)
HYDERABAD

GENERAL INFORMATION

ersity Name	Maulana Azad National Urdu University		
on	Hyderabad – Metropolitan City – State Capital		
te Address	www.manuu.ac.in		Programs
s	Air, Rail and Road		General
f Establishment	9th January,1998		Professional
of Education	Distance	1998	Technical
	Regular	2004	Vocational
of University	Central University with National Jurisdiction		
ditation/Recognition	NAAC, AICTE, NCTE, UGC-DEB etc.,		
tions/Memberships	IAU, ACU, AIU etc., and NKN		

- ✓ NAAC Grade 'A' University (2009 and 2016)
- ✓ NIRF Ranking range of 101-150 among Un



Faculty/ Schools	Seven
Depts.	Twenty
Constituent Colleges/ Instns.	Seventee

In addition, 3 New Constituent Institutes (2 Polytechnics &
were Approved by MHRD in March, 2017

Mandate of the University

Mandate of the University as per Act :-

o promote and develop the Urdu language;

o impart education and training in vocational and technical subjects hrough the medium of Urdu;

o provide wider access to people desirous of pursuing programmes f higher education and training in Urdu medium through teaching on he Campus as well as through distance mode and

o focus on women education.

Language is the Fundamental Symbol of Cultural Identity that unites the ly divided Societies into One and integrate well with the National Language

How Different from Other Universities?

- MANUU has the distinction of offering academic programs in all forms of general, technic professional and vocational education and also showcase the uniqueness of deliveri instruction through Urdu medium from elementary to higher education levels (KG to Ph.D
- One of the Central Universities in the Country with National Jurisdiction to Open C Campuses across the States and offering Courses / Programs in Urdu Medium under bo Regular and Distance Mode in all forms of educational delivery;
- Catering the educational needs of the society by reaching the unreached;
- Transforming the University into a Sustainable Eco-Campus to establish a manageme framework for conservation measures in terms of environment, energy and water th creates an impact on national culture and policy;

ersity Status

re

- Central University established through An Act of Parliament, 1998
- Offers Programs in Urdu Medium both Regular and Distance Mode

- 17 Constituent Colleges/Institutions covering 10 States
- Delivers Academic, Research & Training Courses through General, Professional, Technical and Vocational Streams

e

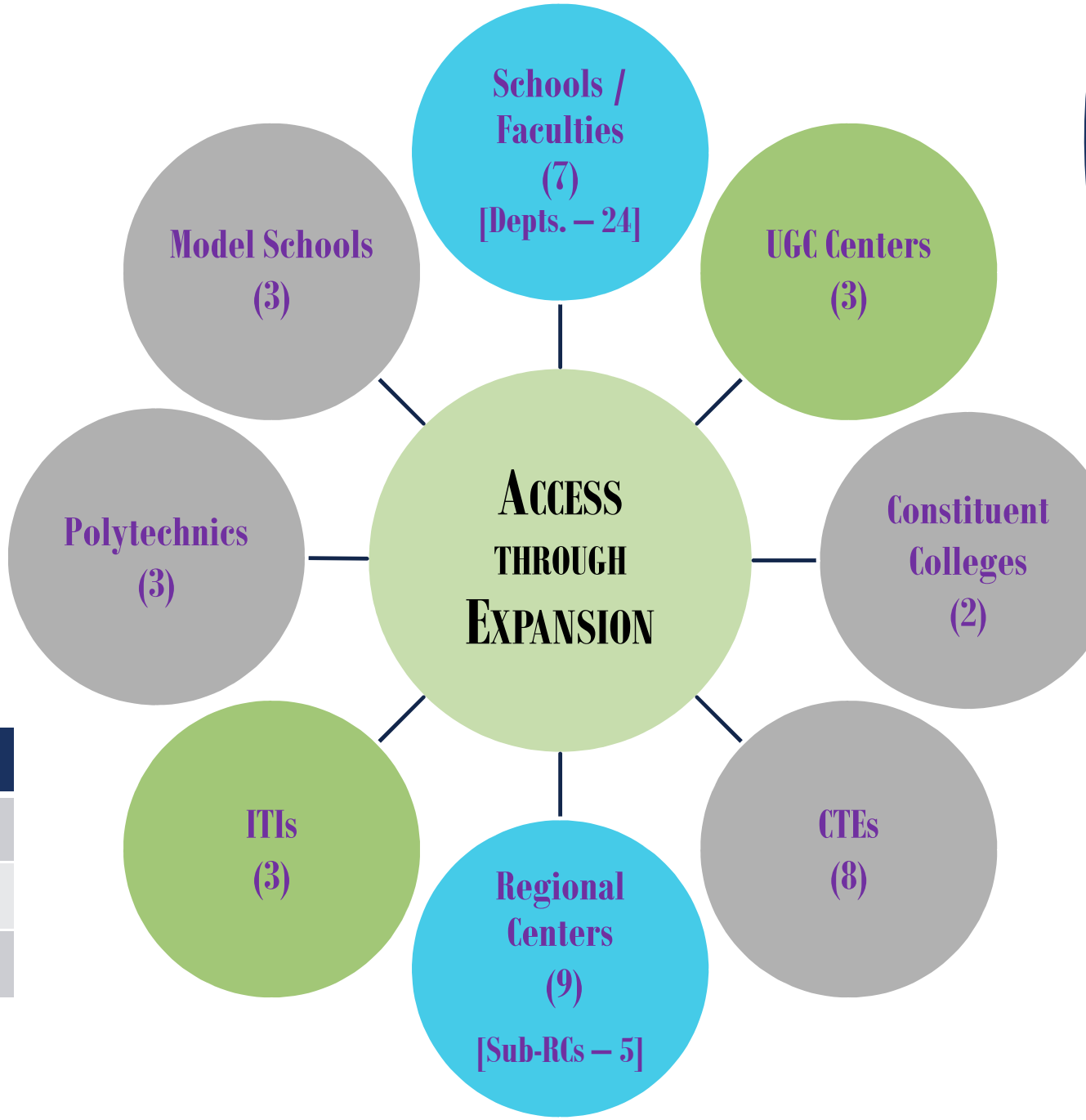
End of Plan	Students	Faculty	Others	Staff	Plan Grants
XI	1999	293	99	364	112.50
XII	6696	384	130	398	208.10

Existing Off Campuses
Colleges of Teacher Education - 8
Established based on the Report of WG - TE for NMTE to meet local needs
Polytechnics & ITIs - 2 + 2
Established based on the recommend Justice Sachar Committee
Model Schools - 3
Established based on Fatmi Committee
MANUU - Arts & Science College f Women and MANUU - Arts Colleg
Established to meet the Mandate of Un to reach the unreached

PARTNER / MEMBER Digital India Project

National Knowledge Network (NKN) - National Mission on Education NME - ICT	Campus Connect
	UGC - INFLIBNET
	NDL - Cluster
	SWAYAM - MOOC's
	Bharatvani

UGC Centers
UGC - Human Resources Development Center
UGC - Center for Social Exclusion & Inclusive Policy
UGC - Center for Women Studies



igital Initiatives of MHRD

ademic Aspects:

SWAYAM (India's own MOOCs),

Swayam Prabha (DTH Channels),

National Digital Library (containing 6.5 million books), and

National Academic Depository (Certificates Repository)

nancial Aspects:

National Digital Payment Mission (NDPM)

rategy for Implementation of Digital Initiatives at MANUU

rsity identified the following divisions to associate with l initiatives of the MHRD in the form of Coordination, ementation and User divisions.

ordinating Division
lanning & Development, Academics and Finance)

nplementing Division
nstructional Media Center, University Central Library, Examination anch and Center for Information Technology)

er Division

Academic Aspects
(Departments/Schools; Research/Training Centers DDE; RCA;)

Financial Aspects
(CAC, CoE, Provost Office and Guest House)

The main Focus will be on Implementing Division

1. **Instructional Media Center**
    1. SWAYAM (India's own MOOCs)
    2. SWAYAM PRABHA (D2H Chanells)
    3. E-ACHARYA (Interactive e- Content)
2. **University Central Library**
    1. National Digital Library (NDL)
    2. UGC-INFLIBNET (Shodh Ganga, Shodh Gangotri & Shodh Sindhu)
    3. E - Vidwan
3. **Examination Branch**
    1. National Academic Depository (NAD)
4. **Center for Information Technology**
    1. Campus Connect
    2. National Digital Payment Mission (NDPM)

NSTRUCTIONAL MEDIA CENTER (IMC)

ut Instructional Media Center

U has established in 2008 a full-fledged uctional Media Centre' (IMC) on its us with an objective to offer academic ams in higher education, with Urdu as edium of instruction. At the same time, U's mandate is also to promote Urdu e, literature, arts and crafts among the speaking people at large.

Strategic Digital Initiatives

1. **SWAYAM (Streaming of MOOCs),**

- MANUU through approval its Academic Council agreed to offer 5-10% of MOOCs subjects under Credits. Accordingly Department/Schools/Centers were asked identify suitable courses to be audited online will be evaluated by the University approved Scheme of Assessment to award Non-CGPA Credits

2. **SWAYAM PRABHA (Facilitating 32 Educational Channels)**

- MANUU has produced so far 350 video lessons in Urdu language on various disciplines for the Distance Education Students of MANUU and also telecasted through DD Channel. Presently the MANU the necessary production equipment to produce Video Lessons in Urdu language and request an channel to be allocated for the purpose of Urdu medium students.

3. **E-ACHARYA (Interactive Sessions in identified locations of Various Schools of MANUU)**

- MANUU interested in expanding its e-Class Rooms to various Schools and Centers in addition t campuses and intends to facilitate the e-Acharya portal accessible to all the students for enrich knowledge with best available faculty and also through featured guest lecture.

NIVERSITY CENTRAL LIBRARY

ut University Central Library

aiyid Hamid University Central Library the knowledge resources to the various needs of t community, faculty and other administrative rough various modern facilities.

Strategic Digital Initiatives

1. UGC-INFLIBNET

- University Signed an MoU and created the necessary infrastructure for uploading of thesis and synopsis.
  - Shodh Ganga
  - Shodh Gangotri
  - Shodh Sindhu

2. National Digital Library

3. E-Vidwan

XAMINATION BRANCH

out Examination Branch

ination Branch headed by Controller of Examinations is f the Statutory Functionary of the University to empanel paper setters and examiners, conduct examinations, ize evaluation, process the results and issue the icates of qualification for awardees.

National Academic Depository (NAD) as part of Digital initiatives for repository of certificates, degrees and academic awards issued by the Higher Education utions. The University registers itself with the NAD and odal Cell of the University would be responsible for the enticity of data digitally uploaded into the NAD system.

Strategic Digital Initiatives

1. National Academic Depository

- University already approved in its Academic Council to reg itself with National Academic Depository (NAD) by identi either one or both interoperable agencies for Service Agreement after due negotiations.
- The issue was placed before MoU committee and agree principle to wait until the rates fixed or approved by ministry. Since Ministry has finalized the issue the University state of finalizing the Service Level Agreement (SLA).

ENTER FOR INFORMATION TECHNOLOGY

out Center for Information Technology

University established Center for Information nology (CIT) in the year 2014 to optimize the ICT led services for both academic and administrative irements while improving its ICT Infrastructure to re the quality of education and research to reach scales and also to enhance accountability and sparency in administrative functioning.

Strategic Digital Initiatives

- Campus Connect
  - University covered with 2/3rd of LAN and Wi-Fi connectivity b year 2014 the remaining 1/3rd area developed during 12th P in the process of completing under Campus Connect Project.
- National Digital Payment Mission (NDPM)
  - University initiated its Digital Payment System thr Online Payment and Switching over Cashless mode thr Swiping Machines at User ends.

URE PLANS

versity intends to

stablish its Own Cloud System and also Database Center.

lave its own Channel for reaching the unreached through its Mandate.

xpand its activities in tune with the National Mission Mode Mandate.

reate its own brand image in delivery of curriculum and dissemination of knowledge.

the Participating Units will be strengthened for functioning and optimal zation of created IT Infrastructure.



THANK YOU



महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय

Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya

(संसद द्वारा पारित अधिनियम 1997, क्रमांक 3 के अंतगत स्थापित केंद्रीय विश्वविद्यालय)

(A Central University established by Parliament by Act No. 3 of 1997)

नैक द्वारा 'A' ग्रेड प्राप्त Accredited with A Grade by NAAC

Mandate :

To promote and develop Hindi language and literature, through teaching and research, with a view to enabling Hindi to achieve greater functional efficiency and recognition as a major international language. ---- University Act



महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय

Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya

Vision

Become a world class institution of Hindi for promoting knowledge, peace and friendship.

Mission

- *discovering, preserving and disseminating knowledge of Hindi in its major facets i.e. Language, Literature, Translation and Interpretation, in India and abroad,*
- *facilitating the creative spirit and building a culture of broad inquiry, dialogue and interdisciplinary collaboration,*
- *promoting study of modern aspects of knowledge (i.e. Humanities & Social Sciences, Education, Culture, Law, Science, Technology) and their implications through Hindi,*
- *empowering Hindi for higher studies and professional development by creating ICT based facilities, and*
- *attracting and retaining diverse talents in relevant fields.*

SOME BASIC FACTS

Schools approved by the Visitor: 1.Language, 2.Literature, 3.Culture, 4.Translation & Interpretation, 5. Humanities & Social Sciences, 6.Education, 7.Management and 8. Law*

* Yet to start

Wardha campus : 2002 ; **Total Area** : 212 Acres

Departments : 27, **Courses:** 107

Regional Centers : Allahabad & Kolkata

Students: 1824 (As on 31.03.2017) ; **Foreign students**: 74

Writer in Residence/Fellows Program : 11

Faculty Strength: 81 (+vacant 24); **Adjunct Professor** : 1

Foreign Faculty(ICCR Fellow): 1

Non Teaching staff : 94 (+33 vacant)

COURSES

Ph.D.	: **09**	M.Phil.	: **14**	M.A.	: **23**	UG	: **09**
PG Diploma	: **22**	Diploma	: **13**	Advance Diploma	: **08**	Certificate	: **09**

Total : 107

RECENT ACADEMIC ACHIEVEMENTS

- **New Faculty Recruited** : 22 ; CAS promotions : 8
- **New Courses**: M.A. in Sanskrit, Marathi, Urdu, English; Psychology, MBA, B.Ed, M.Ed., B.Ed.- M.Ed. (Integrated). B.Voc.
- **CBCS** implemented.
- **University Publications**:(A)Printed Journals:3; E-Journals:3 (B)Books : 17
- **Seminars/workshop/refresher courses**: 58
- **Softwares Developed**: Saksham, Aacharya, I browser, Kushal, Prakhar, Unidev .
- **hindisamay.com** web portal with 7 lac pages.6000 hits per day
- **e-PG Pathashala**: 280 modules for Hindi (Rs. 49 Lacs)
- **Kendriya Vidyalaya** (up to 7th grade; 250 students)
- **Community College :** Diploma in Textile Engineering

DIGITAL INITIATIVES-1

Digital Content developed Under E-PG PATHSHALA Program Funded By UGC : subject : Hindi

Principal Investigator (PI) -Prof. Girishwar Misra, Vice Chacellor, MGAHV Co-Principal Investigator(Co-PI) -Prof. Anand Vardhan Sharma, Pro VC MGAHV				
Sl.	Papers	Co-ordinator	Units	Remarks
1-	AadhunikHindi Kavir-1	Prof. Chittaranjan Mishra	40	Uploaded
2-	Madyakaleen Kavita-1	Prof. K K Singh	40	Uploaded
3-	Kathetar Sahitya	Prof. Suraj Paliwal	40	Uploaded
4-	Natak Aur Rangmanch	Prof. Ramesh Gautam	40	Under process
5-	Bhasha Vigyan	Prof. Umashankar Upadhyaya	40	Under process
6-	Hindi Pradeson Ka Lok Sahitya	Prof. Devraj	40	Uploaded
7-	Bhartiya Kavyashastra	Prof. H P Shukla	40	Uploaded

DIGITAL INITIATIVES-2

ESTABLISHMENT OF LILA

- Laboratory in Informatics for the Liberal Arts (LILA) was established in the year 2000 to support all the IT related Teaching, Learning, Research and extension activities of the University.
- It provides computer and information technology facilities to the students and researchers.
- The lab developed various office automation tools for Establishment, Finance, Library, Schools, Centers and various departments of this university.
- The maintenance and upgradations of the

DIGITAL INITIATIVES-2

ACHIEVEMENTS OF LILA

- **Cyber Campus** : Running 1GBPS line in university
- **E-Resources**: Different e-journals are made available on **E-resources** link of **hindivishwa.org**
- **EDUROM server** installed in university campus to support Login ID and Password for internet globally.
- **D-space Server** for the researchers to upload their research abstract and Thesis and connected with NDL.

In house softwares developed by LILA

- Payroll System
- Departmental Library Management Software
- Inventory System (for Store and Purchase Department)
- Development and update of university website=

DIGITAL INITIATIVES-3

HINDI SAMAY DOT COM (www.hindisamay.com)

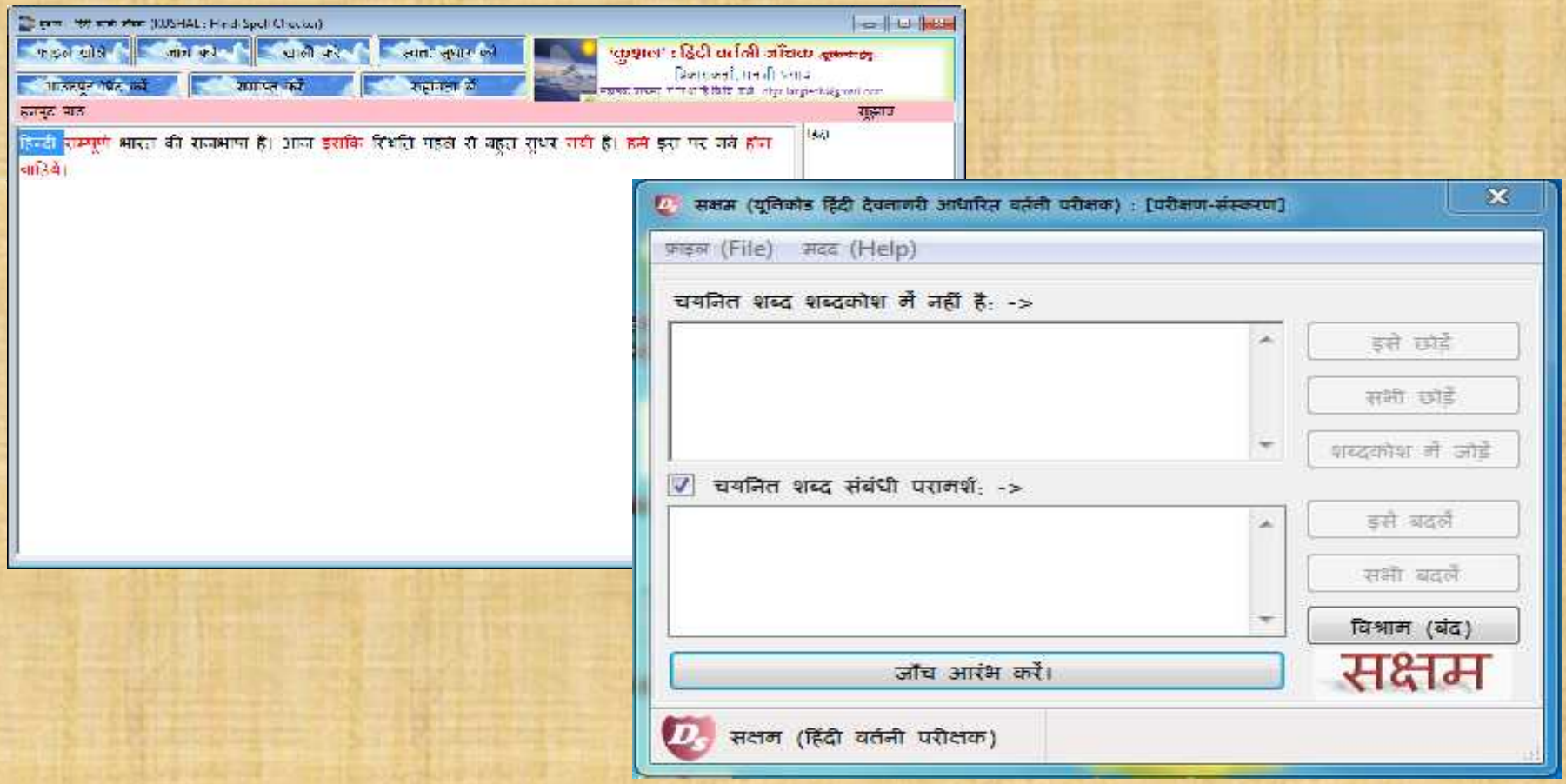
- One of the most popular website searched by Hindi readers
- More than 6 Lacs pages uploaded on this website.
- According to Google analytic at least 5-6 Thousand persons searched this website everyday.
- This website contains various forms of Hindi literature and it is an authentic source for



DIGITAL INITIATIVES-4

SOFTWARE DEVELOPMENT

- Spell checker for Hindi : Kushal, Saksham
- Font convertor : Prakhar



DIGITAL INITIATIVES-5

Aaiye Hindi Sikhe Series For Foreign Students



DIGITAL INITIATIVES-6

Recording of Various Lectures Programmes And Discussions & Uploading on Public Domain

मानव संसाधन विकास राज्यमंत्री, भारत सरकार, डॉ महेंद्र नाथ पाण्डेय के साथ बातचीत



समय संवाद मे - अच्युतानंद मिश्र पूर्व कुलपति माखनलाल चतुर्वेदी राष्ट्रीय पत्रकारिता विश्वविद्यालय भोपाल के साथ बातचीत



DIGITAL INITIATIVES-7

Uploading of Various Curriculum in Hindi Language (B.Ed and Management programmes) on our website



DIGITAL INITIATIVES-8

Recording and Uploading of Prose and Poetry Recited By Renowned Writers and other interviews

समय संवाद : समकालीन कविता का परिदृश्य



डॉ. अमिताभ शंकर राय चौधरी, साहित्यकार के द्वारा कहानी 'कसूर' का पाठ



मीडिया संवाद : ललित परिमू फिल्म अभिनेता



भोजपुरी - हिंदी के कवि प्रकाश उदय का कविता पाठ



DIGITAL INITIATIVES-9

Maintaining and Daily Update of University Website



DIGITAL INITIATIVES-10

Online Admission and Recruitment Process

महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय,
वर्धा

Contact Us | Student Login | Admin Login | Registratic

Student Login

LOGIN

Email Id

Enter Password

LOGIN

STUDENT REGISTER

Check How to fill the online application form



For any queries mail us at : ddemgahv@gmail.com /
Contact : 18002331575

DIGITAL INITIATIVES-11

Compulsory Computer Education for all students of University



OTHER INITIATIVES-12

- Fully wi-fi Campus
- E-Magazines : Nimitta, Anusrijan
- Successful Celebration of Digital India Week
- Production of Documentaries and Short Films.
- Lectures on Journalism and Research Methodology.





OTHER INITIATIVES-12

Regular publication of two magazines named : Bahuvachan and Pustakvarta



Publication of Samaj Vigyan Kosh and Wardha Shabd Kosh






महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय
Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya
धन्यवाद
महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय
दूतवाक्यम्
30.12.2016

Mizoram University (A Central University) , Mizoram

Digital Initiatives

Initiatives taken in the field of digitization in Mizoram University

A. Campus Connectivity:

1. The University has OFC based campus LAN with more than 1200 nodes.
2. The University is included in MHRD funded full Campus Wifi project and necessary actions such as site survey, network design, placing P.O, etc. had been taken. Delivery of network equipment by the vendors is awaited.
3. The University is utilizing 1gbps Internet connection from NKN.

B. Office Automation:

1. Finance department is also computerized. Cashless transaction had been implemented in the university.
2. Health Centre of the University had been computerized. Doctor's Prescription, issue of medicine, inventory, etc. are done through the system. Patients can see their prescription records and laboratory test results through campus LAN.
3. Employee Service Books are also maintained in electronic formats and employee can view and update personal fields in the service book through employee self-portal. Online leave application and approval has been introduced for all the employees. Online attendance submission for all employees is also in use. Using mobile android apps, employee can also view service book and apply leave.

4. Bulk SMS messaging system for giving information to employees and students is implemented.
5. Examination department is computerized. Pre-examination works, result processing and online result publishing is managed by web-based Exam Software.
6. As per MHRD instruction, admission to all courses is done in online mode only. Online fee payment is incorporated in Admission portal.
7. Management of university hostels is also computerized. Hostel authorities can generate MIS in various formats.
8. Document Management System is in use, in which different departments/sections stored soft copies of their documents, which can be accessible only by permitted employees.
9. Online PBAS management for teachers and online students feedback system (IQAC) is also implemented.

C. Academic Activities:

1. e-Learning module has been developed as part of the University Management System (UMS) and it is ready for use by teachers and students.
2. Students are provided login accounts to UMS and they can view class attendance, exam marks, etc.
3. The University is actively participating in IIRS Outreach Programmes through A-View software.
4. Using DSpace software, all PhD and MPhils dissertations are made accessible within the campus.
5. The university is registered in National Digital Library (NDL) and all faculty members had been registered as users in the system.

6. NPTEL videos lectures and tutorials are downloaded and made available for access in university Intranet.
7. Teachers are utilizing URKUND Antiplagiarism software provided by INFLIBNET Centre.
8. The University has taken initiatives in NAD and is in the final stage for signing of MoU with service provider.
9. The Mizoram University wishes to share the effective and useful use of Shodhganga depositories in particular the Theses available in the country. The students and teachers are using the contents available at the portal which is well linked to the Mizoram University website.

D. Central Library

1. The entire library holdings have been made available in machine readable catalogue and computerized bibliographic information of library holdings have been made available for users' searching throughout the campus through Local Area Network (intranet) using WebOPAC.
2. Automated circulation system using barcode technology provides easy and prompt service to the users.
3. Digitization of Mizoram University's own documents and publications for setting up of an 'Institutional Repository'. The repository provides free access to all types of institutional research outputs within the campus network (Intranet).

4. Computerized Braille System for blind students.
5. Electro-magnetic and Radio Frequency Identification (RFID) Library management system for identification, security, tracking and automated handling of Library materials had been implemented.
6. Existing CD/DVD contents along with the bibliographic record of the books is appended. This is made available for the users to easily access the digital data contents from WebOPAC throughout the campus network (Intranet).
7. RFID Proximity Visitors Attendance System had been introduced and implemented to replace the manual hand written Visitor's Registers.
8. Library upgraded its existing Library Management Software by integrating an SMS & E-mail Alert System. The new system sent SMS & Email alert for every transaction to the users i.e. issue, return, renewal, etc of books with necessary information. For overdue books, reminder is sent to the user along with the fine amount.

Thank You..

Nagaland University (A Central University)
, Nagaland

NAGALAND UNIVERSITY

Digital Initiatives for Furthering Higher Education

- As an Institution of Higher Education, Nagaland University is constantly striving towards digitization for providing easy and cost-effective access to all stakeholders

- Following are some of the initiatives taken:-

Academics

- 100% online submission of applications for admission introduced in the University from Academic Session 2017-18
- Process including payment of fees done online

Finance

- Accounts & Payroll Management has been digitized with the help of Spectra Consultancy *Pvt. Ltd.*
- Cashbook, ledger, cash bank summary *etc* automated
- 100% online payment for admission & fees for various examinations

Classroom Teaching

- Departments use Internet facility to extract and transmit up-to-date information in classroom teachings
- Smart boards are used in the classrooms







Video Conferencing

- Video conferencing facility is available at Headquarters, Lumami & Medziphema campus (SASRD)
- Staff and students are able to take part in interactive programmes organised by Govt. of India
- Efforts are on to provide video conferencing facility in Kohima campus (Meriema)

Internet Connectivity





- All academic departments and administrative sections at Headquarters, Lumami are connected with 1Gbps internet (BSNL/NKN)
- All hostels (boys & girls) in Headquarters, Lumami have access to 24x7 internet
- 2 Internet Labs are made accessible to staff & students during office hours
- Work on Wi-fi currently underway in all campuses

Library







- Has access to e-journals from two consortia: Shodhsindhu consortium & DBT delcon consortium carrying latest literature on different subjects for faculty and students
- Digital repository hosting the theses produced by the university started
- Library fully automated with RFID technology
- Library records/catalogues are accessible across the campus network
- Staff and students are able to browse the Internet in the library

Thank You

Central University Of Orissa ,Koraput

WELCOME



PROFESSOR SACHIDANANDA MOHANTY
VICE-CHANCELLOR

CENTRAL UNIVERSITY OF ORISSA, KORAPUT

A. DIGITAL INITIATIVE

Examination

The following measures have been taken;

- Process initiated for issue of digitalized grade sheet and certificate through NAD.

- Necessary information as per requirement of NAD regarding the different programmes offered by the University, duration of the course, pattern of the examination, forwarding of the grade sheet etc. have been submitted to NSDL.

Finance

- All payment to the suppliers/other agencies through RTGS/NEFT.

- Academic receipts like fee from the students as tuition fees, examination fees etc. are collected through SBI e-collect mode.

B.TEACHING / LEARNING PROCESS

Innovative Methods

- Small classes
- Tutorial Methods
- ICT mode of teaching
- Teaching at the community level
- Emphasis on craft and aesthetic education, interdisciplinary approach
- Teaching with the help of game and case studies
- Project based internship education
- Seminar method of student participation
- Course evaluation by students
- Syllabus revision with the help of Alumni
- Group discussion

C. IMPROVEMENT OF ADMINISTRATION

- Establishment and Strengthening of Grievance Redressal Mechanism
- Strengthening of Internal Complaints Committee (ICC) for gender awareness and gender justice
- Implementation of on-line RTI
- Compliance to the MHRD and UGC direction regarding on-line portal
- Timely compliance to the Audit queries

D. MAJOR FOR PROMOTING RESEARCH

- Encouragement of faculty for project grants
- Financial support to the students for research
- Suitable leave to carry out research
- MoU with industry such as HAL and NALCO for promoting research
- Encouraging faculty to participate national seminar/ conference
- Extra mural lecture for research exposure

E. INVOLVING COMMUNITY FOR IMPROVING LIVELIHOOD

Adoption of Villages

- Education heath care and sanitation
- Lecture on skill development programme
- Literacy campaign

Swacch Bharat Abhiyan

- Enhance awareness for hygiene and cleanliness all around
- Community participation and student involvement
- Hostel cleanliness drive
- Cleanliness in the neighborhood villages
- Clean drinking water and the bore well facility for the villages

E. INVOLVING COMMUNITY FOR IMPROVING LIVELIHOOD

Unnat Bharat Abhiyan

- Five villages adjacent to the University have been adopted
- Involving local people on wage basis several activities were also carried out such as cleaning of weeds and bushes, plantation in the University and its surroundings.
- Local people are working in the Construction, canteen, garden, sanitation and security duty of the University
- health and hygienic awareness programme conducted in the adopted village Rajpalama
- Health check up and awareness camp conducted in the adopted village Chakaraliput
- The art and craft training programme conducted in the Prathamika Sevashram, Rajpalma
- The village cleanliness programme conducted in the adopted village Nuaguda

E. INVOLVING COMMUNITY FOR IMPROVING LIVELIHOOD

- The village cleanliness programme conducted in the adopted village Chakaraliput on 1st February 2016.
- Awareness programme on construction of septic toilets, care for orphan children and provision of housing for all were communicated by folk song in local *desia* dialects and street play.
- The University provides drinking water facilities by three deep bore well in surrounding villages.
- Electrification, toilet and water facilities provided with the help of District Administration

F. ACTION TAKEN IN REDUCING LEGAL CASES

- Prompt responses to queries and compliances
- Strengthening of the Grievance redressal mechanism
- Monitoring legal cases for swift disposal
- Transparency in selection methods

G. PLANNING FOR FUTURE

Three years ahead

- Filling of the existing vacancies
- Inviting outstanding guest faculty and visiting Professors
- Creation of corpse fund for new teachers
- Encouragement of research culture
- Expanding Industry-Academia interface
- Introduction of new teaching programmes
- Adequate infrastructure

A. PLANNING FOR FUTURE

Seven Years ahead

- Institutional collaboration
- Inter-University mobility
- Creation of research clusters
- Scholarly movement across the nation

Fifteen Years ahead

- Making the University a regional hub in teaching and research
- Making teaching relevant to the community needs
- Majority of the teachers linked to the international grid
- Making the University and outstanding center of excellence

"For the region and for the nation"

CENTRAL UNIVERSITY OF ORISSA, KORAPUT



Guest House of Central University of Orissa at its permanent campus, Sunabeda

Pondicherry University (A Central University) , Puducherry

Digital Initiatives for Higher Education at Pondicherry University

Presented by:

Prof. (Mrs.) ANISA BASHEER KHAN

Vice-Chancellor (Officiating)

Pondicherry University (A Central University),

R V Nagar, Kalapet,

Puducherry - 605014

National Convention on Digital Initiatives for Higher Education, 8-9 July 2017, New Delhi

I. DIGITAL INITIATIVES TO FACILITATE STUDENT ADMISSION, LEARNING AND EVALUATION

1. Admission process

- Online Application Registration Portal Provision for online application fee payment Downloadable hall tickets from the University website.
- Webcam enabled Registration Desk at the Exam Centre for candidate's Hall Ticket Verification & Photo capturing.
- Provision for Biometric enabled thumb impression capture services at the Registration Desk.
- Provision for Video Recording services of the entire test using Webcam at all the Exam Centres.
- Computer based Entrance Examination conducted at about 34 Centres with encrypted question papers.
- Computer based evaluation of Entrance Examination answer scripts and publication of results.
- Generating and publishing selection list and waiting list for facilitating Admissions.
- Provision to download individual score card by the candidates.

2. Payment of fees by online

- Provision to pay the admission fee at the time of admission through Debit/Credit card/Internet banking/Cash payment through Indian Bank challan.
- Provision to pay subsequent semester fees through online using Debit/Credit card/Internet banking/Cash payment through Indian Bank challan.
- Provision to generate fee receipts.
- Provision to monitor the fees payment by the students of all Depts/Centres.

3. Automation of the Examination process

- Registration of courses for each semester.
- Registration for end semester examination and download hall ticket
- Provision to consolidate the results
- Provision to send the results to Academic Section electronically for issue of Grade Reports

4. Performance evaluation of Teachers by Students

Online mode to collect Students to provide Feedback to the teachers

5. Student Academic Activity Management System (SAMS)

1. Registration of Courses
2. Consent of Teachers
3. Dropping of Courses
4. Submission of Student Registration Particulars & Fee Payment
5. Periodic entering of Internal Assessment Marks
6. Student Evaluation of Teachers
7. Entering of Student Attendance
8. Exam Fee Payment
9. Hall Ticket Generation
10. Entering End Semester Exam Marks
11. Generation of Individual & Consolidated Result
12. Generation of Semester Grade Card

II. INITIATIVES TO CREATE DIGITAL ENVIRONMENT BY FACULTY MEMBERS

1. Use of Learning Management System (LMS) to impart education:

Faculty members of the Department of Computer Science, Chemistry and Electronic Media and Mass Communication, have been using the open source LMS called *MOODLE* (Modular Object Oriented Dynamic Learning Environment), *Edmodo* (free LMS), *Google Class Room* and *Facebook Pages* to have seamless interaction with the students

2. The Media and Communication Programme offers course on E-Content Development:

Students pursuing MSc Electronic Media Programme, are being offered a course on E-Content Development and the successful students are placed in e-Learning industries as instructional designers and courseware developers. Every student enrolled for this course is being trained to produce a professional interactive e-content.

3. Class room lectures by senior faculty members have been captured effectively:

The Media Production Centre in capturing great Master Classes in videos, so that these could be used as a learning materials for the students who have no access to quality teaching resources.

4. Faculty contribution to e-PG Pathasala: Faculty members have been contributing content to e-PG Pathshala on Library and Information Science, Journalism, Communication and Food Science.

5. Towards contributing courses for MOOC: Competent faculty members are in the process of developing e-content in the domain of their expertise for Massive Open Online Course (MOOCs) has been sent to MHRD. A proposal for creating 10 courses for MOOCs such as in Plant Biotechnology, Genomics, Marine Biodiversity etc., are under progress

III. INITIATIVES TO IMPART AND DEVELOP COURSE CURRICULUM

1. Introduction to CBCS:

The University offers all its Courses/Programme under Choice Based Credit System for the University Students. Similarly, all the Engineering Courses (BTech and MTech) and Arts and Science (BA/BCom/BSc and MA/MSc/Mcom) offered in the affiliated Colleges are offered under Choice Based Credit System only.

2. Documentation of Certificates:

- Digitalizing the Examination related documents (old Registers and Certificates) and preserving the valuable documents.
- Examination Wing is in the process to scan all the Confidential Works (Question Paper related works) to enable them digitally available

3. National Academic Depository:

As part of the Digitalization Net Work of MHRD has entered into Agreement with the CDSL/VDSL in uploading the Statement of Marks, Consolidated Statement of Marks, Provisional Certificate and the Degree Certificate of all the Students.

IV. DIGITIAL INITIATIVES IN THE UNIVERSITY CAMPUS

	Digitization activity
1. Library	➢ MOU with INFLIBNET to upload the completely digitized Theses ➢ University is represented in the form of Shodhganga ETD committee ➢ **Value Added e-Services in Library:** OPAC, e-alerts, Referral Service, Citation Analysis, Subject Gateways, Open Sources, Document Delivery Service, Product Presentations and free trials, Web 2.0 Applications, Exhibitions, Digital Library & E-resources, Online Tutorials, Conferences/Seminars/Workshops, Webinars, Student Support "Earn While You Learn" Scheme, Remote Login, Institutional Repository, Computing Facility for Visually Challenged, Ask the Librarian Service & Discovery Service are available. Periodic update of Audio & Video galleries is being carried out in the library e sources. Louis Braille Centre available in the library enables the e learning process for visually challenged
2. Project Cell	➢ digitized Project cell to provide a single window system for the online application of the proposal as well as to transfer and management of funds. ➢ Receipt of the funds are updated when the investigator receives the funds from the funding agency. ➢ faculty members can monitor the project related activities and the real time stages of the processing.
3. **Online Leave Management System**	➢ online system is to bring down the time delay in leave application and approval. It also enhances transparency of leave records for the access of the employee anytime and anywhere.

	Digitization activity
4. EDUSAT Programs coordinated at Pondicherry University	➢ EDUSAT based distance learning program is also called the "e-learning" program enables the student avails the content of the course through the internet, stream the lectures using the internet and provides direct interaction with the teacher/expert when the lecture is delivered using EDUSAT satellite communication..
5. VIDWAN	A Nodal Officer for a NMEICT assisted project on "VIDWAN: Expert Database and National Researchers Network" for creating strong network of experts for various purpose of Govt. of India, initiated by the Information and Library Network (INFLIBNET) Centre.
6. Digitalizing the activities of the Finance Wing	➢ University Employees the salary part of the Finance Section is already computerized ➢ Employees can download Form-16 from the Pondicherry University Website on their own.
7. MHRD-Campus Connect Project	➢ Under MHRD program secured Wi-Fi hotspots provided to all the places frequented by the students. ➢ provides an access to the educational and information resources to the faculty and students community on 24x7 basis.
8. National Knowledge Network (NKN)– Project of Govt. of India	➢ NKN enables knowledge/ information sharing thereby establishing collaborative research, development and innovation amongst NKN connected institutes. ➢ NKN facilitates advanced distance learning (Video Conferencing through A – View).

Other digital initiatives in the University Campus:

- Payment of hostel fees through digital banking
- Biometric attendance system for contract and outsourcing personnel
- IP surveillance system/ IP security camera technology available in the campus to monitor the activities
- Employee management system (EMS) – provide the profiles of staff
- Use of Digi-locker facility, Digital India Initiative by GOI – personal storage of space in the cloud to Indian Citizens. Can upload scanned copies of original certificates during admission, recruitment etc.
- 30 Years Annual Report and 03 year Annual Account pdf documents are uploaded in the University website and the link has been available in the MHRD website under MHRD_Annual Reports.

Central University Of Punjab ,Bathinda

Central University of Punjab, Bathinda

the CUPB

AC 'A' Grade accredited (Old Scheme), in 2016

out 1000 students enrolled in 90 academic programmes across 19 Centres

ned 15 national & 3 international MoUs (a) Saskatoon, Canada

(b) Kunming Institute of Botany, Chinese Academy of Sciences &

(c) Xishuangbanna Tropical Botanical Garden, CAS, China

l and timely adherence to all UGC & MHRD guidelines

emics

017-18, through CUCET: For PG programmes : 30,101 applicants for 726 seats : demand ratio of 1:41

For Ph.D. programme : 7,281 applicants for 100 seats : demand ratio of 1:72

807 eligible students (2013-14), 224 (73%) qualified 294 National Tests (95.7%)-Highest in the Country

search students: All get Fellowships from funding agencies

dited with very good research output *h*-index: 18

onvocations held so far; Total Degrees awarded: 476 (including 5 Ph.D.) ; No Backlog of Convocations

ancial support to 122 PG students: (a) Government Scholarships, (b) Internal Resources-(i)Earn-Whi

rn Scheme (ii) Interest-free Loan Facility (iii) Personal financial support to the needy

ulty

ll faculty are Ph.D. & NET qualified at AP level: Ph.D. and NET are essential qualifications

ver 160 Research Projects worth over Rs 24 Crores sanctioned

ST-FIST grant of ~ 2 Crores to two Centers (a) Environmental Science & Technology (

harmaceutical Science & Natural Products

aculty includes DST INSPIRE, DST Young Scientist, Ramalingaswami, Ramanujam, JC Bo

ational Fellows. Mostly with research experience in US, Canada, Germany, Japan, Israel etc.

earch

UPB published 1424 research papers apart from 1311 papers presented in National a

ternational conferences.

orld Class Research Facilities & State-of-Art Infrastructure in more than 24 Labs

dopted 10 villages on health and environment issues

king

IRF rank 65th rank in 2016 and in band 101-150 in 2017

Administration and Finance

YPE/Video Conferencing is used for:

a. Interviews for ex-India applicants for teaching positions

b. Meetings with members of AC/FC/EC who can't visit Bathinda

ometric system used for attendance

line Leave Management System has been implemented

line Complaint System for technical complaints.

rchasing of **e-office manager** software is under process.

cruitment process through online mode**;** SMS & email for communication with candidates

mmunications with faculty & staff mostly through email.

Surveillance in university.

art Card for students/faculty/staff serves as Id card and access to high security zones.

house **University Management System (partially implemented; full operation in proce**

monitory transactions in digital mode. Stood at **8th position in VISAKA in the country.**

opting **National Academic Depository** as per initiative of MHRD

int-of-sale (**POS**) **machines** installed in Finance section; being installed in Mess and Cant

Fully Online Admissions & Counselling

ully online (Perhaps 1st university that has adopted fully online admission mecha

ight from filling of the form by student, correspondence with the university, **Counselling**, **F**
ayment and finally admission were **all online from last two academic sessions.**

Online Examination System

ccessfully introduced the **Online Examination System** which includes the following:
.) Surprise Test *(MCQs on OMR Sheets)* **b.) Terminal exams** *(**online** MCQs)*

has also led to regularity in declaring of results and issuing DMCs apart from posting it
ents. We also are in the process organising convocation within 3-4 four days of declaration
ts from next year.
uccessfully implemented **Automated Result Processing System** from session 2014-15
xamination cell has developed in-house software for **result processing and tabulation**.
rinting of individual DMCs with 100% accuracy**,** with advanced security features.
xamination Web Portal for students for **user-friendly access.**
nline Feedback System on performance of teachers ***(Identity of student not revealed)***
ive Streaming of **Second Convocation** was facilitated.
ive Stream the **Orientation Programme for 2017-18 batch.**

Teaching and Learning

G Paathshala: CUPB is PI for e-PG paathshaala in Environment Science & Techn

lassroom using **Live interactive audio video lectures.**

rocess of adopting

MOOCs

Swayam Prabha channel installed at various locations for knowledge-learning of stud

e-PG Paathshala

nguage Laboratory to improve the communication skills of the students/teachers.

Digital/Technical Support

egular updating of the **University website** with **INTRANET** facility.

odern computer centre with High-end PCs, Work stations & Blade servers etc.

omputer centre with **highly configured systems** and **high-end work stations.**

ntire campus, residential areas, hostels are fully Wi-Fi enabled.

wo lease lines (100 Mbps and 1Gbps NKN Link)

censed several Technical softwares is in use

Community Outreach

rganises **"Computer Literacy Programme** for senior citizens". In 6 batches, 75 sen
izens participated.

nder ***Unnat Bharat Abhyiaan***, students from local schools and colleges visit t
niversity Laboratories, Library etc. and make use of facilities available at CUPB.

rovision of **Soil Health Cards** for rural people (in adopted villages) has been started.

Information dissemination and e-learning

university subscribes to a large number of

E-journals – around 10000

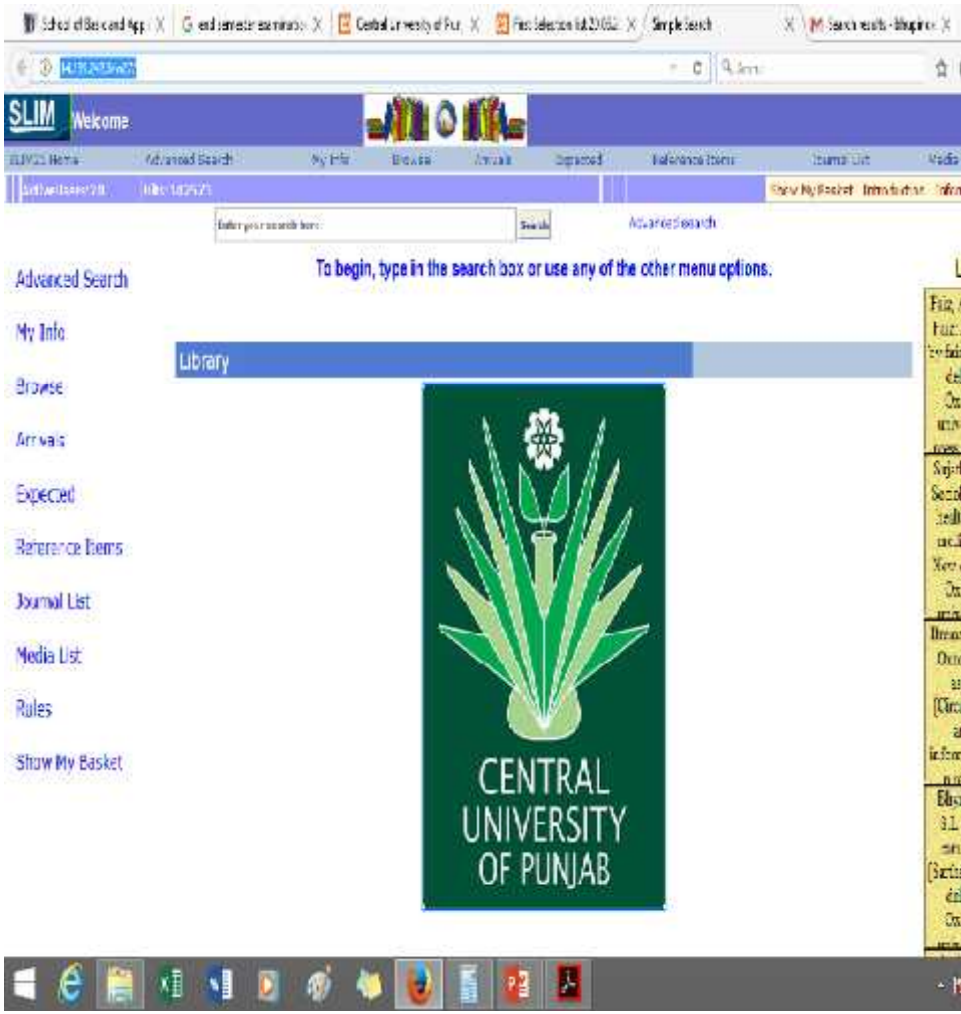
Databases - 20

E-books - 451

Kindle e-books – more than 25000

dle of good quality for students which are ued for 15 days for reading e-books.

Online Public Access catalogue (OPAC) lable for the users through internet ://14.139.242.3/w27/.



CUP-Institutional Repository

Link http://210.212.34.22:8080/xmlui/

The CUPB has created a digital repository for researchers.

It is an on-going activity for publication of e-text by faculty & students. Research papers, PPT, Audio-Video lectures etc. are added regularly.

Relevant documents related to curriculum are preserved in the archive. These are made available to the users through internet.

D-space open source software to support the repository is in use.



YouTube lectures for students

The University has allocated separate 20 computers with internet connectivity in the library for accessing online lectures from you tube.
In order to discourage the access to undesired sites on internet, this facility is restricted only the 20 computers.
It is much in use for online lectures, educational videos, online talks etc.



Other initiatives

- 12 LED TV sets (in hostels, canteens academic blocks etc.) are in use for watching and listening of 32 DTH channels under SWAYAM Prabha programme.
- National Digital Library: All faculty members, researchers and student are registered on NDL for accessing and use of e-resources.
- **Other Online Facilities**

  Grammarly online tool for students to improve writ skills, check grammar and plagiarism.

Fully Automated Library with RFID technology

Because of Automation only 7 employees (including contractual) are managing 18 hrs operation .

Library timings: 8 AM to 2 AM everyday (365 days – expect 3 national holidays). It includes facility for girls students also.

Self Issue/Self Return by the users.

SMS & Email intimation: The borrower are cautioned thrice about t last date of return of books/kindle through SMS and emails to avoid la returns ; There is hardly any late return problem now.

SMS & Email service for information of reserved books is also practiced

Problems/Apprehensions & Suggested Solutions of OER

Problems/Apprehensions	Suggested Solution
r IPR issues, faculty fears uploading their Research pers, PPT, Lectures on public domain.	1. MHRD should create a guidance cell to dispense with the fears in faculty.
culty prefers to publish research papers, patent for tting credit & visibility. Only a few are interested in loading their lectures.	2. Uploading minimum no of PPT, Audio-Video Lectures, field & class notes etc., apart from their usual task of teaching & research be mandatory for every teacher.
ere is no prescribed minimum quality standard for open ucational resources (OER).	3. MHRD must setup a cell to monitor the quality of OER uploaded on IR & prepare some minimum quality assurance guidelines and indicators.
ading on OER in public domain needs very strong server r simultaneous multiple users. This is becoming a nitation.	4. The server of the IR in University need to improve & with UPS. There coul be some minimum financial and technical support for universities for serv & other infrastructure.
culty is not aware of the significance and potential of R.	5. University should apply for own ISSN number which could be used for allocation to OER material (audio-video lectures, ppt, papers, class notes)
e UGC's 4th amendment, Regulation (2016) in category (E): *"Development of e-learning delivery process/ aterials under Research and Academic Contribution"* eds more clarity.	6. MHRD may consider recognizing teacher's contribution to OER equal to th of publication.
many places irrelevant (like unchecked/qualified aterials) has/is being uploaded on institutional pository (IR). This way the space is denied to the evant material.	7. University should have a committee to continuously review & update OE It must also train the faculty & students regarding ➢ IPR ➢ Copyright ➢ Creative Commons Attribution license (https://creativecommons.org/license
IR, dissertations are available on Word/PDF format and e students get attracted to copy/ paste & plagiarize.	8. The material uploaded on IR should be prepared on PDF image file.

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NTRAL UNIVERSITY OF RAJASTH



Digital and Other Initiatives/Reforms

OBJECTIVE

USE OF TECHNOLOGY FOR ENHANCING ACCESS AND QUALITY

Clearing House and Content Delivery of Online courses

Indian Language Annotation

Learners Management

Feedback Analytics

Online admission and Counselling

Leveraging NAD

CONTENT CLEARING HOUSE (OER)

- Very Large number of online courses on certain subjects
- Objective is to help learner to navigate through the vast resources of online courses
- To help the learners and trainers to locate right material from the repository of online courses
- It is to develop a Metadata Repository of online materials
- Students centric Learning trajectories
- Potentially, Can be dovetailed with SWAYAM

INDIAN LANGUAGE ANNOTATION

- Subtitling online courses in Indian Language
- Translitering and translating
- Audio and Text
- Filling in gaps
- Remixing
- Integration

LEARNERS MANAGEMENT

- Use of virtual classroom for online learners management
- Course instructor and the students register to a virtual classro
- Teachers posts the slides, lecture notes, syllabi etc.
- Teacher and student engage in discussion
- Assignments are handled at this stage
- Student can ask question privately or publicly
- Teacher can direct the explanation to a group or individually

INTEGRATING WITH CURRICULA

- Integrating online courses with curricula
- Inter-institutional Transfer of Credits
- Programmes with Fractal Credits
- Credit Framework
- Adoptation of MOOCs

INTEGRATING ONLINE COURSES IN CURRIC

Departments identify courses that are offered online to be part of curricula.

Modus Operandi

- A teacher TT locates an Online course CC that can be part of the subject that he/she is currently teaching
- School Board to approve the content with credits
- All students of course CC register for the course, time table is suitably adjusted
- A student can either gets the certificate from the course provider (on payment) or TT conducts t that portion of the course
- Total credits of the programme is not altered
- Such courses to be officially recognized by AC and Mark sheet will carry this information
- There is upper limit on the number of credits earnt through this process. 3 credits per semester

STUDENTS FEEDBACK ANALYTICS

- A robust software for student feedback collection
- Use of sophisticated data analytics technology to analyse the feedback
- Technology to design curriculum
- Provide infrastructure
- Improve teaching

SPLIT-SITE INTEGRATED STUDIES

- Leveraging Technology
- Leveraging the local affiliating institutions
- Leveraging the experience teachers for foundational studies
- Next-door facilities to rural population

ONLINE ADMISSION AND COUNSELLIN

Admission

- CUCET
- 10 Universities
- 98 Centres
- More than 100000 candidates
- Flawless timely management of entrance examination

Counselling

- Physical presence is avoided
- Based on user preferences
- Online cashless payment
- Less efforts and time

NEW INITITATIVES
CYBER-PHYSICAL SYSTEM

cience and engineering of CPS are interdisciplinary in nature, requiring exp
mputer science, engineering, mathematics, statistics, and the full spectrum
cal sciences.

urpose of the this program is to provide students with an interdisciplinary
ation that cannot be accomplished via other programs that concentrate on
idual engineering domains.

e new skills are especially important in new applications such as **smart gri**
nected vehicles, and medical device

M.SC. IN DIGITAL SOCIETY

des with a rigorous introduction to the sociological study of digital society and digi
e.

ore theoretical and methodological issues that arise when sociologists investigate th
sing prevalence of digital technology, digital infrastructure,

- A foreground the sociological analysis of digital technology, digital media, and the social relations they enge
- To foster critical analysis of the social, economic, and political conditions that give rise to digital technology and data infrastructures.
- To engage with, as well as critically assess, digital research tools and platforms via the necessary methodolo training.
- A focused academic background in social and cultural theory, as relevant to the study of digital society.
- To become conversant in the digital research methods relevant to their topic of study, with an emphasis on c the ability to assess the social impact of such research.
- To engage with ethical issues that are raised by digital sociological work

INDUSTRY NURTURED PROGRAMMES
BIG DATA ANALYTICS

- TCS supported
- Faculty Salary
- Lab
- Internship
- Employment
- Big Data Analytics

DIGITAL ECONOMY
VISAKA

- VISAKA
  - Vittiya Sakshyarata Abhiyaan
- Objectives
  - To make CURAJ campus cash-free
  - To make the society to operate with minimal use of currency


Thank You.

Central University Of South Bihar

Central University of South Bihar

(Established by an Act of Parliament)

(NAAC Accredited Grade 'A' University)

DIGITAL INITIATIVES/ REFORMS UNDERTAKEN BY CENTRAL UNIVERSITY OF SOUTH BIHAR

- Central University of South Bihar has extended its support to Digital India initiatives and has kept its commitment to support digitization of every branch of its functioning like Academics, Examinations, Administration and Finance & Account.

- The University is in the process to align its functioning in tune with the National Mission and Vision under the banners of Digital India.



STUDY WEBS OF ACTIVE LEARNING FOR YOUNG ASPIRING MINDS (SWAYAM)

- In pursuance of *UGC (Credit Framework for Online Learning Courses through SWAYAM) Regulation, 2016* Central University of South Bihar in the **15th meeting of its Academic Council held on 19th August, 2016** vide **Resolution No. 31/AC-15/16** resolved to implement it and accordingly all the Head of Departments/Centres have been entrusted to identify the courses from SWAYAM Platform to be offered under different programmes keeping in view of their academic requirements.

NATIONAL DIGITAL LIBRARY (NDL)

- After the launch of NDL project, Central University of South Bihar has registered all its members in the NDL Portal.

- Each member has received User ID and Password to access the resources.

- Instructional course has also been organized in the University to acquaint students about the resources and services of the National Digital Library.

NATIONAL ACADEMIC DEPOSITORY (NAD)

- In pursuance of Government of India initiatives for digitalisation of academic awards to be known as National Academic Depository (NAD), Central University of South Bihar has established a NAD Cell and appointed a Nodal Officer for execution of Service Level Agreement with NSDL Database Management Ltd. (NDML).

- The University is in the process to enter into the agreement with NDML.

E-SHODH SINDHU CONSORTIUM

- Being a member of *E-Shodh Sindhu Consortium*, more than 8000 e-journals are available to the Central University of South Bihar Library from Annual Reviews, *Springer*, *Taylor & Francis*, *Wiley-Blackwell*, *Oxford University Press*, *Project Muse*, *Cambridge University Press*, *JSTOR and Science Direct [10 subject collection from Elsevier Inc.]*.

CASHLESS TRANSACTION DRIVE

- As part of promoting cashless transactions and converting India into less-cash society Central University of South Bihar within a short span of time not only adopted cashless transactions for almost all types of payments including depositions of fee by the students but also ran a massive awareness campaign for "Cashless India" from 12th December, 2016 which continued till 31st March, 2017.

- Under this drive the students visited different areas in Patna and Gaya and made people aware about digital transaction through street plays, posters, banners, slogans and quiz competition. The groups of students also held the helpdesk at nearby banks for making the customers aware about the digital transaction.

- Central University of South Bihar secured its place among the top ten (10) Institutions of the country in the number of registered participants under Vittiya Saksharata Abhiyan (VISAKA).

National Convention on Digital Initiatives for Higher Education



UNIVERSITY OF ALLAHABAD

8th-10th July, 2017



Brief Profile of the University

- University was established in 1887
- Campus Area (in acres): 259.54 acres
- 33 (Departments) and 18 (Centres)
- 11 Constituent Colleges and 01 Constituent Institute.
- Number of Students on rolls: 23703
- Sanctioned Teaching positions: 852
- Filled up Teaching positions: 310
- Sanctioned Non-Teaching positions: 1386
- Filled up Non-Teaching positions: 964
- Teacher-Student Ratio (on sanctioned strength): 1:27.8
- Teacher-Student Ratio (on existing strength): 1:76.5
- Teacher-Non-Teaching Ratio: 1:1.6

Area- 1
Innovative Methods for Enhancing Teaching-Learning Process

- **Choice Based Credit System:** The University has adopted the CBCS in all PG courses with standard credit structure. This has been successfully adopted with help of technology and digital facilitation.
- **Semester System:** The University has adopted Semester system to make it more student and learning friendly. Gradually, the system is getting tuned to effective teaching and learning.
- **Academic Calendar:** For the first time, the University adopted Academic Calendar having all academic activities planned and is being implemented successfully since the Academic Session 2016-17 onwards.
- **Distinguished Lecture series:** The Distinguished Lecture Series is another innovative initiative undertaken. Distinguished academics and experts are being invited regularly for the benefit of the faculty and students.
- **Annual Academic Report:** University Annual Report is being regularly prepared and has been uploaded on the University **with total trenchancy.**
- **Revision and Updation of the Syllabi:** All departments and centres have revised and updated their syllabi after a long gap.

Area-1
Innovative Methods for Enhancing Teaching-Learning Process

- **Wi-fi and LAN Enabled Campus:** Academic Units of the University and hostels Wi-Fi and LAN Enabled under the National Knowledge Network (NKN) and Digital India Initiative of Government of India.
- **ONLINE Entrance Test:** University has initiated ONLINE Entrance Test since 2016-17 academic session to increase catchment and outreach.
- **National Digital Library:** E-Library has been initiated. More than 29,000 books have been digitized; e-Shodh-Singhu, Shodh-Ganga and Shodh-Gangotri and anti-plagiarism software have been made available to all faculty and students in accordance with UGC Minimum Standards and Procedure for award of M.Phil./ Ph.d. Degree Regulation 2009; ONLINE Books and Research journals through INFLIBNET though UGC-Infonet Digital Library Consortium; e-Pathshala Portal has been launched in the University library.
- **Library opens all on all weekdays:** The University Central Library used to remain closed on Sundays and Holidays. Now, it is open all seven days from 8:00 AM to 9.:00 PM on all working days and from 10:00 AM to 6:00 PM on Sundays and Holidays.

Area-1
Innovative Methods for Enhancing Teaching-Learning Process

- **Promotion of Cultural Activities:** There was almost complete absence of cultural activities in the University. A Central Cultural Committee has been constituted and is highly active to promote cultural activities in the campus.
- **Sports Board:** Likewise, sports activities were also absent. A broad based Sports Board has been constituted, which organizes several sports activities for the students and faculty.
- **G-CASH:** Gender Committee against Sexual Harassment (G-CASH) has been constituted in accordance with the Hon'ble Supreme Court Guidelines. Earlier,
- **Massive Open Online Courses (MOOCs) and SWAYAM Platform and Smart Classrooms using Audio-Visual Facilities:** University has set up smart classroom with audio-visual facilities so as to make teaching and learning more practical based and effective.
- **Dedicated PG Courses on Digitization:** University offers PG courses in E-commerce and IT in different centre, particularly in the Faculty of Commerce
- **E-Technology Centre:** A state-of-art E-technology Centre has been set up with more than one hundred computer system, which is successfully being used by faculty and students.

Area-1
Innovative Methods for Enhancing Teaching-Learning Process

- **Filling of the Teaching Posts:** The University has already advertised teaching posts and screening of applications is under process.
- **Reorganization of Academic Unit in Schools:** Academic units have been reorganized into schools and centres to make the University in tune with global standards.
- **CAS for Teachers in University and the Constituent Colleges:** Career Advancement Schemes for teachers has been implemented in the University and its constituent colleges. This was pending since long in the University.
- **PG Course in Constituent Colleges:** Constituent colleges were given permission to start PG courses. This is for the first time that such permission has been granted to the colleges.
- **Violence Free Campus:** Recurrent violence was serious problem in the University that was hampering smooth functioning of the system. With determined will and pro-active administration, campus is now violence free. It is to be noted that not a single academic day was lost even during the unnecessary agitation by some anti-social elements in connivance with some vested interest student leaders.

Area-2
Innovative in Improving the Administration of Institution

- **ONLINE Recruitment:** Recruitment process has been made ONLINE for both teaching and non-teaching vacancies.
- **Electronic Surveillance:** CCTV Surveillance System has been put in place, which is linked to Digital India Initiative of the Government of India.
- **ONLINE Services:** All forms / applications / formats/ proforma etc related to faculty, students, and employees are made available ONLINE so as to enable speedy disposal.
- **E-governance:** Registry and its record keeping are being done fully digitized.
- **National Academic Depository:** NAD is being set up in the University to facilitate issuance, storage and verification of academic awards. A dedicated NAD Nodal Officer has been appointed to implements its mandate effectively.
- **Up-dated Website:** University Website has re-done it official Website for better outreach and access to make University Web-enabled. Bhattcharya Hall/Darbhanga Hall, North Hall,

Area-2
Innovative in Improving the Administration of Institution

- **Bio-Metric Attendance System:** The University has introduced Bio-metric attendance system for the employees to maintain discipline in the administration.
- **Decriminalization of Hostels:** There were serious problems in the hostels as these were illegally occupied by local criminals and anti-social elements for last forty years. Hostels have completely been vacated and new allotment would be made strictly to bonafide students only.
- **Filling of the Non-teaching Posts:** This process is also underway and soon all posts would be filled-in.
- **Electronic Dispatch Register:** For the first time, electronic dispatch register has been introduced for quick file tracking.

Area-3
Digitization Initiatives in the field of Finance

- **ONLINE Fee:** University has initiated complete ONLINE submission of fees from the 2017-18 session.
- **Cashless Financial Transactions**: the University has moved to complete cashless financial transaction and VISAKA procedure are being followed.
- **E-Procurement:** E-Procurement of Goods & Service through E-Tendering and E-Publishing in accordance with GFR 2017 is being implemented since 2015 onwards in the University to ensure effective and transparent delivery of works.
- **Skilling the Unskilled:** Training programme for procurement of goods and service through Government Electronic Market (GeM) to the employees of the University are being carried out for better governance.
- **Electronic Maintenance of Expenditure:** Daily Statement of Expenditure is digitally maintained daily for quick overview.

Area-3
Digitization Initiatives in the field of Finance

- **Transparency in Finance Plugged Irregularities:** Cashless financial transaction not only facilitates the entire system but also revealed various irregularities and ill-practices. For example, there was more than Rupees 40 Crores (Rupees Forty Crores) loan and advances pending on the employees and faculty on the University. For the first time, loan recovery process has been initiated and Rupees 6.90 Crores (Rupees Six Crores Ninety Lakh) have been recovered. Likewise, there was deficit of Rupees 9.12 Crores (Rupees Nine Crores and Twelve Lakh) and deficit on LTC account was Rupees 78.28 (Rupees Seventy Eight Lakh and Twenty Eight Thousand). It is estimated that more than Rupees 200 Crores (Rupees Two Hundred Crores) have been siphoned off just through wrong pay fixation during last so many years. It must be noted that all such financial irregularities surfaced ONLY through cashless financial transaction and transparency in the system.

Area-4
Measures for Promoting Research

- **DST-FIST Scheme:** All the eligible departments in the Faculty of Science have applied under the DST-FIST Scheme for infra-structural and research facilities development.
- DST-PURSE Scheme: DST has approved institutional funding under the DST-PURSE Scheme for promotion of research in science.
- **Incentivization Scheme**: This scheme has been put in place for awarding the meritorious students and faculty members.
- **MoUs with International and National Institutions:** Exchange and Collaborative Research of mutual interest are being undertaken with national and international institutions like University of Heidelberg and other institutions of repute.
- **Support for International and National Conferences:** Travel support is provided to the faculty and students for participating in the national and international conferences in India and abroad. In addition, the University also supports organization of such conferences in various academic units.

Area-4
Measures for Promoting Research

- **Post-Doctoral Fellowship:** The University has approved awarding the Post-Doctoral Fellowship to exceptional researchers and its implementation is underway.
- **Research and Development Cell:** Research and Development Cell is actively engaged for overall promotion of research in various academic units of the University and its constituent colleges.
- **Centre for Excellence:** Centre for Behavioral and Cognitive Sciences (CBCS) has been working as Centre for Excellence in this very specialized field of stuey.
- Special Assistance Programme (SAP): There are nine departments supported under the UGC-SAP Programme of different phases.
- **Centre for Diaspora Studies:** A very innovative and relevant Centre for Diaspora Studies has been set up in the University. It is one of its kinds Centre in the entire region that would focus on research on different aspects of Diaspora and its intertwined and nuanced dynamics.

Area-4
Measures for Promoting Research

- **Centre for South Asian Studies:** South Asian Studies is far more important due to its strategic and political importance. The University has set up a Centre for South Asian Studies to promote research in this field.
- **Design and Innovation Centre:** University has set up a Design and Innovation Centre as SPOKE Partner in collaboration with the IIT-BHU, Varanasi.
- **Brainstorming Sessions for Research:** Recently, a Brainstorming Session was held with DST, DBT, MHRD and other ministries in the University that chalked out plan for future research in the field of science and technology. All departments are being encouraged to apply for research grant from these institutions and promote fundamental and innovative research among faculty and students.

Major Efforts at Involving with the Community

- **University-Industry Interface:** A University – Industry Interface system has been put up in place to increase employment and intake from the University.
- **Promotion of Renewable Energy:**
- **Adopt a Village:** Centre for Rural Technology has adopted few villages in the nearby areas, where they organize various activities.
- **Development Lab:** Centre for Development Studies has initiated an innovative step for setting up a Development Lab in the rural areas for practical work and internship.
- **Seasonal Monsoon Forecast to local farmers in vernaculars:** Such forecast have been made available to the local farmers for their benefits by the Centre for Atmospheric and Ocean Science of the University.

Area-5
Major Efforts at Involving with the Community

- **University-Industry Interface:** A University – Industry Interface system has been put up in place to increase employment and intake from the University.
- **Promotion of Renewable Energy:** University promotes encouragement to the renewable energy in the campus.
- **Adopt a Village:** Centre for Rural Technology has adopted few villages in the nearby areas, where they organize various activities.
- **Development Lab:** Centre for Development Studies has initiated an innovative step for setting up a Development Lab in the rural areas for practical work and internship.
- **Seasonal Monsoon Forecast to local farmers in vernaculars:** Such forecast have been made available to the local farmers for their benefits by the Centre for Atmospheric and Ocean Science of the University.

Area-6

Imparting Digital Education

- **Massive Open Online Courses (MOOCs) and SWAYAM Platform:** Students are encouraged to take optimum benefits of the ONLINE courses available on the MOOCs-e-PGPathshala and SWAYAM Platforms of Ministry of Human Resource Development (MHRD). These platforms have been made available on the University Website.
- **Smart Classrooms using Audio-Visual Facilities:** University has set up smart classroom with audio-visual facilities so as to make teaching and learning more practical based and effective.
- **Pre-recorded Audio-Video Lectures:** Distinguished and exceptional lectures delivered by the eminent teachers and other academicians are being recorded. These lectures are being used by the students for learning purposes.

Area-6

Imparting Digital Education

- **Virtual Labs:** There are virtual labs in place, esp. in various centres of the Science Faculty like the K.B. Centre of Atmospheric and Ocanic Sciences, Physics, Bio-informatics, M.N. Saha Centre for Space Studies, Nanotechnology Application Centre and so on.
- **National Digital Library:** E-Library has been initiated. More than 29,000 books have been digitized; e-Shodh-Singhu, Shodh-Ganga and Shodh-Gangotri and anti-plagiarism software have been made available to all faculty and students in accordance with UGC Minimum Standards and Procedure for award of M.Phil./ Ph.d. Degree Regulation 2009; ONLINE Books and Research journals through INFLIBNET though UGC-Infonet Digital Library Consortium; e-Pathshala Portal has been launched in the University library.

Area-7
Swachh Bharat Abhiyan

- **Green Campus-Clean Campus:** Plants are good scavengers: Intensive plantation drive was conducted to keep the campus green. Green ever has been increased. We carried out the plantation round the year.
- **Swachhata Week:** a Swachhata Week was organized in the University where large numbers of faculty, students of various departments/Centres/Institutes actively engaged in the cleanness drive.
- **Collaboration with District Administration:** University closely works in collaboration with the district administration for better implementation of the mandate of the Swachh Bharat Abhiyan.
- **Green Hostels-Clean Hostels:** The inmates of all hostels actively participated in cleanliness drive.
- **Proper Waste Management:** Campus has developed proper waste management and it is being collected from various departments and transported to Nagar Nigam, Allahabad.
- **Vermi-compost System:** This system is being developed for organic usages.
- **Special Cleanliness Drives during Melas:** University conduct special cleanliness drives during annual Magh Mela and during Ardh-Kumbh and Kumbh-Mela.

Area- 8: Ek Bharat Shreshth Bharat

- **Recognition of achievers across the University:** An innovative practice has been initiated where token awards are being given to the achievers across different section of the University (Faculty, Student, Employees) and distinguished citizens.
- **Shreshth Faculty from all-India:** It is a common commitment that best faculty from all over India must be recruited in the University for promoting the mission of Ek Bharat Shreshth Bharat.

Area – 9: Unnat Bharat Abhiyan

- **Linkages with Gram Swaraj:** University has made various efforts to have linkages with Gram Swaraj through its various courses in different departments and centres.
- **Skill India Scheme:** University has introduced B. Voc, M. Voc programmes to promote employment and skill India.
- **Deen Dayal Upadhayay Kaushal Kendra:** These Kendra have been set up in the University to promote mandate of Skill India.
- **Community Colleges:** The Community College has been set up in the University and is in the process of consolidation.
- **Rural Technology:** Promotion to rural technology is being given through University e-technology Centre and other technological inputs from different centres.

Area-10
Action taken on Reducing the Legal Cases

- **Pendency Reduced:** There was a total pendency of legal cases of around 600 as on 30.12 2015, which has currently been reduced to 317.
- **High Rate of Success in favour of University:** Due to transparent and fair process, number of success in the cases filed after January 2016, the success rate is more than 80% in favour of the University.
- **Discouraging Petty Litigation:** The current policy of the University is to discourage those who were filing petty litigation against the University by enforcing the effective, transparent and honest policies of the system.
- **Effective Monitoring:** Continuous monitoring of the competent officers of the legal cases and quick disposal of the pending files facilitates reduction of the legal cases.
- **Accountability of the Legal Cell:** Legal cell of the University has been strengthened and has been made accountable. Continuous meeting of the counsel engaged with the University administration and VC helps reduction in the legal cases

Area-11
Plan of Action for Promoting Quality of Research

- **Setting up of New Centre for Fundamental and Basic Research:** It is being envisaged that the University would set up new Centres, which would focus on conducting research on fundamental and basic issues in social sciences, humanities and sciences.
- **Optimal Utilization of ICT in teaching-learning Audio-Video Lectures**: This would be done to optimize the benefits of ICT in teaching.
- **Teacher- Taught Ratio (TTR):** Current TTR is highly skewed in the University (1:77), efforts would be made to bring it to the prescribed level (1:27).
- **Infra-structure Development:** This is very crucial and urgently need with such a great strength of students.

THANK YOU

Digital Initiatives
Aligarh Muslim University



Prof. Tariq Mansoor

Vice-Chancellor

Aligarh Muslim University (AMU), India

www.amu.ac.in vcamu@amu.ac.in

Digitization and Computerization

- Aligarh Muslim University has taken many initiatives for the Digitization and Computerization of the University System in line with the Digital Drive of India.
- Most of the work is done using its internal resources and the contribution of volunteers.
- The volunteers of different faculties are working on it.
- The main emphasis is given to the Management and Processing of the Data using open source software.
- Recently some work has been started by individual teachers for development of MOOCs and use of Moodle Open source software for the students and teachers interaction.

Digitization and Computerization

Some detail of the work done is as follows:

1. **Development of Open Source ERP for University Information Management**
2. **Digital Initiatives of Office of Controller of Examination (& Admission)**
3. **Digitization by Maulana Azad Library**
4. **Faculty of Social Science Cyber Library**
5. **Campus Connectivity and WiFi facilities**

University Information Management System

- It is named as AIMS (Academic Information Management System).
- *We are calling it as AMU Information Management System.*
- It is developed by **Software Development Unit of AMU** where few volunteer developers are working and the system is working perfectly.
- Thus we are in the process of saving 6-7 crore of rupees as compared to SAP system which only student's Module costs 3.5 crore.

AIMS (Contd.)

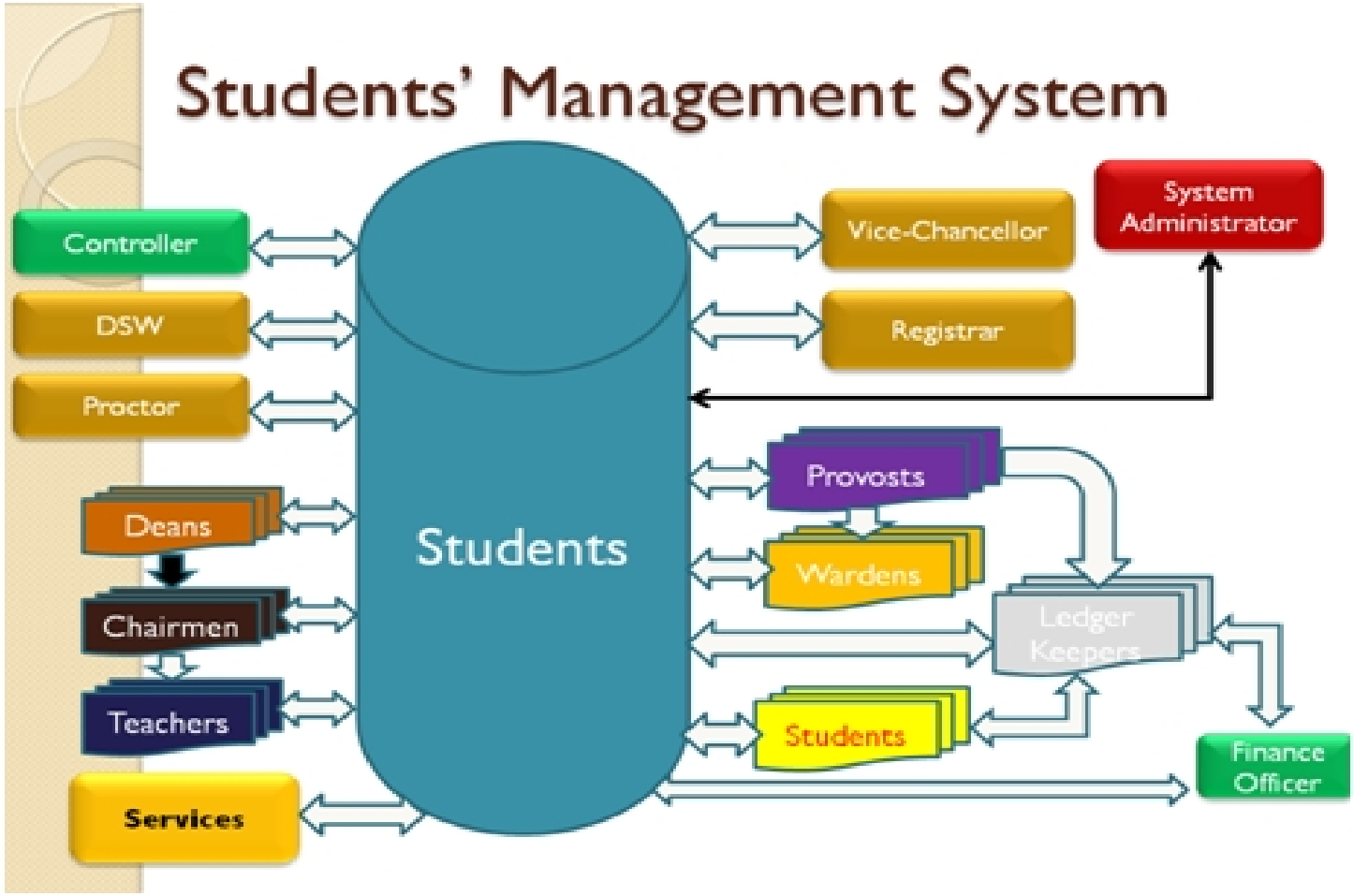
- AIMS has been designed and developed to cater the need of Database Management of Aligarh Muslim University. The standard practices of the University have been translated in this mini ERP system.
- It's a Modular System where different Modules can be added as per need.
- Many Modules have been developed and others are in the process of development for e-Governance of the University in an attempt to develop fully automated paperless system.
- They are being implemented in a phased manner.

AIMS (Contd.)

- Since all activities of the University are students centric so special emphasis is given to record their maximum data to generate the desired information related to them.
- It has facility to generate the Customized Reports
- Thus Student's and HR modules are given priority. An overview of Student's Module is give in a schematic diagram:

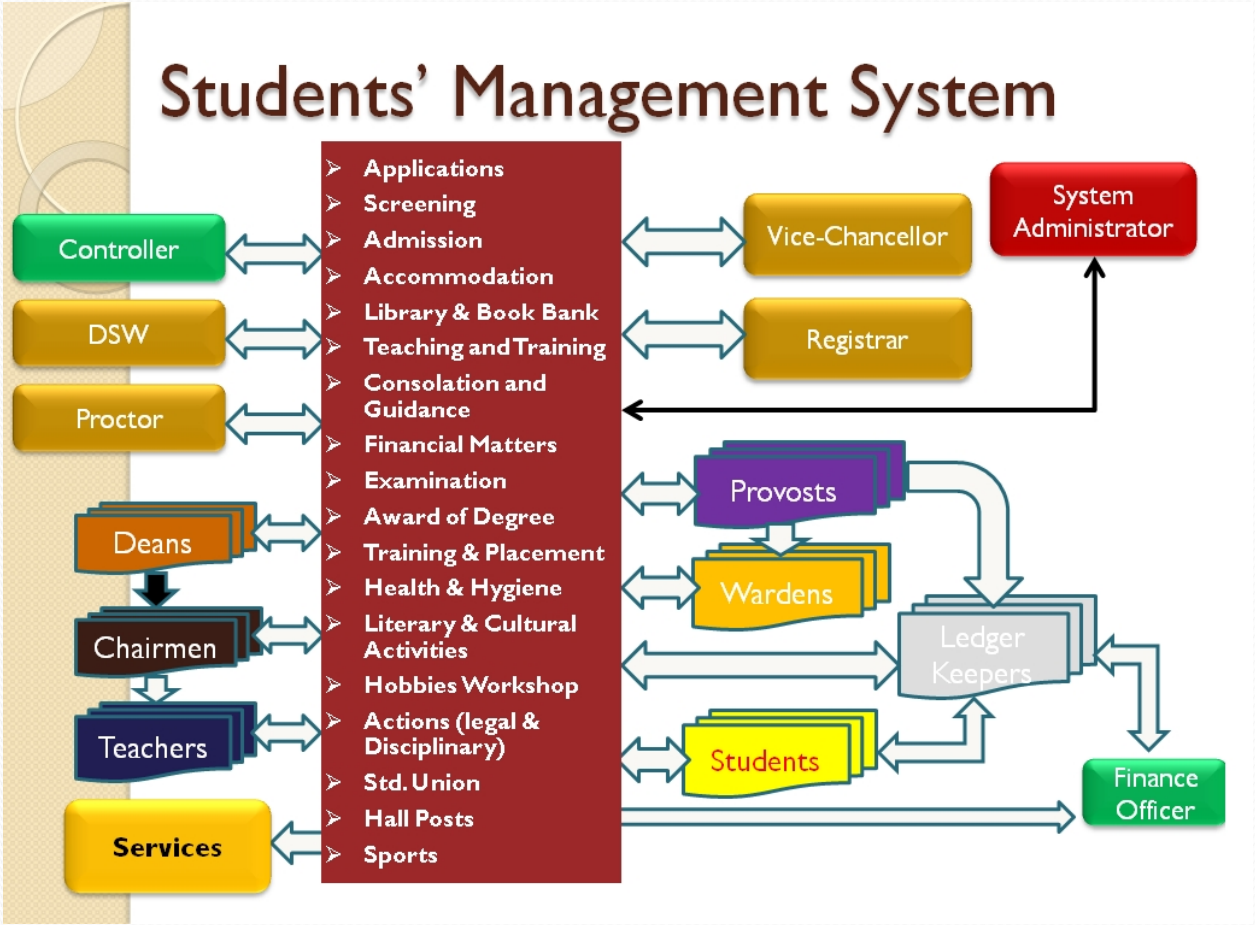
AIMS (Contd.)

An overview of Student's Module



AIMS (Contd.)

An overview of Student's Module



AIMS (Contd.)

- The important feature of the system is its capability to keep records of all Students and Staff and their chronology.
- The complete Life Cycles of Students and Staff information are maintained.
- The System has an excellent Traditional and Customized Report Generation Facility along with Statistical Information.
- However, they are being upgraded regularly as per demand of the users.

Digital Initiatives of Office of Controller of Examination

- The Admission, Examination, Award of Degree/Certificates and related payments are the main features of Controller's Office and require a lot of man power, skill and in time deliverables.
- Many modules are independently have been developed over a period of time. They are now being brought under one umbrella of AIMS and thus improved the management a lot.

1. Development of New Online Application Forms

- **Students' Portal for Application** for Admission to different courses as well as to monitoring their status of Application, Payments, Selection etc.- ***for Compliance of UGC*** by 31.3.2016
- **Online Application Fee Payment** - Integration of Payment Gateway for Application Forms
- **Single Applicant's Control Panel** for Multiple Applications and Monitoring of status of applications, payments, Admit Cards etc.

2. Online Reporting of Key Discrepancies and Report Compilation

- Developed Online Module for reporting of online Key Discrepancies
- It reduced the practice of bulk printing for distribution to the experts for finalization of keys of question papers.
- For example in MBBS Test of 2015-16 alone, 7000 papers sheets were printed for this purpose.

3. Competitive Examination Tests

- OMR sheets have been modified to suit the need of AMU with carbon copy of the answer key
- Admit Cards are provided with Bar Codes for their Scanning in Examination Hall
- The Electronic Module has been tested in real time on trial basis using hand held scanner and laptop

4. Apps for verification

- **Android Phone based Electronic** App has been developed and Tested
- It is Secured Real Time Data Capturing (photo, finger print, barcodes of Admit Card & OMR) of Examinees in the Examination Hall and Transmission to Server.
- It is in the process of customization and miniaturization.

5. Processing of Admission Results

- Developed Dual Processing System using **Visual FoxPro** as well as **PHP-MySql** (open source) to minimize errors and to be independent of Licence based software rather increase dependency on Open Source Software.
- Training of Technical Staff for the enhancement of the efficiency of the system as well as its sustainability to avoid dependency on any person concerned.
- Utilization of Single Database for all processes to make it reproducible.

6. Result Declaration

- More Transparent Result Declarations System
- Selected, Chance Memo and Nomination Lists are displayed together at one time
- Sufficient Time for intimation of Admission/Counselling Date & Time (10-15 days)
- Completion of Admission in minimum number of days (1-3 days)

7. Counselling for Admission

- Developed Counselling System for Admission for Multiple Courses/ Centres/ Branches/ Schools from the single Tests.
- Training Program and Training Modules have been written and implemented.
- The System is very much appreciated by the Staff and Applicants due to its Transparency and Ease of Operation
- The system provides due weightage to all for their Merit, I/E status, Special Categories etc.
- It completes the admission in minimum number of days.
- Developed **Counselling Software** which is partially implemented and is ready for its **Online Deployment** to update the data of Admitted students in real time.

8. Biometric Test & Photography

- Introduced Biometric Test and Photography for newly admitted students in all courses to check impersonation of Admitted Students.
- The same data is also used for their photo Identity Cards
- The data can also be used for the development of future security and automation system.

9. Question Banks

- Introduced new strategies to have a large database of Multiple Choice Questions for different Competitive Test and their Digitization to anticipate Online Tests in the near future.

10. SOPs

- Standard Operating Procedures have been developed for almost all processes related to Admission and Examinations.

11. Secure and Economic Measures

- Many measures have been taken to reduce the cost , time and energy as well as to enhance efficiency of the different works related to Admission and Examination System, such as:
  - Reduction of time by avoiding unnecessary postal work of answer books
- It also improved the working environment by avoiding unhealthy fumes.

Digitization by Maulana Azad Library

- Maulana Azad Library of AMU has digitized 9395Theses, & Dissertations, 9957 rare Books and 8100 manuscripts and are available online. The details are as follows:
- AMU has digitized its 9395 Theses/Dissertations (submitted before 2009 in the university) and connected to Sodhganga to host and maintain the digital repository of Indian Electronic Theses and Dissertations accessible to all the institutions and universities.
- AMU has created its own Knowledge Repository of electronic theses and dissertations using E-Prints open source software.

Digitization by Maulana Azad Library (Contd)

- M.A. Library has digitized 9957 rare books free from copyrights under the CDAC project and linked with Library's OPAC in campus wide network.
- Approximately 8100 in 9.5 lakhs folios of manuscripts have been digitized.
- The MA Library has digitized all the Minutes of the Academic Council, Executive Council and AMU Court
- Some contribution has been done to ePG Pathshala course contents of the MHRD

Faculty of Social Science Cyber Library

- The Faculty of Social Science has developed Cyber Library has been developed.
- It is an ISO 9001:2008 certified
- It brings together all open access e-resources in form of e-books, e-journals, video lectures, subject gateways, databases, useful websites etc. in the field of Social Sciences at one place.
- The students, research scholars and faculty members belonging to various disciplines of social sciences across the globe are making optimum use of them.
- It is Registered in: Limca Book of Records
- The link is : http://www.socsccybraryamu.ac.in

Internet Connectivity of the Campus

- ¾ th Campus is securely connected with WiFi/wired Network
- All Halls of residence (Hostels) and Department of studies have been fully connected with WiFi/LAN.
- The Internet connectivity is available to all on 24 x7 basis.

Future Works

- Basic work has been started
  - Development of Apps & MOOCs in all disciplines
  - Digitization of old Records and their Retrieval system.
  - Online Ticketing System for Students' Services and Grievances
  - Implementation of Secured Degree/ Certificates with online verification facility (ready to be implemented next year)
  - **Android Phone Electronic** based handy devices (already tested) will be used for attendance, photography and Biometric of candidates in the Examination Halls. A secured mobile App is ready.

Future Work

- The connectivity of AIMS system will be extended to all sections/departments/offices of the University as well as individual students and staff for the real time data entry/updating.
- **Strengthening of RTI Cell** / Call Centres to avoid better Services and earn goodwill as a part of **Vision 2020.**
- Collaboration with NAD (National Academic Depository) for Degree/Certificate Data.
- More rare books are to be digitized.
- Digitization of rare Gazettes.
- Approximately 8000 remaining manuscripts are to be digitized by M.A. Library.

Thanks

Assam University
Digital initiatives



Presented by
Prof. Dilip Chandra Nath
Vice Chancellor

Report on MOOCs Courses & NPTEL at Assam University

- A **Massive Open Online Courses (MOOCs)**

1. There are more than 50 Online Courses for the session July-October 2017 is started for students of Assam University at https://onlinecourses.nptel.ac.in. A few students already enrolled for the Online Courses. At present the Examination Centre is IIT Guwahati. If more than 200 students from Assam University enrols, NPTEL may provide us an Examination Centre.

2. NPTEL Office IIT Kanpur organised a One Day Workshop on MOOCs in collaboration with IQAC, AUS on 26th April, 2017 at 10:00 AM in the Seminar Hall of Department of Political Science, Assam University, Silchar

3. NPTEL formed a Local Chapter in Assam University, Silchar during May 2017 with a Single Point of Contact (SPOC) Dr. Prodipto Das, Assistant Director IQAC, AUS

Automation of Examination in Assam University

- The computerization of Examination result processing had been started in the year 2002 with an agreement with CMC Ltd (A Govt. of India Undertaking Organisation at that time).
- University entered into an agreement with ITI Ltd (A Govt. of India Undertaking), Kolkata in the year 2010 for development of new software for examination result processing and storage of digital records of students after introduction of CBCS in the PG courses and semester system in the UG courses. The University is publishing its result on line and storing all the academic records digitally in the local server.

The University also had undertaken a major step for digitization of old manual academic records of students who have appeared examination of this University between 1994 to 2002. The necessary tendering process is over and the work order for the digitization of old records will be issued soon.

National Academic Depository (NAD)

The initiative taken by the University till date is as follows:

- The University nominated its officials to attend all the meetings, workshops organized by UGC and MHRD.
- The University is in constant communication with NSDL and CDSL, the two depositories and will sign the Service Level Draft Agreement, as soon as the same gets finalized by UGC/MHRD.
- University have formed a NAD Cell and nominated its nodal officer.
- University has already taken up the matter with the examination software developer (ITI Ltd) so that the uploading of digital records in the prescribed format can be taken up.
- University will soon start a pilot project with declaration of result of even semester and uploading of academic records in the NAD.(tentatively in the last week of July 2017).

Digital Initiative By Computer Centre for Assam University

1. Intranet based Online File Tracking and Monitoring System (FMS):

- This system is designed to track the location of the file(s) by it's file number; It can identify the date of receipt/ dispatch of any file from it's source to destination.
- The system is developed by Computer Centre and commissioned in an intranet based centralised Server.
- The university authority has made it mandatory for all the stakeholders to process all the files through this FMS only.

2. **Internet/Web based Admission System for UG/PG/Dipolma/MBA/Engineering/ M.Phil/Ph.D:**

- Students can apply for admission to any courses run by Assam University through this system. The entire admission process is automated through this software. This system is designed and developed by Computer Centre and commissioned in an internet based centralised Server and is made accessible globally.

3. **Awareness Camp on NRC- ASSAM Under DIGITAL INDIA WEEK (DIW) Programme of Govt. of India:**

- Computer Centre, Assam University, Silchar has organised this camp.

Digitisation programme under College Development Council, AU are as follows:

1. G C College, Silchar : Library partially digitised, admission form made available through website, cashless admission.
2. Cachar College, Silchar : Admission fully through admission portal and completely online. Preparation of digital library under process.
3. MCD College, Sonai: Office fully automated. Library is automated and connected with inflibnet.
4. Karimganj College: Library is digitised. Office and admission process is partially digitised and cashless admission.
5. S S College, Hailakandi: Partial automation made in library.
6. N C College, Badarpur : Office automated.
7. Diphu Govt. College : Library fully digitised, cashless admission.

Steps taken towards Automation and Digitization of Rabindra Library, Assam University, Silchar

1) Implementation of Library Management System using the open source software Koha- The University library popularly known as *Rabindra Library* is having a collection of documents are categorized below-

Books	**132142**
Journals	
Indian	430
International	105
Magazines	16
Newspapers	20
PhD/M.Phil Theses	1306
Newsletters	65
Reports	325
Gifted Books	2103

- All the documents categories listed above are entered in the Library Management Software- Koha and are being served to the library patrons through the Library WebOPAC (Web based Library Online Public Access Catalogue) on their desktop. Through WebOPAC, the library patrons can check availability of books, circulation history, etc. from their desktop along with the physical location of the book. Also, the 10,500 E-Journals received from the INFLIBNET under the project of MHRD – *E-ShodhSindhu (ESS)* and DELCON are being served to the University Patrons through the WebOPAC. The circulation of books and other documents is being done through automated system.

AUS Digital Repository

Profile: AK Sharma | Logout

DSpace Home

Rabindra Library

This is portal to give you access to the Digital Repository of Assam University. This service provides you the platform to submit all your digital content. This is a digital service that collects, preserves, and distributes digital material.

Communities in DSpace

Select a community to browse its collections.

- Academic Council Minutes
- Annual Reports
- Assam University Ordinance
- Book Chapters
- Books
- Conference Proceedings
- Executive Council
- Finance Committee Minutes
- General
- Journals
- Library Standing Committee
- News Clippings
- Notices & Circulars
- PhD Thesis
- Question Papers
- Research Papers
- Student Magazines

Search Digital Repository

Go

Advanced Search

Browse

All of DSpace
- Communities & Collections
- By Issue Date
- Authors
- Titles
- Subjects

My Account

Logout
Profile
Submissions

Context

Create Community

Administrative

Control Panel
Access Control
- People
- Groups

1) Digitization of PhD thesis available in the print format- All the PhD thesis available in the library in analogue format, were digitized. These thesis are uploaded on the local server as well as on remote server as part of NDL project. Also, the thesis are uploaded in the ETD Repository of the INFLIBNET in *Shodhganga*.

2) Uploading of all PhD thesis to the Inflibnet repository Shodhganga- The PhD thesis, which were received by the library in digital format, were uploaded in the National ETD i.e. Shodhganga.

3) Creation and Maintenance of Institute Digital Repository (IDR) – Assam University library has developed an Institute Digital Repository using the Open Source software DSpace and it is maintaining various categories of collections including Journals' articles, Book Chapters, MOOCs, E-Books, etc, contributed by the University faculties and Research Scholars. This Institute Digital Repository is a part of the project National Digital Library (NDL) of Ministry of Human Resource Development (MHRD), GOI maintained by Indian Institute of Technology Kharagpur .


रवीन्द्र पुस्तकालय
असम विश्वविद्यालय सिल्चर
Rabindra Library
Assam University Silchar
Home
All Books
Text Books
Reference
Special Coll.
Thesis
CD/DVD
Journals
AUS Repository
Collect your New Identity-c
Search
Library catalog
All libraries
Go
Advanced search | Tag cloud | Most popular
Home
Submit Purchase Suggestions
KNOW YOUR LIBRARY
Library Rules
Library Forms
Membership
Photo Gallery
Library Notices
E Resources
INFLIBNET E-RESOURCES (Accessible within AUS campus only)
DELNET E- RESOURCES(user id=asaul; password=aul29)
ASSAM UNIVERSITY RANKING
Course Content for PG Students
Download Free E-Books
Select E-Books for your Library
E-Books
Free E-Books
Highwire E Books from Stanford
INDIAN JOURNALS (ONLINE)
News @ Rabindra Library
Usage statistics of E-Resources received from INFONET is very low. If this continues, INFLIBNET/UGC may stop these resources
Waiting for hitwebcounter.com...

Thank you

BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY, LUCKNOW

NAAC Accreditation: Grade "A"



DIGITAL AND OTHER INITIATIVES/ REFORMS UNDERTAKEN BY THE UNIVERSITY

Various Schools and Departments

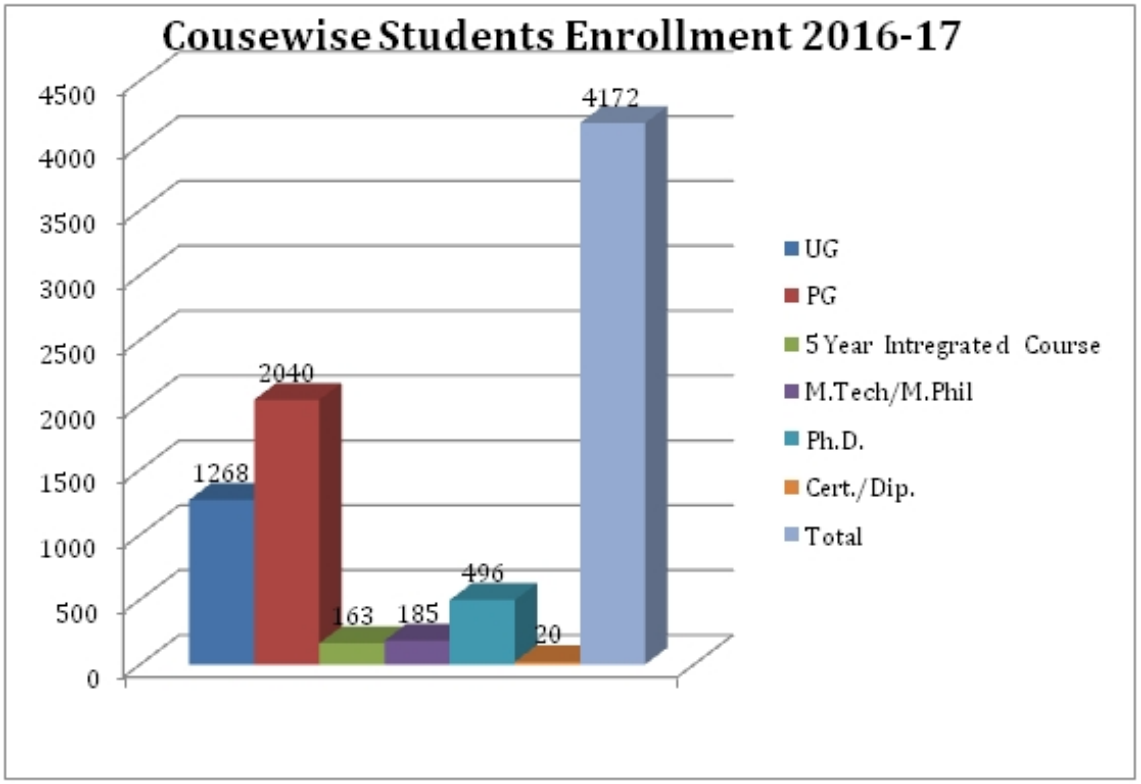
1. School for Ambedkar Studies	
	1. Department of Economics
	2. Department of History
	3. Department of Political Science
	4. Department of Sociology
	5. Centre for the Social Exclusion and Inclusive Policy (CSSEIP)
2. School for Bio-Sciences & Bio-Technology	
	6. Department of Applied Animal Science
	7. Department of Applied Plant Science (Horticulture)
	8. Department of Biotechnology
	9. Department of Pharmaceutical Sciences
3. School for Environmental Science	
	10. Department of Environmental Microbiology
	11. Department of Environmental Science
4. School for Home Science	
	12. Department of Human & Family Studies

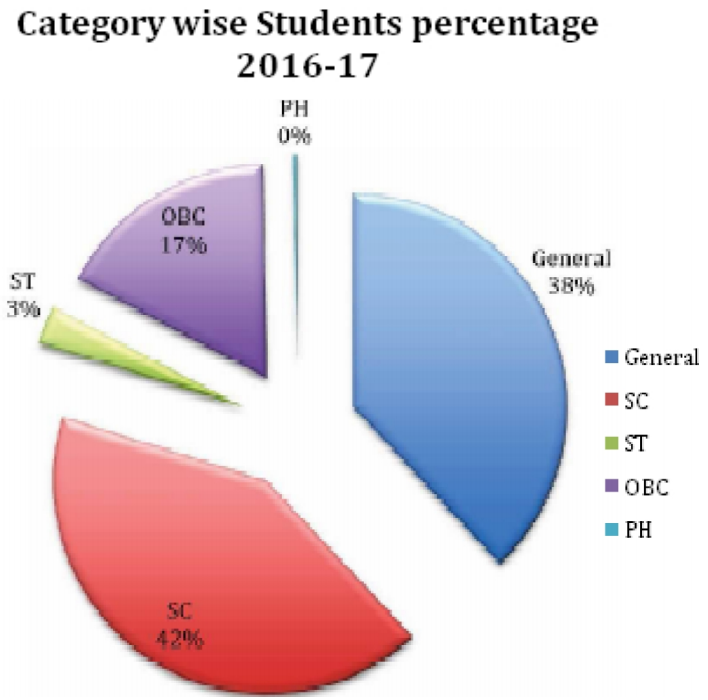
5. School for Information Science & Technology	
	13. Department of Computer Science
	14. Department of Information Technology
	15. Department of Library & Information Science
	16. Department of Mass Communication & Journalism
6. School for Legal Studies	
	17. Department of Law
	18. Department of Human Rights
6. School for Management Studies	
	19. Department of Rural Management
8. School for Physical Science	
	20. Department of Applied Chemistry
	21. Department of Applied Mathematics
	22. Department of Applied Physics
	23. Department of Applied Statics
9. School for Education	
	24. Department of Education
10. School for Language & Literature	
	25. Department of Hindi

Course/ Category Wise Student's Enrolment 2016-17

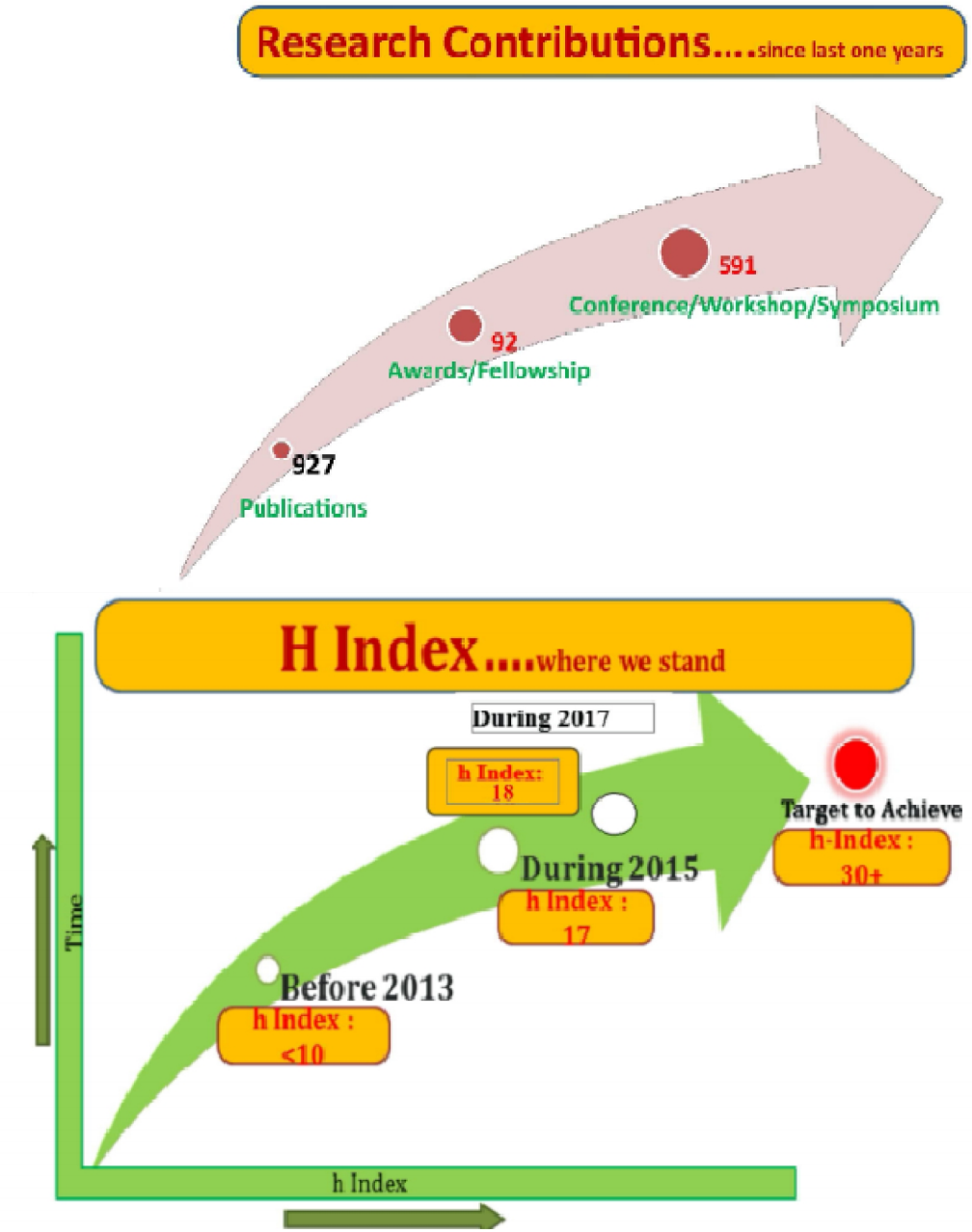
Courses Offered by the University:

1.	Ph.D.	:	22
2.	M. Phil.	:	09
3.	M.Sc./ M.A./ M. Tech.	:	49
4.	5 year Integrated Courses	:	04
5.	UG Courses (B.A./ B.Sc./B.B.A./ B.Com./ B. Tech./ B. Voc./ B.Lib.ISc.)	:	17
6.	PG Diploma	:	03
7.	Diploma/ Certificate Courses	:	01





Research Output/ Achievements



Newly Constructed/ Under Construction Buildings



















DIGITAL

Initiatives for the Transparency in Administrative and Finance Matters

- Issue of Debit Cards to all Head of Departments for Imprest Amount.
- Uploading of DAK Register of various Offices on University Website.
- Uploading of all Office Orders on University Website.
- Fingerprint Attendance of the Students and Outsourced Employees.

Initiatives for the Improvement of Teaching and Learning Process etc.

- Online Entrance Test for admission.
- Smart Classroom equipped with following items.
  - Projector
  - TV
  - Smart Board
  - Video Conferencing equipment etc.
- Arrangements to provide hand-outs of Lectures to students.
- Personality Development Cell.
- Media Centre.
- Smart Cards for Students.

Proposal to start MOOCs (Massive Open Online Courses) on

- Diploma in Information Communication and Technology
- Advance Diploma in Information Communication and Technology
- PG Diploma in Information Communication and Technology
- Master of Science in Information Communication and Technology
- Introduction to Applied Microbiology
- Certificate Program in Management
- Diploma in Management



CENTRAL UNIVERSITY OF GUJARAT

GANDHINAGAR-382030

Digital Initiative

END TO END ONLINE ENTRANC

From 2015 : University conducts all India online entrance test for admission o
more than 30 + Centres, across the country.

Entire Admission process is online

Collection of fees through online

Downloading of Admit Card for Test online

Communication of results through email, SMS

vo temporary campuses are enabled with 24 x 7 Wi-Fi connectivity of 1 GB
eed under NKN-NMEICT Project

E-LEARNING RESOURCES AT THE UNIVERSIT

2800 E-Books
3903 E-Journals
11 Database
EzProxy Remote Access -
FedGate Federated Discovery Tool - Search Engine
Digital Library Software - DSpace
Library management Software - Koha LMS
RFID Technology - Self Check In/Out Books
Braille Software, Printer and Cyber Lab for Visually & Physically handicapped
JAWS Home Talking Software for the Blind
Kurzweil K1000 OCR Reading Software
SARA CE Text Reading Machine





ICT ENABLED VIRTUAL CLASSROOM

LCD Projectors

nteractive Smart Boards

nternet connectivity

Live Streaming of Important events like GIAN Programmes and other National/International academic events of the University.





VIRTUAL LEARNING RESOURCE CENTR

- Equipped with state of art Knowledge e-Resource Centre accommodating 124 students at a time
- Language Lab with requisite softwares
- Virtual Conference with Video Conferencing facility
- Web casting and Smart-Board facilities
- Introducing Online Certificate and Diploma Courses in Bio-Remediation under an MoU with University of Florida



ICT IN ADMINISTRATIO

- Payment through NEFT/RTGS to the Vendors & Suppliers
- Smart Cards for Students – I-Card – Debit Card through Canara Bank
- All financial transactions like salary, TDS, NPS deduction and advances are operated online – Zero Cash dealing
- Provision for Interviews through Skype and Video conferencing
- Committed for NAD
- CCC Surveillance of campuses
- Procurement through GeM
- NIC e-procurement Portal




Thanks

THE NATIONAL CONVENTION ON DIGITAL INITIATIVE IN HIGHER EDUCATION

Ministry of Human Resources Development
Government of India

BY

GURU GHASIDAS VISHWAVIDYALAYA
(CENTRAL UNIVERSITY)
BILASPUR (C.G.)

Prof. Anjila Gupta
Vice Chancellor

TIMES OF INDIA 11-04-2017

GGCU goes digital

TIMES NEWS NETWORK

Bilaspur: To encourage digital payments, Guru Ghasidas Central University has initiated online fee deposit system for accepting digital payments from the students. Five swap machines have been installed on the university campus for this purpose.

The university administration has installed swap machines in the examination department, the central library, the administrative building, in the reception and in the guest house so students can avail this facility.

A workshop on digital payment system was also organised in the university to raise awareness and inform the staff members and the students about the digital payment system.

In wake of the November 8, 2016 order to demonetise high-value currency notes, the Indian government is continuously trying to promote digital payment through its various undertakings so it replaces cash transactions. The central university has introduced digital payment system as part of it. It has, however, been clarified that along with digital payment, traditional method of cash payment of fees will continue in the university. GGCU is run under the ministry of human resource development.

INTRODUCTION OF UNIVERSITY

- University upgraded from state university to **Central University** on **15-01-2009**.
- Committed to **social empowerment** particularly of the **weaker sections** of the society.
- **One third** of Chhattisgarh's population is of **Tribes**, mostly in the thickly forested areas in the North and South.
- University campus spread over **656 acres** of land.
- Presently **09** schools of studies having **32** teaching departments
- Around **7000** students enrolled in the university.

DIGITAL INDIA

- a **flagship** programme of Government of India
- aims at transforming India into a **digitally empowered society** and **knowledge economy**.
- to **inform, educate** and **engage** citizens through organizing of events at large number
- connect all citizens through **Digital Media** campaigns and events so that **vision, services and benefits** of the programmes could be conveyed.
- **Popularization** and **expanding** the reach of existing-**e-services, plan and launch of new services**
- educate citizens on **functional literacy, cyber security, cyber hygiene**, ensuring better utilization of digital infrastructure.

Guru Ghasidas Vishwavidyalaya, Bilaspur, C.G.

Digital India Week

(1st - 7th July, 2015)

Digital India is an flagship programme of the Government of India with a vision to transform India into a digitally empowered society. The focus areas are: creation of a countrywide digital infrastructure as a utility for every citizen, ensuring governance and services on demand and digital empowerment of citizens. The Digital India programme rests on nine pillars:

- Broadband Highways
- Universal Access to Mobile Connectivity
- Public Internet Access Programme
- e-Governance- Reforming Government through Technology
- e-Kranti -Electronic Delivery of Services
- Information for All
- Electronics Manufacturing
- IT for Jobs
- Early Harvest Programmes

Portal/Apps

Digital India Portal and Mobile App

MyGov Mobile App

Swachh Bharat Mission App

Digital India @ GGV

- Theses Digitization for Shodhganga Project
- Library Automation based on RFID Tech.
- Internet Connectivity through NMEICT Project
- Integrated University Management System (IUMS)
- Institutional Repository



Technology transforms people's lives. It empowers and connects. From mitigating poverty to simplifying processes, ending corruption to providing better services, vitality of technology is everywhere. It is an important instrument of human progress.

Narendra Modi
Prime Minister



Digital Locker

- Storage and sharing of government certified documents possible& Paper-free governance
- Anytime, anywhere access to documents.
- Enables e-signing of documents.
- Dedicated personal space of 1 GB.
- Ensures privacy and authorised access only.

For more information https://digitallocker.gov.in

National Scholarships Portal

- Ensures timely disbursement of scholarships.
- Provides a common portal for various scholarship schemes & creates a transparent database.
- Avoids duplication and leakages in processing.
- Facilitates Direct Benefit Transfer of scholarships

For more information,
https://www.scholarships.gov.in





e-Hospital/ORS

- Single portal provides choice of hospitals to patients & Aadhaar-based online registration, payment, appointment, diagnostic test
- Flexibility to provide appointments to new patients who don't have Aadhaar.
- Online availability of diagnostic reports & blood through online mechanism.

For more information, https://ors.gov.in

e-Sign

- Aadhaar holder to digitally sign a document.
- Easy verification, saving time and trouble.
- Legally valid signature, no questions asked.
- Flexible and easy to implement.
- Utmost privacy & Secure online service

For more information,
http://www.cca.gov.in/cca/?q=e-Sign.html





Digitize India Platform (DIP)

- Digitize physical records and reduce piles of papers in Record rooms and offices.
- Provides income opportunities to people for work.
- Anyone can participate in the Digitize India programme.

For more information, http://digitizeindia.gov.in







GGV INITIATIVES

1. DIGITAL INDIA WEEK
2. TRANSFORMATION OF CENTRAL LIBRARY IN DIGITAL LIBRARY.
3. INTEGRATED UNIVERSITY MANAGEMENT SYSTEM (IUMS)
4. CAMPUS CONNECTIVITY
5. CASHLESS TRANSACTION
6. VITTIYA SAKSHARTA ABHIYAN (VISAKA)
7. ONLINE SCHOLARSHIPS
8. GLOBAL INITIATIVE OF ACADEMIC NETWORKS (GIAN)
9. OTHER DIGITAL INITIATIVES

1. DIGITAL INDIA WEEK

1-7 July, 2015

Date	Particular
01 July 2015	Live Telecast of the Inauguration programme of "Digital India Week" by Prime Minister Shri Narendra Modi at Delhi from 4.00 PM onwards.
02 July 2015	Digital India Week Observance at GGV at 12.00 PM in the Central Library- Awareness about Core Elements of Digital India programme among Faculty members and students through Presentation, Display of Materials, Banners etc.

DIGITAL INDIA WEEK

Date	Particular
03 July 2015	Propagation of Governments' plan on Digital India among Academic Communities.
	Providing access to EBSCO e-Book Academic Collection to the Academic Community of GGV (80 thousand e-books).
06 July 2015	"E-resource & Its Use" – Presentation by Taylor & Francis Group towards optimum utilization of Digital Contents. at 11.30 AM.
	Digital Utility Awareness among students – A student completion programme at 2.30 PM.
07 July 2015	"e-Book awareness programme" by GIST – Willey Blackwell & IEL, towards optimum utilization of Digital Contents at 11.00 AM.
	"Use of Electronic Scholarly Contents" by Sage International, towards optimum utilization of Digital Contents at 2.30 PM.

2. TRANSFORMATION OF CENTRAL LIBRARY INTO DIGITAL LIBRARY

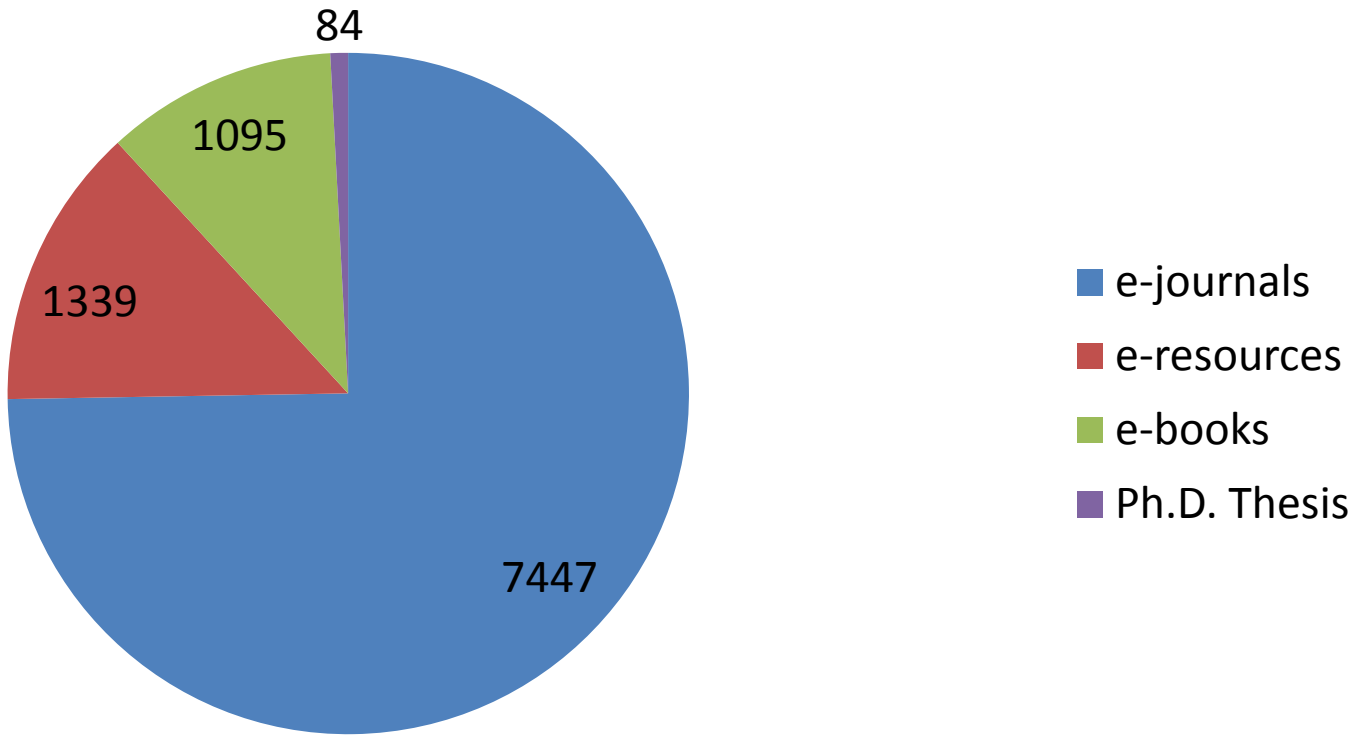
Digital Library



TRANSFORMATION OF CENTRAL LIBRARY INTO DIGITAL LIBRARY

- **e-Shodh Sindhu**: Consortium for Higher Education Electronic Resource available through INFLIBNET- **8158**
- e-Journals Procured -**1336**
- e-Books Procured - **1095**
- Online Ph.D. Theses : **125**

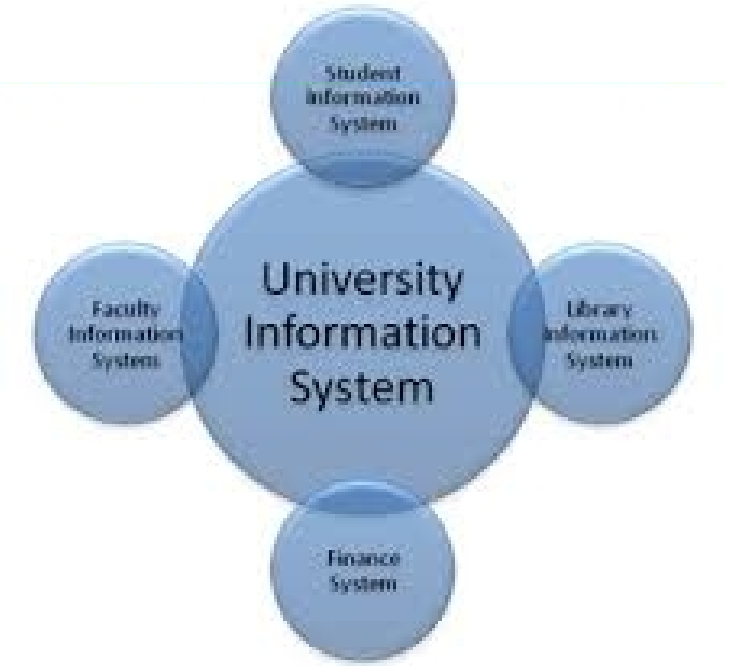
E-CONTENTS IN CENTRAL LIBRARY



RADIO FREQUENCY IDENTIFICATION DEVICE (RFID)

- For Rapid charging/Discharging,
- Simplified pattern self charging,
- High Reliability,
- High Speed Inventorying,
- Automated Materials Handling

3. INTEGRATED UNIVERSITY MANAGEMENT SYSTEM (IUMS)





INTEGRATED UNIVERSITY MANAGEMENT SYSTEM (IUMS)

(Inaugurated on 20-5-2013)

- **IUMS** has been developed and transformed the campus environment from conventional to **Smart ICT enabled** online digital campus.
- The system has been executed for making **academic and administrative** processes online and automatic.

MODULES OF IUMS

- Finance,
- Accounting,
- Human Resource Management System (HRMS),
- Academic,
- Examination,
- Confidential and
- Admissions modules

INTEGRATED UNIVERSITY MANAGEMENT SYSTEM (IUMS)

- University intends to maintain the **Transparency in Governance, Accuracy in Results** and **fast functioning of procedures** through IUMS.
- **Students, faculty members** and **University officers** have access to different activities of the university from across the world through IUMS.

4. CAMPUS CONNECTIVITY

A. NATIONAL KNOWLEDGE NETWORK

B. Wi-Fi CAMPUS CONNECT

CAMPUS CONNECTIVITY

A. NATIONAL KNOWLEDGE NETWORK

- Under National Mission for Education using Information & Communication Technology (**NMEICT)** project, campus network was successfully completed in October, 2012 with 460 nodes and is smoothly functioning for: Accessing e-books, e-journals and other reading materials by students school wise and faculty members round the clock.
- **Video Conferencing** is conducted for students, faculty members, staff as and when lecture / interaction delivered by the **Hon'ble President, Prime**

CAMPUS CONNECTIVITY

B. Wi-Fi CAMPUS CONNECT

- To **enhance the access to the Internet** in the University campus, MHRD has allocated funds for the scheme in order to cover the whole campus.
- The passive part of the work has already been completed by NICSI, and the Rail Tail has initiated the active part to make the campus fully Wi-Fi.

5. CASHLESS TRANSACTION





CASHLESS TRANSACTION

- In order to promote the **Cashless transaction** in the Central University three banks namely, **State Bank of India, Bank of India and Allahabad Bank** have been authorized to collect the fee online.

- The University organized "**Financial literacy camp for online fee deposit system"**, and facilitated for opening of **new account, life insurance & PAN card, etc**.

CASHLESS TRANSACTION

- The University has installed **05 swipe machines in the university campus** for cashless transaction facility for students and visitors.
- An **online fee deposit system awakening programme** to enable the students to deposit their fee was also organized by the finance section of the university.
- All the ministerial staffs are being regularly trained as per guidelines to maintain the cashless transaction and for smooth operation of swipe machines & online transactions

SOME PRESS REPORTS ON GGV MOVES FOR DIGITAL INDIA



सेंट्रल यूनिवर्सिटी...

ऑनलाइन फीस डिपोजिट सिस्टम का उद्घाटन

पत्रिका न्यूज़ नेटवर्क

patrika.com

बिलासपुर. सेंट्रल यूनिवर्सिटी में बुधवार को कुलपति प्रोफेसर अंजिला गुप्ता ने वित्तीय साक्षरता एवं ऑनलाइन फीस डिपॉजिट प्रणाली का शुभारंभ किया।

रजत जयंती सभागार में कुलपति प्रोफेसर अंजिला गुप्ता ने स्वाइप मशीन का प्रयोग कर इस भुगतान प्रणाली की शुरुआत की। उन्होंने कहा कि यूनिवर्सिटी में पहले से ही ही डिजिटल पेमेंट की व्यवस्था लागू है, लेकिन छात्रों के लिए शुरू हुई इस सुविधा का सीधा लाभ अब उन्हें प्राप्त हो सकेगा। उन्होंने कहा कि सुरक्षा की दृष्टि से यह प्रणाली सुरक्षित है, इससे छात्र अब बिना नकद भुगतान के स्वाइप मशीन के जरिए फीस का भुगतान कर सकेंगे इस सुविधा का ज्यादा से ज्यादा उपयोग करेंगे। प्रभारी वित्त अधिकारी डॉ. आर के सोनी ने बताया कि इस ऑनलाइन फीस डिपॉजिट सिस्टम को यूनिवर्सिटी के सीएसआईटी विभाग की टीम एवं इलाहाबाद बैंक के सहयोग से तैयार किया गया है।

6. VITTIYA SAKSHARTA ABHIYAN (VISAKA)

14, 16 and 20th December, 2016 by NSS Cell of the university.

- A training program for students was organized on **14-12-2016** as a part of **'Vittiya Saksharta Abhiyan'** of Government of India.

- More than **500** students were trained for the application software **'SBI Buddy'**. The program was organized under chairmanship of Vice Chancellor, Prof. Anjila Gupta.

VITTIYA SAKSHARTA ABHIYAN (VISAKA)

- More than 300 students and teachers registered themselves as volunteer on VISAKA Portal.
- Survey in the market areas, adjacent to the University campus, was undertaken by about **300** students' volunteers on **16-12-2016** .
- On **20-12-2016**, a second round of awareness programme was organised by **trained volunteers** to give training to the **small businessmen/vendors** as to how to use different digital payment systems in their business.

7. ONLINE SCHOLARSHIPS

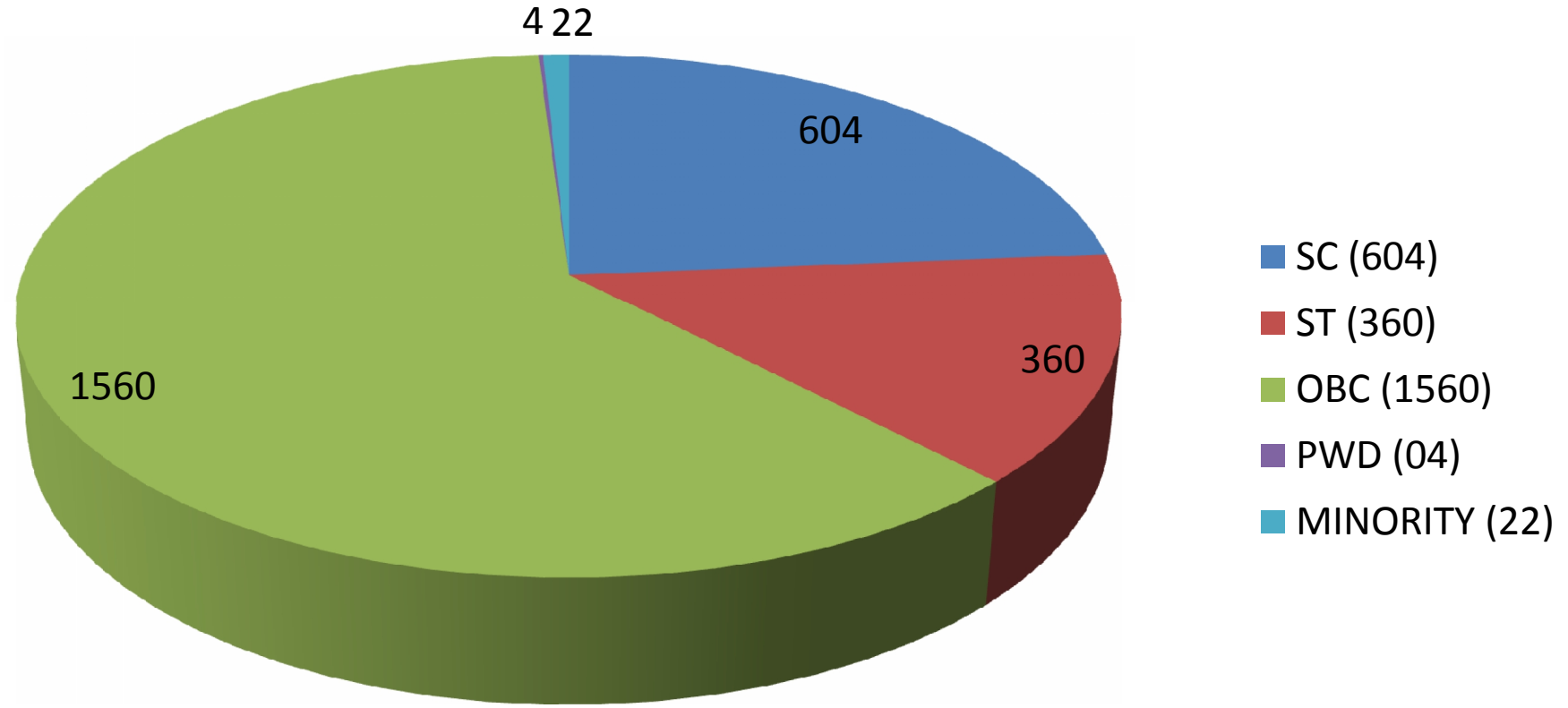
Under Digital India Initiative of Government of India

- In order to provide **timely scholarships** and **remove the deficiency** with regard to students belonging to **SC/ST/OBC/PWD/MINORITY** categories, all records of students are maintained online, and payment of the scholarships is made in their respective bank accounts.
- University intends to link all the students' bank accounts with **Aadhaar.**

ONLINE SCHOLARSHIPS

Category	Male	Female	Total
Schedule Caste (CG)	411	193	604
Schedule Tribe (CG)	200	160	360
OBC (CG)	708	492	1200
OBC (other than CG state)	175	34	209
PWD	03	01	04
Muslim Minority	08	12	20
Other Minority	02	-	02
Grand Total	1507	892	2399

ONLINE SCHOLARSHIPS



8. GLOBAL INITIATIVE OF ACADEMIC NETWORKS (GIAN)

- During Phase –I of GIAN, out of **five proposals** submitted, the Department of **English and Foreign Languages** got approval of Rs. 8.16 lakhs by the National Coordinator GIAN.
- The course was successfully conducted during July 11-22, 2016.
- **Foreign Resource Person : Prof. Wajupa Tossa, University of Thailand.**
- **National Resource Person :**

  Prof. Z.N.Patil , Retd. Prof. EFLU, Hyderabad

  Prof. R.N. Rai, BHU Varanasi

GLOBAL INITIATIVE OF ACADEMIC NETWORKS (GIAN)

- During Phase-II, The proposal of **Department of Pure and Applied Mathematics** has been accepted.
- **Foreign Resource Person: Dr. Dorel Miheţ** West University of Timişoara, Romania.
- workshop will be held October 23-27, 2017.

9. OTHER DIGITAL INITIATIVES

1. DIGITIZATION WORK DONE BY UGC-HRDC IN THE UNIVERSITY :

S.No.	Particular
01.	Online Feedback of Resource Person
02.	Participants can apply and pay registration fee online.
03.	T.A./D.A. of Participants paid online
04.	T.A./D.A. of Resource persons paid online
05.	Working Expenses paid online
06.	Compilation of lectures in digital format
07.	Digitization of files/ Documents

OTHER DIGITAL INITIATIVES

2. **VISHWAVIDYALAYA ENTRANCE TEST (VET) : Online Application Form** submitted by more than **14000** candidates from all over India for **2017-18.**

More than **12000** students appeared in the **VET-2017** at 10 different cities across the Country.

The **result of VET** was declared **online** on the **scheduled date** and was uploaded on the University website: **www.ggu.ac.in**.

OTHER DIGITAL INITIATIVES

3. As per directives of Government of India, the **land record and MAP** of this University has been uploaded on the **Government Land Information System (GLIS)** portal.

4. NSDL has been authorized as Central Record Keeping Agency in digital form for employees opting **National Pension Scheme**.

5. A portal named as **www.ggvalumni.in** has been created for **online registration of alumni** of this University. A portal is linked with University **website www.ggu.ac.in**.

OTHER DIGITAL INITIATIVES

6. An attempt is being made by the university to keep letters, notifications & proposals in Digital format.

7. CCTV cameras have been installed in all classrooms and prominent places.

8. All employees' information for the year 2016-17 pertaining to this University duly filled in the prescribed format i.e. **Data Capture Form** has been uploaded in the MHRD-**All India survey on Higher Education website**.

OTHER DIGITAL INITIATIVES

9. The University has registered under **GeM** and started purchase and payments through it. Also, the University has adopted GFR-2017 and started uploading all the tender documents/forms in the **Central Public Procurement Portal (CPPP)**.

10. University has **five e-conference rooms** where audio visual facilities are available. In two classroom video conferencing facilities is also available. All are connected through NKN nodes.

- **The University intends to comply all instructions and guidelines issued by the ministry time to time.**

Thank you

DR. HARISINGH GOUR VISHWAVIDYALAYA SAGAR (M.P.)

(A CENTRAL UNIVERSITY)

(A GRADE NAAC ACCREDITATION - 3RD CYCLE)

Presentation on Digital Initiatives

8th July 2017

New Delhi

Digital Intervention Including Innovation

University has taken following initiatives in compliance to Digital Initiative Scheme of MHRD in Higher Education

- **MOOCs for SWAYAM Portal**
- **ETV Programs for SWAYAM Prabha DTH TV Channels of MHRD**
- **e-Contents for UGC-CEC Web portal**
- **National Digital Library, e-Shodhsindhu, Shodhganga, Shodhgangotri, DELNET, Sage Subject collections, Manupatra and Westlaw database.**
- **Paperless office through IUMS**
- **Wi-Fi Campus**
- **National Academic Depository**
- **Language Laboratory**

INNOVATIONS

- Setting-up of Institutional Repository
- Conversion of GIAN programs into e-contents/ MOOCs
- Digital Library of Earthworms of India
- Digital Manuscript Resource Centre

Features of the intervention/innovation made

SWAYAM Program

- One MOOC of 16 weeks 4 credits is being offered online
- Ten MOOCs are in the advance stage of development

ETV Programs for SWAYAM PRABHA

- 280 curriculum based ETV programs for UG courses developed and are being telecasted on DTH TV Channel titled as CEC-UGC (SP- 08) on trial/test mode
- 545 CBCS based ETV programs for B. Pharma, 310 for B. Sc. Forensic Science and 205 for B. A. Criminology developed are under preview by CEC and shall be available soon on DTH TV Channels.

GIAN programes

- All 8 GIAN programs conducted by the Vishwavidyalaya are being converted into broadcast quality ETV programs for telecasting on SWAYAM Prabha DTH TV channels.
- Four GIAN programs shall be converted to MOOC.

e-Contents

- 276 e-content programs for B.Sc. Geology developed are available on CEC web portal.
- 486 e-content programs in B. Pharma have been produced and submitted to CEC for uploading.
- 310 e-content programs for B.Sc.Forensic Science and 205 for B. A. Criminology developed and are ready for submission to CEC.

- 1600 Learning Object Repositories (LORs) on various subjects developed and submitted to UGC-CEC for uploading.
- University is an active member of NDL, e-Shodhsindhu, Shodhganga, Shodhgangotri, DELNET having access to e-resources.
- Language Laboratory for interactive learning of English language is beneficial for students

INNOVATION

- Eight GIAN programs conducted by the Vishwavidyalaya are in process of converting into E-contents/ MOOCs.
- Central Library is developing repository of its own publications to be hosted on NDL portal soon.
- Digital database on 429 earthworm species of India has been created.
- Digital database on manuscripts is underway. ~1000 manuscripts have already been digitised.

Benefits accrued to students /Faculty due to implementation in the Campus

- MOOC offered by the University has facilitated additional credit earning and credit transfer
- Students, research scholars and teachers are having IP based access to digital academic data/material available on NDL, e-Shodhsindhu, Shodhganga, Shodhgangotri, DELNET, Sage Subject Collection, Manupatra and Westlaw etc.
- Doctoral theses uploaded on Shodhganga Portal are available online to researchers.
- Admission process of students and research scholars of the University is by and large online.
- Language Laboratory for interactive learning of English language is beneficial for students. In future more European Language courses will be implemented.
- Digital database on earthworm species is facilitating digital taxonomic identification of earthworms even among pharmacologist, biotechnologist and vermi-entrepreneurs.

Help in adoption of this initiative by others institutions

We can help other institutions to take all digital initiatives that we have in our institutions

Future Roadmap

- Complete automation of admission process
- Completion of Wi-Fi project
- Optimal utilization of NAD
- Paperless office through IUMS
- Conversion of GIAN programs conducted/to be conducted by the university into e-contents/MOOCs
- Conversion of e-contents developed/to be developed into MOOCs
- Creation of additional e-contents
- Interactive learning of English and other European languages through Language Lab.
- Digital literacy programs for achieving less-cash goal
- Strengthening of University web-site
- Launching of on-line certificate and diploma courses



Thanks…

Digital Initiatives at Central University of Haryana

Presented by :

Central University of Haryana

Overview of Central University of Haryana

- Established under the Central Universities Act, 25 of 2009.
- Campus situated in 488 acres of land at Jant- Pali Villages, Mahendergarh ,Haryana.
- NAAC Accreditation – A (2017)
- Total Students Strength =1545
- Total number of Departments =29
- Total number of Programmes =53

Digital Initiatives Undertaken

- Digital Financial Literacy Initiatives
- e-Content Development
- Digital Initiatives in Examination Branch
- Digital Initiatives by Central Library
- Implementation of Online Processes, Services and Facilities
- Services on University Portal
- Online Students Services
- Online Initiatives in Academics
- Online Initiatives by Departments
- Future Plans on e-Governance

Digital Financial Literacy Initiatives

- Ranked first amongst all Central Universities in VISAKA (Vittiya Saksharta Abhiyan).
- Highest registered volunteers for VISAKA.
- All Eight adopted villages by University were trained for digital transactions during VISAKA.

e-Content Development

- e-PG Pathshala Project awarded to Prof. R. C. Kuhad, the Vice Chancellor of the University.
- e-content generation for the same is under progress.
- Five Virtual and Smart Classrooms functioning.
- Seven Courses for Global Initiatives for Academic Networks (GIAN) have been awarded and 4 of them have been already conducted.

Digital Initiatives in Examination Branch

- Online registration for examination.
- Online Question Paper Setting, Receiving and Record keeping.
- Bar coding of Answer Booklet and Data Entry of Marks in Tabulation using Scanner.
- Digital Tabulation of results.
- Digital mapping of results with marks card.
- Online Registration for Convocation.
- Participants in National Academic Depository (NAD).
- Student Life cycle implementation by ERP under process.

Digital Initiatives in Central Library

- Barcode enabled Issue & Return of Books.
- Online Services:
  - Library Management System
  - Plagiarism Check Services
  - Library Catalogue
  - Library Staff Database
- Two Digital Repositories on D Space software for Online and Offline contents.
- Library Website is under development.
- Data Sharing with NDL , INFLIBNET Shodhganga , CEC is under process.

Implementation of Online Processes, Services and Facilities

- Admission through CUCET for all programmes.
- Fee payment through various gateways such as PNB , HDFC , Paytm etc.
- All Administrative and Student related forms are available online.
- All teaching/Non-teaching staff recruitment applications are received and processed online.
- Employee records digitized and preserved as soft copy.
- 100% Wi-Fi campus with a speed of 2GBps.

Implementation of Online Processes, Services and Facilities

- Utility bills generated online and payments done through online transfer.
- E-generation of F-16 and E-filing of TDS returns.
- Salaries disbursed directly to the bank accounts of the beneficiaries.
- Webcasting enabled services.
- Designed Exchange Server, ADDS Server, Application Server, Web Server, Cloud Server to support online services.
- e-procurement by Government e-Marketplace(Gem).

Services on University Portal

- Repository of all the available information, facilities, resources and opportunities.
- Provision of access to all e-resources i.e. National Digital Library, e-Books, Judgment Information System, National Science Digital Library, Online Periodicals Repository, GOI web directory, NPTEL, e-Shodh Sindhu, e-PG Pathshala.
- Minutes of meeting of all statutory bodies and committees and all official notifications/public events/results are provided online .
- Monthly student attendance upload on website.

Online Students Services

- Program Structure /Syllabus available online.
- All notifications related to students.
- Individual student Wi-Fi access.
- Academic Calendar/timetable/activities related to various clubs provided online.
- Development of Central University of Haryana Mobile Application for access on mobile.
- Online feedback and grievances redressal mechanism.
- Online processing of scholarships and DBT transfer of money.

Online Initiatives in Academics

- Registration with the National Digital Library (NDL).
- Access of resources under INFLIBNET.
- Utilization of Google Mail services for assignments and in other interactive academic matters.

Online Initiatives by Departments

- Following services have been made available to students online:
  - Notifications
  - Office Orders
  - Time-table
  - Internal assessment tests
  - Assignments
  - Conduction of seminars, workshops

Online Initiatives by Departments

- Student academic activity records maintained online.
- Evaluation, Selection, Installation and Maintenance of Hardware and Software resources in the laboratories.
- Maintenance of online student database.

Future Plans on e-Governance

- Efforts are underway for Integration of all digital activities on a common platform(Integrated University Management Software).
- Implementation of Learning Management systems.
- Digitization of special lectures by academicians.
- Looking forward for Paperless work and 100% cashless payments.
- Planning to use educational resources i.e. MOOCs in the forthcoming session.



Thank You !

CUHP DIGITAL INITIATIVES IN HIGHER EDUCATION

Presentation
by

Professor Kuldip Agnihotri
Vice Chancellor
Central University of Himachal Pradesh

- Unswerving commitment to provide quality and inclusive access to higher education
- Prepared OER policy in collaboration with Commonwealth Educational Media Centre for Asia (CEMCA)
- Approved by university authorities
- Available on University web-site
- Faculty can develop and share educational resources under appropriate open licenses

Purpose of the Policy

- Make material available under Creative Common License;
- Support voluntary participation of faculty and other members in developing OER contents;
- Clarify publication rights and licensing issues;
- Provide guidance in development of OER materials prior to sharing them worldwide and
- Define collaboration within and without university with the intent to allow access to open content.

Different Aspects of OER Policy

- Definitional issues
- Composition of production team
- Purpose of the policy
- Applicability
- Types of licenses
- Quality assurance and review system
- Liability
- Role of the faculty /teachers/content developers
- Institutional arrangements.

Implementation Strategies

- Construction of a prototype of the OER repository completed
- Ten Departments to offer twenty five online courses using institutional Moodle LMS during the coming semester
- Three-day Workshop on E-Content Development using OER for Quality Learning conducted to develop e-content for online platform.
- Two-day Review Programme planned to assess and monitor the quality of the developed e-content before making available online.
- Three-day Workshop on ICT-Integrated Teacher Education conducted to train teachers across Himachal Pradesh to Extend the Programme

MOOCS Prakosht

- MOOCs Prakosht constituted in the academic year 2015-16

- MOOCS Prakosht:

a) Conducted one week Faculty Development Program (FDP) on the topic, “Emerging Trends in ICT for Higher Education” from 9th to 15th June, 2016

b) Prepared the Draft Ordinance on MOOCs and circulated among all the faculty members and is ready to be put up in the next Academic Council meeting

c) Uploaded course content for one theory and one practical course on MOODLE platform and offered to students of Department of Physics and Astronomical Sciences in offline mode.

d) This is a pilot study to understand the system requirements and manpower needs to successfully implement MOOCs in the university

e) Started MOOCs corner on the university website

Digital Financial Literacy Campaign (VISAKA)

- Launched *Vittiya Saksharata Abhiyan (VISAKA)* via
- Motivating students for registration as volunteers to train 10+1 families in digital mode of payment
- 219 Students along with faculty members got registered on the Portal.
- A team of 14 Master Trainers constituted, where each Master Trainer to train and monitor the activities of a group of volunteers
- Action committees, namely Field Facilitators and Core Monitoring Groups constituted
- On 16th December 2016, a meeting with the Bankers organized.
- The goal of CUHP as a Cashless Campus has been achieved up to 95%.

Digital Financial Literacy Campaign (VISAKA)

- Posters, Pamphlets and other publicity material have been printed and circulated amongst the CUHP-adopted villages to popularize *VISAKA*,
- Information about the same also available on the university website.
- Whatsapp and email groups created for all the Master Trainers
- 3 Training and Awareness Camps with the villagers successfully organised.
- University received an overwhelming response from most of the volunteers,
- 02 of them got awarded by the Hon'ble HRD Minister for their best efforts on 8th March 2017.

Digital Financial Literacy Campaign (VISAKA)

- Initiated a wide campaign to motivate students to work for Digital India Mission during their summer vacations
- Connected this mission with our credit-based Community Connect Project
- On the call of Hon'ble MHRD Minister, a wide campaign initiated to motivate students to work for Digital India Mission
- Students motivated and trained to educate their family members, relatives and other members of community to make transactions through BHIM.

Cashless Transactions

- CUHP is almost a 100 % cashless campus
- All payments in the finance department are made online
- All admission and recruitment processes are done through online to promote transparency.
- Arrangements made whereby students can deposit the admission and tuition fee online.
- These efforts have led to Transparency and Efficiency

Library Resources

- Provides Online Public Access Catalogue to find and locate the library resources
- J-GATE is implemented for integrated access to Journals received through INFLIBNET Consortia and EZProxy to provide remote access to Journals
- Subscribes to e-books through DELNET
- Software of University Libraries (SOUL) for library automation
- Access to National Digital Library

Library Resources

- On-line access to teaching and learning resources from Cambridge University Press, Emerald, ISID, JCCC, JSTOR, Oxford University Press, EPW, , Project Muse Springer Link, Talyor and Francis, Online Wiley Blackwell and J Gate

- E-resources through UGC e-shodh Sidhu Consortium provided by INFLIBNET

On-Line Resources

- The syllabi and other important notices are available on University web-site.
- Separate links provided for IQAC, SPARASH, MOOCS, on the web-site
- Results and other important information available on University web-site.
- MOU with National Academic Depository (NAD signed)

THANK YOU VERY MUCH



PRESENTATION BY

PROF. J. L. KAUL

VICE CHANCELLOR

Welcome To . . .

H.N.B Garhwal University
(A Central University)

NATIONAL CONVENTON ON DIGITAL INITIATIVES FOR HIGHR EDUCATION

VIGYAN BHAVAN, NEW DELHI

8-9th July, 2017

Vision

To achieve excellence by empowering all stakeholders through promotion of innovations in the field of higher education by imparting training and education, and encouraging research for the development of the country with specific attention to the mountain region

Mission

To stimulate the academic environment for promotion of holistic learning and research and contribute to the Nation's growth. To inculcate values and impart skills for shaping able and responsible individuals admitted towards the intellectual, academic and cultural development of society

Online Admission Portal

ati Nandan Bahuguna Garhwal University
(A Central University)
Srinagar (Garhwal), Uttarakhand-246 174

Welcome to EDRP System

:2 M.Ed Entrance Result 2015

Semester 3
Enroll No/User Id :
Password
Registration login

- Online Pay Slip
- CBCS Based Examination Online Form(Only for First Semester
- Click here for Annual Examination Online Form(B.A./B.Com./B.Sc. for Annual System(2nd and 3rd years)

Important Notice :

- **List of Students whose form has been not verified by the college, if college will not verify the online form , University will reject such online form**
- **All colleges should upload the data of those students who are facing problem in registration using the College Login**
- **All the colleges must update the College Contact detail, All the**

Hemwati Nandan Bahuguna Garhwal University, Srinagar
Srinagar (Garhwal), Uttarakhand-246 174
(A Central University)

Application Form for

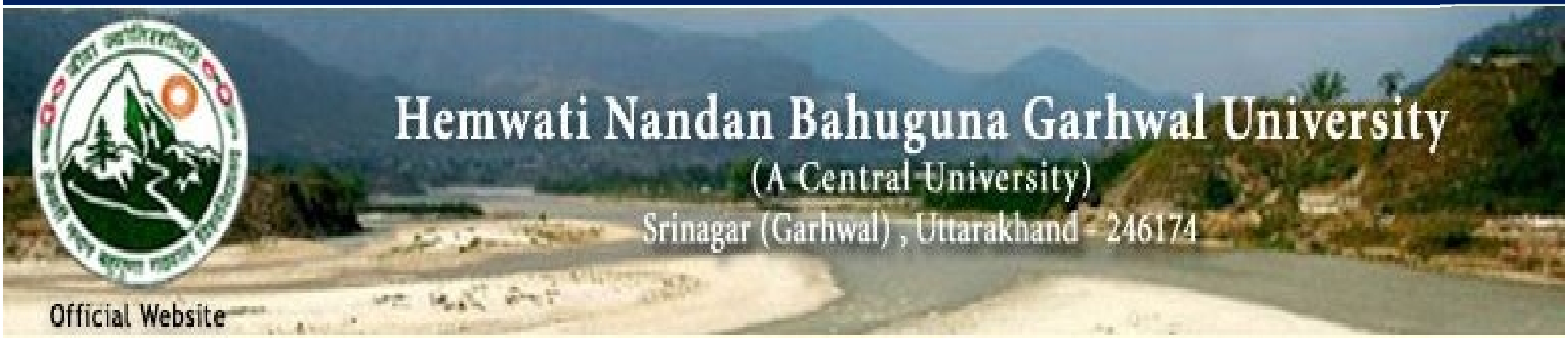
User Id: 9322338

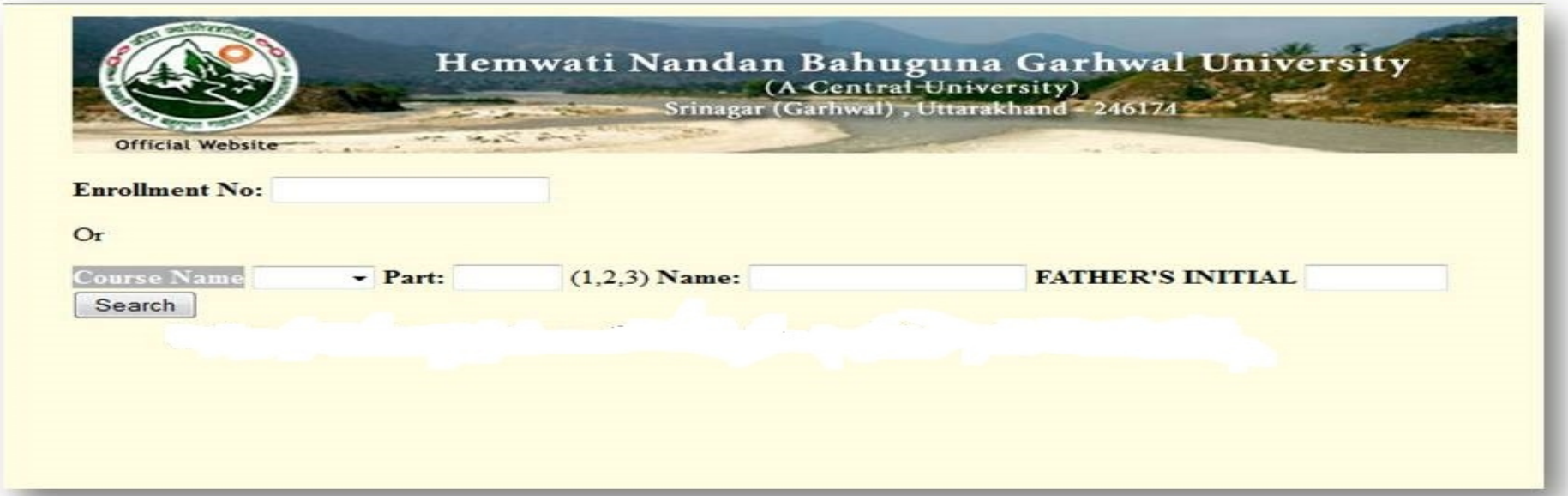
Admission Form | Education Detail | Subjects choice | Print Examination Form | Logout



Browse your Photo	Capture Images Files Upload photo
Browse your signature	Capture Images Files Upload Signature
Candidate Name:	Chandi Prasad
Father Name	Jashodharanand
Father Initial	JN
Mother Name	Pramila Devi
Course	Advance P.G. Diploma in Environmental Economics
Part/Semester	3
College Name	SCHOOL OF LIFE SCIENCES
Medium	English
Admission Type	Regular
Physically Handicapped(PH) category	NO
Sex	Male
Cast category	GEN
Religion	Hindu
Date of Birth	1992-07-01 (YYYY-MM-DD)
Mobile	9456720397
Email	cpsemwal2@gmail.cor
Permanent Address	Village-Tarsali, PO- Pha
Distt	Rudraprayag
State	Uttarakhand
Pin	246471
Country	India
Save your records	Save

Online Result Portal





ICT in Library







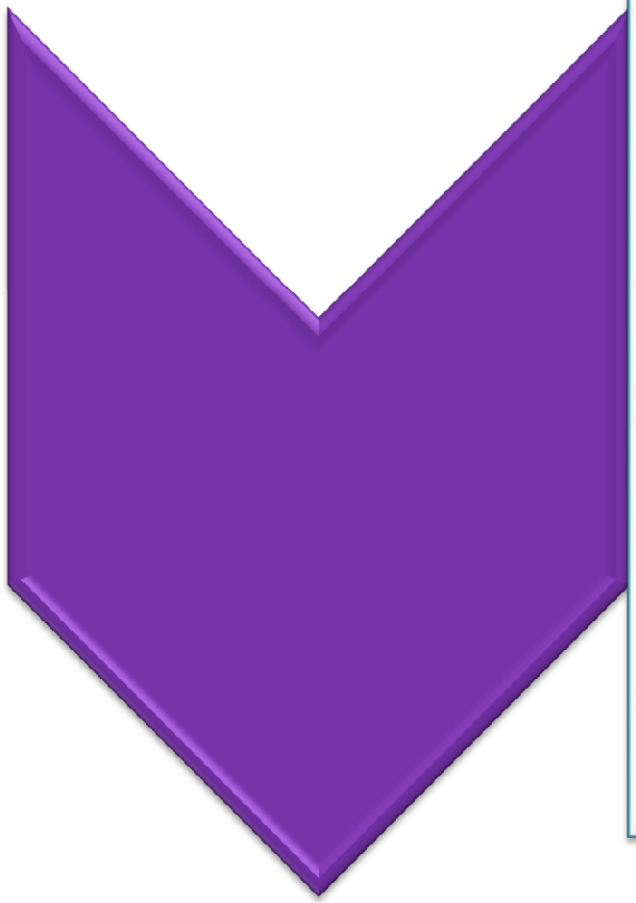
- Internet access
- INFLIBNET facility
- Theses uploaded on SHODHGANGA
- e-Pathshala

ICT Facility

ICT FACILITY

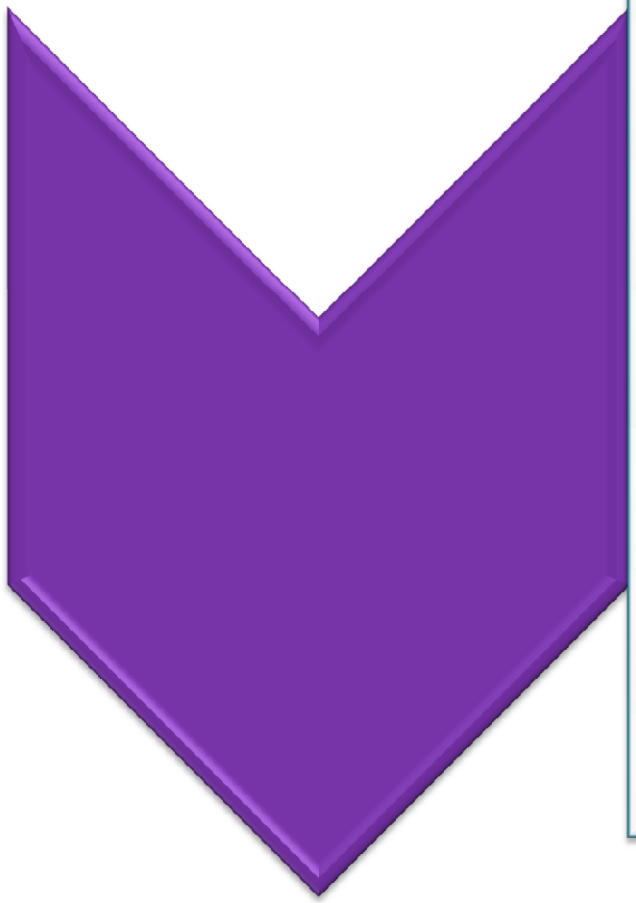
- 1,040 Computers in campus
- Wi-Fi enabled campus in Process
- Video Conference Facility
- Smart Classrooms:10
- Biometric attendance in process
- LCD Projectors: 25
- On-line admission
- On-line portal of examinations
- e-Governance initiated

Recent Achievements/Initiatives



- Successful introduction of CBCS system in all undergraduate programs
- Establishment of Internal Quality Assurance Cell (IQAC)
- Establishment of Faculty Development Centre under Pt. Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT)
- Rationalization of cadres of non-teaching employees
- Completion and making operational Academic Activity Centre, Community Centre and Students Activity Centre

Recent Achievements/Initiatives (Contd.)



- Establishment of Innovation Club and Inspired Teachers Network
- Adoption of 12 villages of five Gram Panchayats by the University
- Encouraging participation of stakeholders in decision making
- On-line submission of applications, examination forms, awards of examinees, examination results and generation of mark sheets
- ICT enabled governance and communication

Systematic process in the design and development of the curriculum

- The Academic Council has resolved to include person of eminence from industries as '*special invitees*' to the Board of Studies (BoS), as and where required, to include the suggestive changes in the curriculum vis-a-vis employability.
- The University also gets inputs from Industry-Academia Interaction Cell, Inspired Teachers Network (ITN), Career Counselling & Placement Cell, Alumni Association and IQAC.
- Enrichment of curriculum is done by incorporating socially relevant aspects as value-added courses e.g. Departments of Business Management, Environmental Sciences and Geology have included 'Disaster Management' course to sensitize the students. The field-visit and field-work to disaster prone areas are helpful to make them socially aware and responsible citizen.
- 'Business Ethics' subject has also been introduced to inculcate the spirit of responsible professional. The Department of Sociology and Social Work has designed the course-curriculum by incorporating such components such as social work camps, summer placement, study tours, project work etc

e-learning resources

- Many departments have smart classrooms with state of the art facilities. There is also internet connectivity to facilitate the classroom teaching in an effective manner.
- The UGC INFLIBNET helps the students and faculty to access and update about latest developments in their respective fields of learning.
- Also, many departments have computer labs and interactive boards for facilitating learning and teaching.
- For effective e-learning and teaching the resources available in the Library are utilized. Students especially of engineering regularly use NPTL (National Program on Technology Enhanced Learning).
- The faculties regularly update the students regarding open-educational resources. The notes of presentations by faculty are also provided to the students.
- There is inspired teachers network (ITN) and innovation club in which the members of the group regularly interact, discuss and disseminate the latest developments in open source community. The Inspired teachers network (ITN) regularly interact with all the stakeholders to share and deliver the output oriented activities.
- A committee to work out the mode and modalities of inclusion of earning credits by students through MOOCs (SWAYAM) is already constituted.
- Setting up of Wi-Fi Campus with free access to internet by the students is under progress.

Library Automation

- The Soul software of INFLIBNET has been approved for library management in the all campuses for inventory control.
- Retrospective conversion process of book collection of Central Library at Birla Campus has been initiated. A collection of more than one lakh books has been classified, catalogued and made inventory available in machine readable form.
- To overcome the shortage of library technical staff, a scheme called ‘earn while you learn’ has been implemented for facilitating library services.

Innovative teaching approaches

- The case method of teaching has been instrumental to make the students understand the subjects easily. Similarly group exercises help them to understand the group dynamics and subject lucidly.
- Constant innovations in the teaching are an article of faith among the teachers at our University. The faculty adopts innovative teaching methods so as to instill analytical approach among the students, which is reflected in the writing and class room interaction.
- Post presentation discussion is integral part of the class seminars. This has certainly enhanced the confidence level of students over a period of time.
- Also practical are demonstrated by audio-visual aids besides the routine procedure.

Student representation in Academic and Administrative Bodies

- President of the Students Union is a member of IQAC.
- President of the Students Union is a member of Anti Ragging Committee
- Student representatives are member of the organizing committees of Cultural and Sporting events conducted by the Students' Welfare Board.
- Student representatives are member of Permanent Cell for Combating Sexual Harassment and Violence against Women.

Capacity Building and Career Counselling

- University Career Counselling and Placement Service organizes personality development programmes for enhancing the language, communication and soft-skills of students.
- Conduct workshop programmes and group discussions for enhancing employability skills.

Mechanism for the evaluation of teachers by the students

- The University has institutionalized mechanism to obtain students' feedback on teachers through IQAC.
- Online assessment of the teachers is done by the students for relevant attributes.
- The feedback is analyzed and attempt is made by the head of the department in coordination with faculty members to address the grey area.

Evaluation Process and Reforms

- Online Enrolment of the students
- Online submission of examination forms
- Online issuance of Hall tickets
- Pre and Post examination work Computerized
- Online declaration of results

Administration

- Aadhar Card No. entered on all Service Books/Personal Files.
- Employee Code No. entered on all Service Books/Personal Files.
- Salary Slip linked to Employee Code No.

Finance

- Online Payment Gateway.
- Mapping on PMFS Portal.
- Annual Accounts on Tally Software.
- Payment of Fellowship (except Non-NET) through DBT.

Promotion of Research

- The University has a separate section to operate the research projects and scholarships where full time dealing assistant and accountant are deputed.
- The Principal Investigator (PI) is granted leave for undertaking travel to study area, attending report presentations etc.
- For smooth running of the project, autonomy is extended to the PI.
- The different departments of the University work in collaboration for research projects of PG students.
- Interdepartmental research work is also promoted by a provision of co-supervisor in Ph.D. from other department of the University/ other institution.
- The University has been running collaborative projects with National Medicinal Plant Board (NMPB), Himalayan Forest Research Institute (HFRI), JUIT, Institute of Himalayan Bioresource Technology (IHBT), for identification of superior genetic stock of *Picrorhiza kurrooa and Valeriana jatamansi*; Govind Ballabh Pant University of Agriculture and Technology (GBPUAT), National Medicinal Plant Board (NMPB) for Genetic variability and chemical and molecular determinants of *Acotinum balfourii*; State Medicinal Plant Board (SMPB), NMPB, HRDI for establishment of model nursery, MoES-DST for Strain budget crustal deformation, Jamia Milia Islamia for Translation; DST-NSF for ecological and taxonomic study of ectomycorrhizal fungi; WWF-India for determining the environmental flows of the Ganga and Ramganga; DCFR under outreach program for Sustainable utilization of mountain fishery resources.

Outreach Programmes

- The Community Development Cell (CDC) has established two Community Libraries i.e. at Janata Inter College, Jamnakhal and Janata Inter College, Dhamkeshwar, of the 12 adopted villages (4 Gram Panchayats) in Pauri District under '*Unnat Bharat Abhiyan (UBA)*' in March 2017. Initially, more than 500 books related to general knowledge, self employment, competitive examinations etc. were donated to both the centres.
- About 2000 plants were planted around the nursery campus and nearby villages by the Department of Forestry & Natural resources in 2016-17. In February 2017, the department received INR 3.70 lakh for the supply of 50,000 seedlings from Uttarakhand Forest Department.
- High Altitude Plant Physiology Research Centre (HAPPRC) with its alpine station at Tungnath (3600 m asl) in District Chamoli has successfully extended its R&D outputs to the society through establishing demonstration units as *see & adopt* and organising *on & off farm* training programmes for capacity building of the stakeholders, and transfer of technical know-how of cultivation of high altitude medicinal and aromatic plants (MAPs).
- Adopting the agro-technology developed by the HAPPRC, numbers of farmers have initiated the cultivation of MAPs in their agriculture/waste land. Village Ghesh in Deval block of District Chamoli is a model village for cultivation of *Kutki*. The centre also helped in establishing MoU between MAPs growers and Pharma Companies for marketing of raw produce, thus ensuring income generation. During 2016-17, 5350 seedlings of MAPs were distributed/ planted.
- Considering the need of *ex-situ* maintenance or conservation of various sensitive plant species (rare, endangered, threatened and endemic ones) to ensure the availability of their base material for various purposes, HAPPRC has initiated establishment of *ex-situ* backup under National Mission on Himalayan Studies Programme of MoEFCC, Govt. of India through its nodal agency GBPRIHESD, Kosi-Katarmal, Almora. This *ex-situ* site will be strengthened as *Nature Interpretation Site* by the centre.

Problems

- **Expediting the Construction of Chauras Bridge over River Alaknanda**

Govt. of India sanctioned Rs. 13.81 crore as 100% Central Assistance to the State Govt for construction of the motorable bridge on Alaknanda river at Srinagar to link the Srinagar with Chauras campus of HNB Garhwal University. The bridge was scheduled to be constructed by the year 2007. But, in spite of the repeated requests by the University authorities, the construction of bridge is yet to be completed. This is creating serious problems in the movement of students and faculty between the two campuses. I have been informed by the University that the pedestrian bridge linking the Srinagar-Chauras campus of the University is in bad shape due to heavy pressure of movement of the students, faculty members and general public on it. Also, the approach road to this bridge has been damaged due to incomplete construction of the motorable bridge, which may cause accidents of the persons passing through this road. Recently there has been several landslide stopping the movement through this bridge for these days facing the University to suspend teaching on these days. The University is strengthening its infrastructure facilities as it has been upgraded as Central University. But, lack of the motorable bridge linking the Srinagar-Chauras campuses causing problems and hindering the proper development of the University.

Deflection of the river course and Protection wall to save University Stadium and Academic Activity Center

Being located in hilly region, most of the time our University suffered from natural calamities which hampered the infrastructural development of the University. In 2010, there were landslides due to heavy rains in the region which damaged 15 different locations in the university campuses including Research Centre in High Altitude Plant Physiology Research Centre, Archeological Museum and part of Administrative Building. In 2013, the Huge Disaster of Uttarakhand has badly damaged a massive part of University stadium and other structures at Chauras campus due to change in the course of river Alaknanda. University has requested Central/State Government for financial support (Rs. 60.00 crore) to address the problem and District/local administration for deflection of the river course on priority basis to save the campus. However, nothing has been done till date. The situation is aggrieving day by day as the river course is continuously hitting the campus even after receding the flood.

- **Regularization of 177 daily wages employees** who have been working in the University for more than 15 years as one time measures.
- **De-affiliation of 171 Institutions** already affiliated with the University before upgradation to Central University.

H.N.B. Garhwal University



THANK YOU

Digital/Other Initiative/ Innovations

Digital Initiatives

- All the faculty members and staff are provided with Laptops and requisite Computer Systems.
- Smart cards are used for identification and payments in campus.
- File Tracking System in place.
- Bio-metric in place.
- Intranet Server in place.
- Official Email IDs provided to all employees of the University
- Automation of Examination Wing
- Automation of Finance Wing – Adhaar / PAN mandatory, All transactions cashless

Digital Initiatives

- Online Admission Process
- Recruitment Process automated
- Inventory / Store Management System in place
- Hostel Management System operational
- Wi-fi Campus
- Implementation of NAD – Pilot Testing in progress
- Campus Connect – Passive components almost complete
- All the personal documents are in digital form .
- Statistical data management wing.
- Implementation of payment gateway

Teaching-Learning Process

- Teaching Plans and Study Material on University website.
- Skill Level learning
- Initiated the Campus Start-up Track for promoting innovation/technology
- Industry Academy interface
- Coaching Classes for Competitive Examinations started from 2016 onwards
- Capacity development of Teachers

Innovations in improving the administration of Institutions

- **Biometric**
- **File Tracking**
- **Intranet Server**
- **Official E-mail ids for all employees of the University.**
- **All the personal documents are in digital form.**
- **Aadhar/Pan mandatory.**
- **Automation of Finance Wing.**

Measure for promoting research

- Best Teacher Award
- Best Innovative idea by University student
- Best Innovative idea by female entrepreneur/student of the region
- Minor Research Project
- Best Researcher award
- Financial support for participation in National and International Conferences

Major efforts at involving with the community for improving livelihoods

- Capacity building training programmes on Effective managerial Skills for local artisans and kalamkari workers.
- University Business Incubation Centre is promoting Grassroot innovators
- **Community College,** Central University of Jammu in collaboration with NASSCOM Foundation/ Planet Ganges conducted **Campus Employability Programme/ Placement Drives** across the state. **310 students** participated in the Campus Employability Programme, 2017
- Community College, Central University of Jammu has conducted the Training Programme for the Officers of Department of Horticulture Marketing and Planning, Jammu, **18th -19th March 2017**

- **Promoting digital education:** University has initiated the process for e-content development of various disciplines. Initiated the process for starting MOOC and GIAN courses

- **Swachh Bharat Abhiyan:** NSS volunteers and Social Work Department regularly organizes awareness and cleanliness drives in the vicinity of the University

- **Unnat Bharat Abhiyaan:** The University has adopted five villages under Unnat Bharat Abhiyam

- **Action taken on reducing the legal cases:** Employees and students Grievance Redressal Forum have been strengthened
- **Plan of Action for promoting the quality of teaching:** Faculty is encouraged to attend GOC/Refresher and other academic Workshops. Academic Audit is conducted periodically .

Actions taken on
Digital Initiatives for Higher Education

by

Jamia Millia Islamia

Prof. Talat Ahmad
Vice Chancellor

Various Initiatives Undertaken

- E-Processes
- Initiatives under SWAYAM
- Initiatives under SWAYAM- PRABHA
- Initiatives under the National Digital Library
- Initiative under the National Academic Depository
- Initiative under e-pathshala



E-Processes

- Developed an in-house Enterprise Resource Planning (ERP) system with a fully integrated 18-module including finance and File Tracking System (FTS).
- All the employees (teaching and non-teaching) and students are provided E-mail accounts.
- All the office orders, circulars, notices, advertisements are floated through Email other than displaying on JMI site.
- A single portal based On-line admission process from School to Ph.D. Program functional since 2015-16.
- Provision for Online transcript.

Cashless Payments Facility

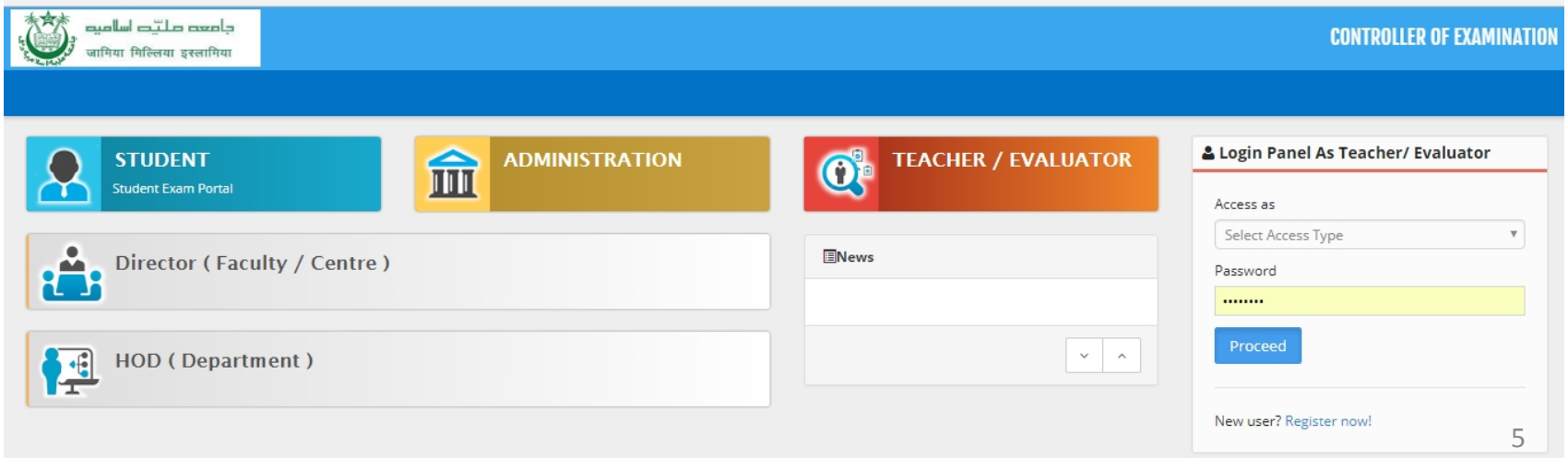
- **Cashless payments**
  - Salary and Personal Reimbursement
  - Pension and Other payments to Pensioners
  - All Suppliers and Vendors

- **Facility for Students**
  - On-line fee deposit
  - Cashless refund
  - Payment of Scholarship and Fellowship.

- Complete Cashless transactions with Digital Payments towards paperless financial processes.

A dedicated portal for Exam related activities such as submission of Exam forms, Admit cards, Declaration of Results, Score cards, Marks entry and others.





Initiatives under SWAYAM

- Appointed a Nodal Officer (Director, IQAC) to coordinate the activities related to Massive Open Online Courses (MOOCs).
- Submitted courses on Materials Chemistry, Polymer Chemistry, Physics, Bioinformatics, Biotechnology, Biochemistry, Sensors and a course on Modern Arabic language through CEC.
- Developed several e-content and provided for access to students on JMI portal http://jmi.ac.in/jems/ (Jamia e-content Management System).

Initiatives under SWAYAM PRABHA

- Received several e-education projects by Anwar Jamal Kidwai Mass Communication Research Centre (AJK-MCRC) from MHRD for
  - Direct to Home (DTH) 24/7 Educational Television channel
  - Swayam Prabha-Massive Open Online Courses (MOOC)
  - e-content production for undergraduate courses (Phase-I & II)
  - e-PG Pathshala
  - Providing e-Content and education enrichment program for Vyas TV Channel
  - Initiated Country Wide Class room on DD National Channel
- AJK-MCRC created several digital courses related to **Information, Communication and Management** that are to be made available on Channel # 5 of the SWAYAM-Prabha. These digital courses are for UG and PG levels for Mass Communication, BBA, Business Management, Retailing and Insurance, Hindi Journalism, Photography and Videography.

Initiatives under the National Digital Library

- Since 2016, Jamia Millia Islamia joined the National Digital Library (NDL) Project initiated by the MHRD
- The Central Library of Jamia Millia Islamia is equipped with 100 workstations that are gateways to the online resources (15000 peer reviewed e-Journals, 38 Databases and 7 Bibliographic/Citation Databases besides I.7 lakh e-books).
- JMI has digitized about 200 manuscripts in Urdu, Arabic and Persian pertaining to the period 1591-I922 (rare collections) and over 1000 Ph.D. dissertations, available on the NDL Site.
- The Central Library is organizing an International conference of Asian Libraries for Expanding Digital Footprints: Role of Libraries & Information Centers from October, 26-28, 2017.

Initiative under the National Academic Depository (NAD)

- JMI was nominated by UGC as Nodal Institute for organizing a workshop for North India on awareness of National Academic Depository program of MHRD in Oct. 2016.
- Looking forward for active participation in NAD for providing digital Mark sheets/Certificates as we have already digitized mark sheets for several courses.

Initiatives under e-pathshala

- Department of Geography was awarded 15 courses under e-pathshala program of UGC
- JMI has also been asked to prepare 15 courses on Geology with Prof. Talat Ahmad, VC, JMI, as the PI and a Co-PI from Department of Geology, Delhi University.
- The Faculty of Law presented a module on JURIMETRICS in coordination with National Law University, New Delhi.
- The Centre for Culture, Media and Governance is developing a PG program on Media and Communication Studies with 360 Video programs.

JMI Developed Australia-India Credit Transfer Database Website (australiaindiacredittransfer.org)

The objective of this initiative is to enhance student's mobility between Australia and India by increasing awareness of existing credit transfer arrangements.



With a motive of facilitating Students to study at their Own Convenience Anywhere Anytime

Thank you

JAWAHARLAL NEHRU UNIVERSITY

जवाहरलाल नेहरू विश्वविद्यालय

National Convention on Digital Initiatives for Higher Education

4th July, 2017

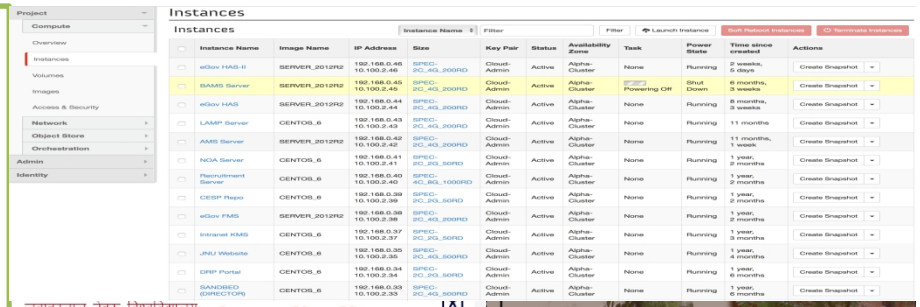
ICT Infrastructure and Network….

❖Implemented data centre services for Hosting and Management of central ICT Infrastructure, eGovernance applications of the university on **JNU Private Cloud Services** with the implementation of SDN and using open stack platform.

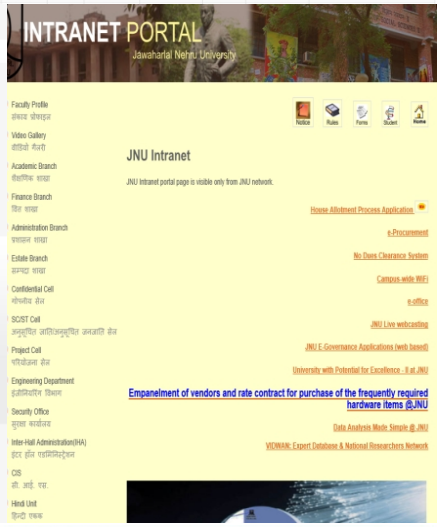
❖24x7 availability of JNU **Website and Intranet Portal** to provide access of ICT Applications to Public, Staff, Faculty and Students. New **CMS based website with 100+ micro-websites of the university - beta testing** is in progress.

❖Presently, 12,000+ nodes are connected on the **JNU Network (Intranet Channel)**, which is being served by Servers, Storage, Switches, Routers, resilient network design and Network Security devices to provide services to the various administrative and academic activities of the university.

❖Laid down **40.0 KMs OFC in RING Mode** across the campus area of 1019 Acre. One of the complex & largest project amongst the central universities/ institutes of India. JNU Campus network runs over 10Gbps high-speed OFC backbone with an internet link speed of 1Gbps from NKN. **JNU also acts as PoP to connect other 9 NKN connected Institutes adjacent to the university campus**. Commissioning of 10Gbps NKN Internet Bandwidth is in progress.











…….ICT Infrastructure and Network

❖Deployment of WiFi facility in **hostels and Strengthen the existing WiFi facility in the Academic Complexes**, deployment of a largest WiFi Project of 2000 Nos Access Points among all the institutes/universities of India and in Asia. The expansion of Wifi in the remaining areas of the campus is awaited for approvals of MHRD/UGC.

❖Strengthening and Expansion of **JNU Campus Network (Wired and Wi-Fi)** in all Academic Complexes, Guesthouses, hostels and offices of the university across 1019 Acre Area of the Campus with 90+ Network Distribution Points.

❖Implemented **JNU Email services with SSO** for Faculty, Students and Staff.

❖Implemented **Access Control and Biometric based Attendance System**

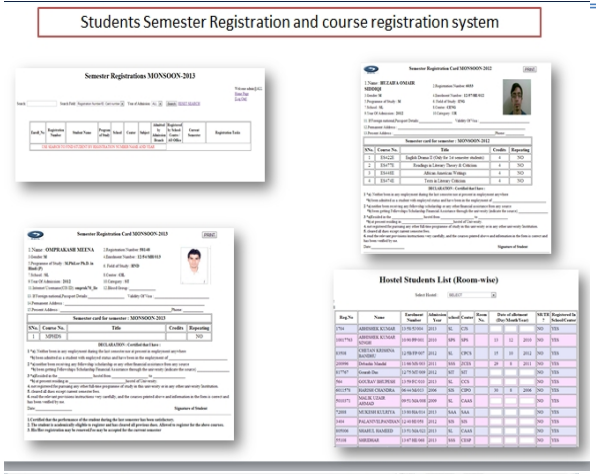
❖Implemented **VPN , SMS gateway system and CCTV Camera** at the critical entry points

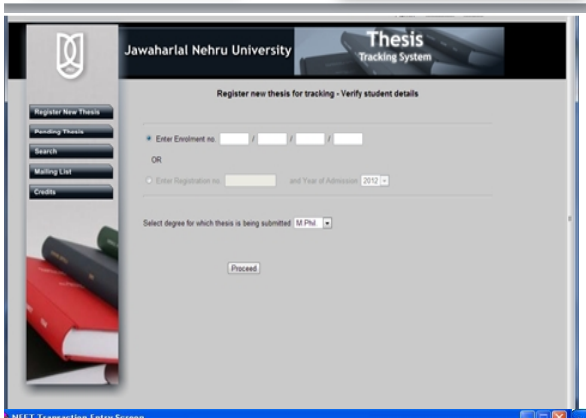
❖Implemented Library Management Software and e-resources access to JNU community and university's affiliated institutes with 24x7 availability.

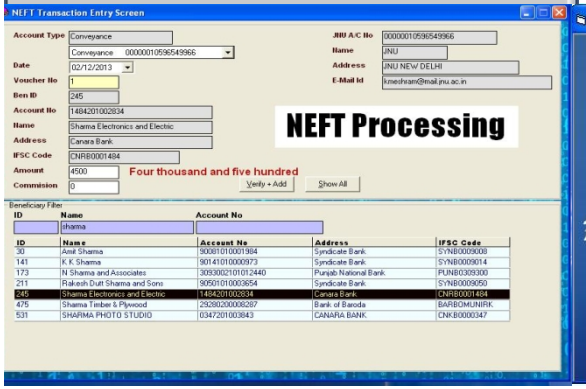
❖Hardware maintenance of the **desktops and all other ICT related peripherals** , Managed **Campus Wide AntiVirus** at Endpoints.

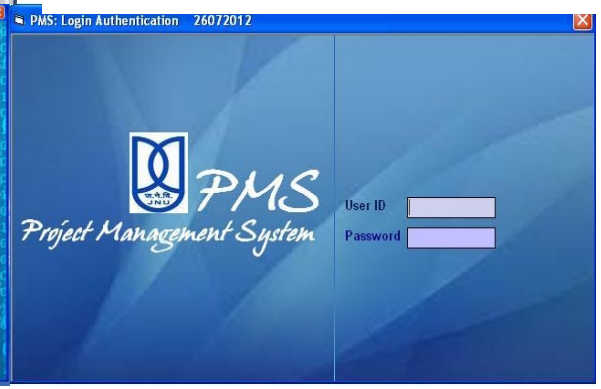


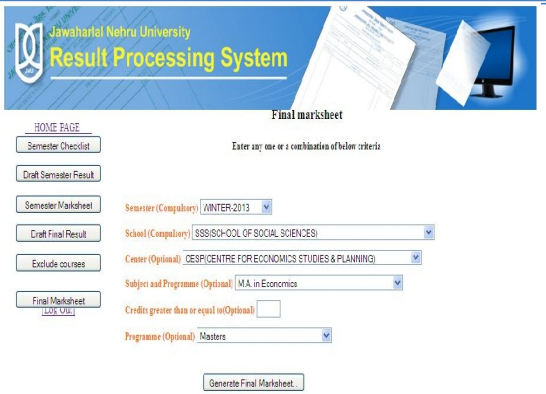
eGovernance Applications….

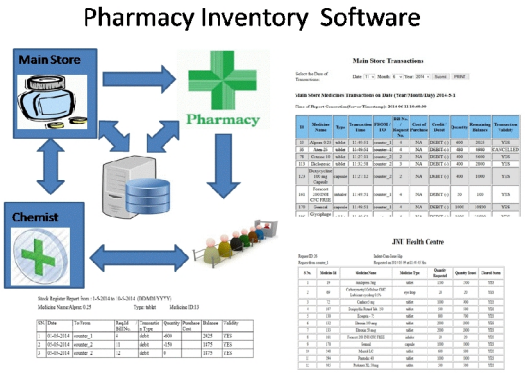












e-Governance Initiatives

In-house Developed Softwares:

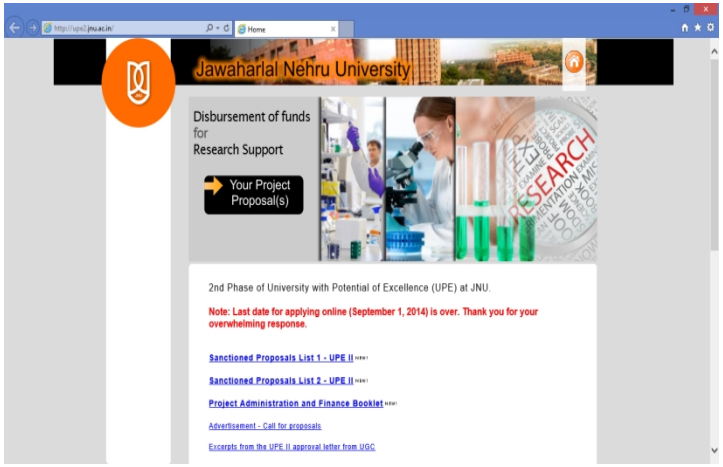
✓Student Life Cycle Management Software (Post Admissions, Semester Registration, Hostel Allocation, No Dues Clearance, Result Processing , Marksheet, Degree Printing etc.) under **JNU EduERP initiatives**

✓**Thesis tracking** and Management Software Expanded

✓Health Centre **Pharmacy Inventory** Management Software.

✓**Research Project Management** Software.

✓**UPE-II Online** projects submission.

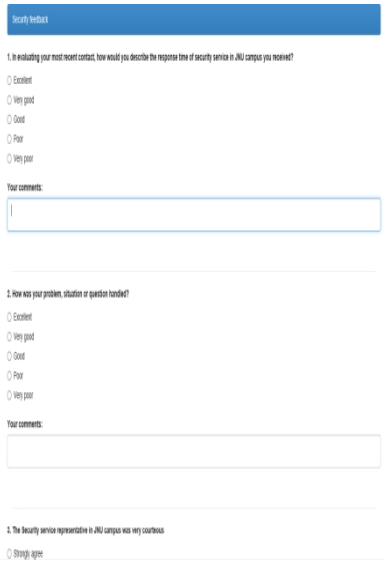


……..eGovernance Applications….

JNU HelpDesk System



Feedback System



e-Governance Initiatives

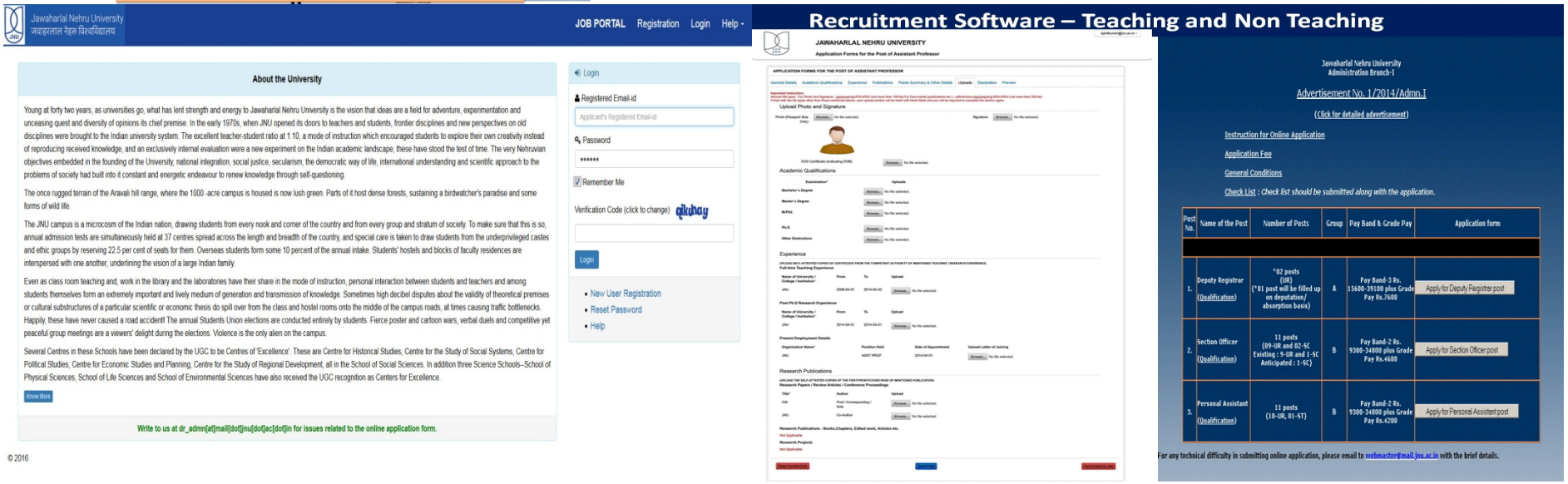
In-house Developed Softwares:

✓Helpdesk Management Software – **Implemented for CIS and Engineering Branch**

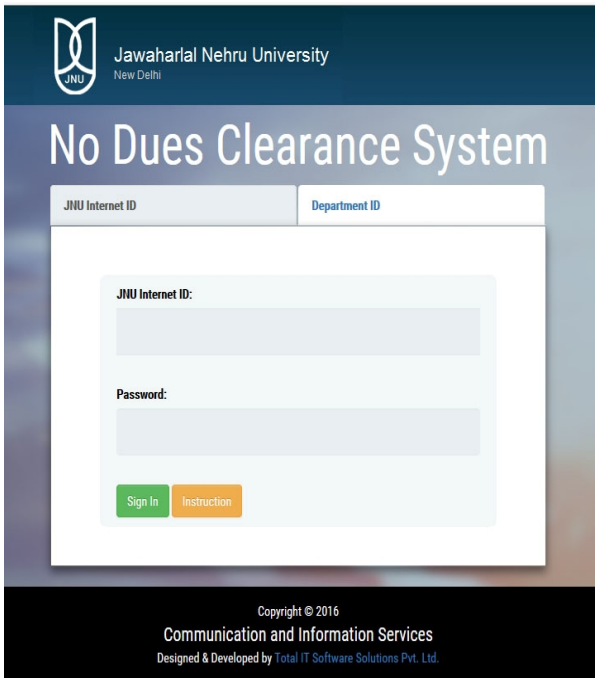
✓ Online Feedback Software – **Implemented for Security Section**

✓Implemented Online Recruitment software for Teaching and Non Teaching Posts with payment gateway.

Recruitment Software – Teaching and Non Teaching



------eGovernance Applications….

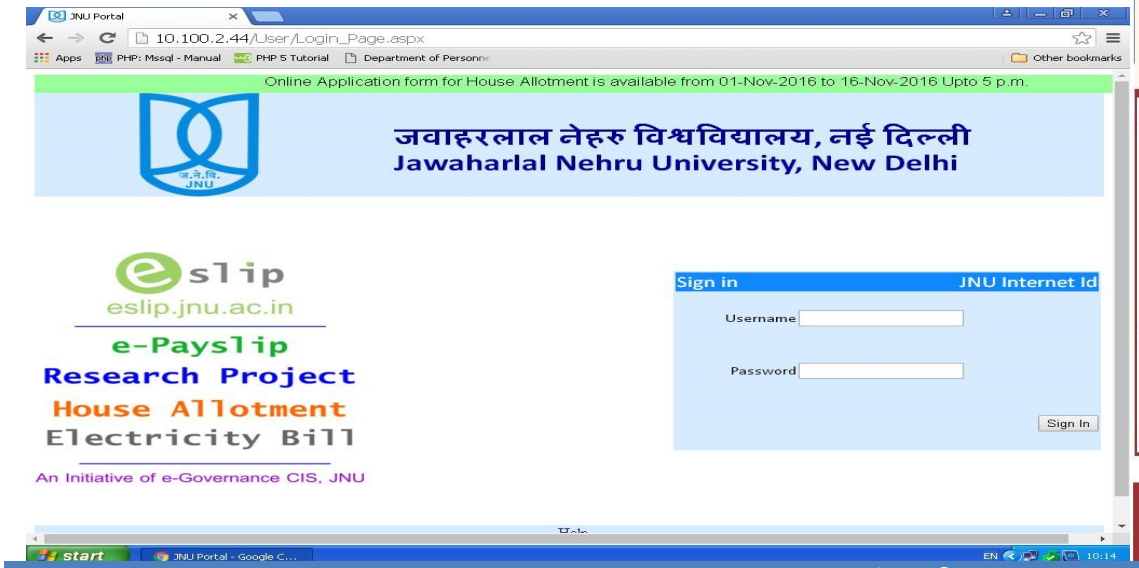


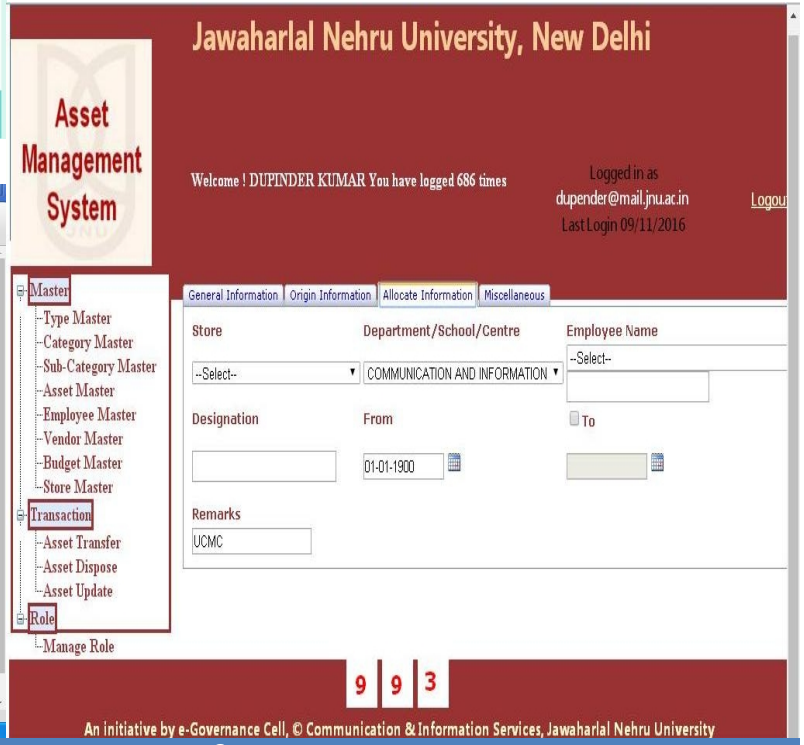


e-Governance Initiatives

In-house Developed Softwares:

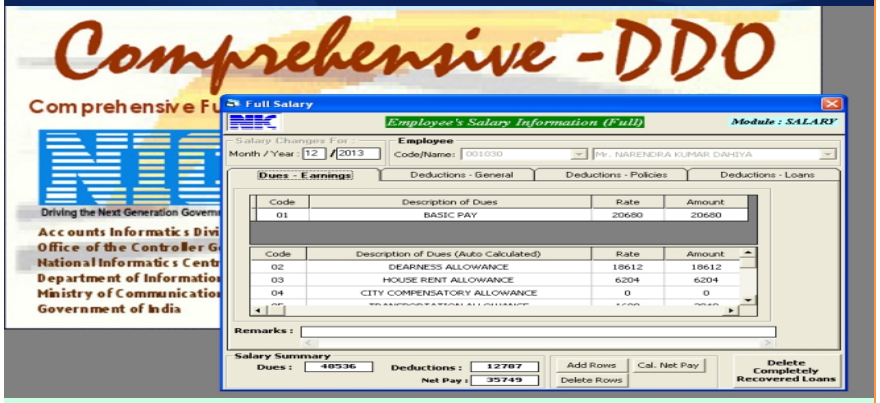
- ✓**No Dues Clearance System**
- ✓Health Centre **OPD Appointments**
- ✓**Guesthouse** Management Software
- ✓**House Allotment System**
- ✓**Asset Management System-** implementation in process

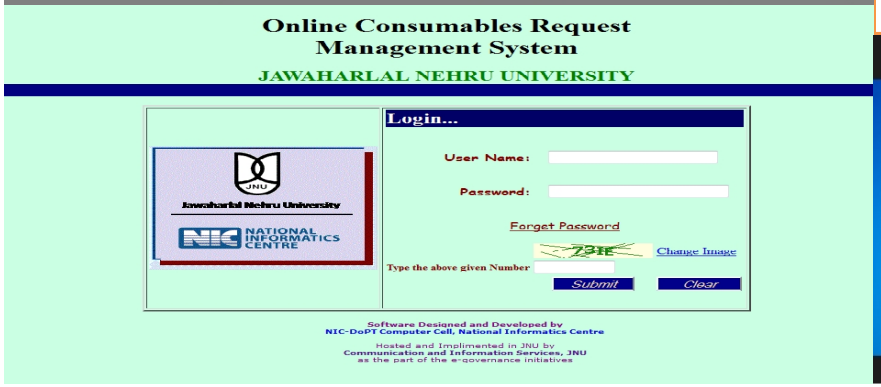




-------eGovernance Applications







e-Governance Initiatives

Implementation of Software procured/arranged from NIC:

✓Implemented **eOffice** Suite in the University – **JNU, the first university/organization across Govt. departments/ministries has more than 1800 eOffice users and implemented all the modules of eOffice i.e. eFile, KMS, eLeave, eService Book and eTour**

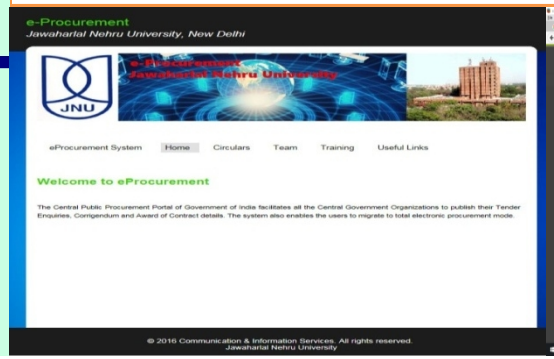
✓Implemented **Salary Management Software** – COM DDO Software

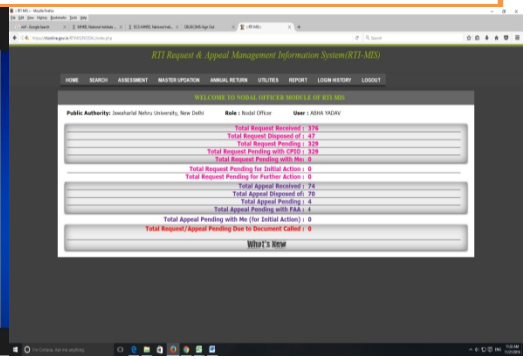
✓Implemented **Online Consumable Request Management** - OCRMS Software**.**

✓Implemented end to end **eProcurement System**, Implemented **GeM** also

✓Implemented **RTI-MIS**

✓**JNU Entrance Test Online Admission System**





ICT Skill Development Training Programmes

❖Hands-on Training sessions for all the modules of **eOffice**

❖Use of **Thesis Tracking System** across university by all stakeholders

❖Students **Online Admissions & Semester Registration** System

❖Online **Consumable and Asset Management** System Implementation

❖**eProcurement and GeM**

❖Basic and Advance hands-on sessions on **MS Office, Networking, Email and Internet**

❖Use of ICT Tools for Office working in **Hindi Language**

❖Special Trainings & workshops for the Technical Staff of the university on **EduERP, CMS, LMS, Cyber Security, Cloud Computing, Open Source Platform and Programming**

❖Other ICT programmes like **Digital Finance Literacy, Digital India Week, Good Governance Day**, etc as and when directed by the UGC, MHRD and other departments of Govt. of India

















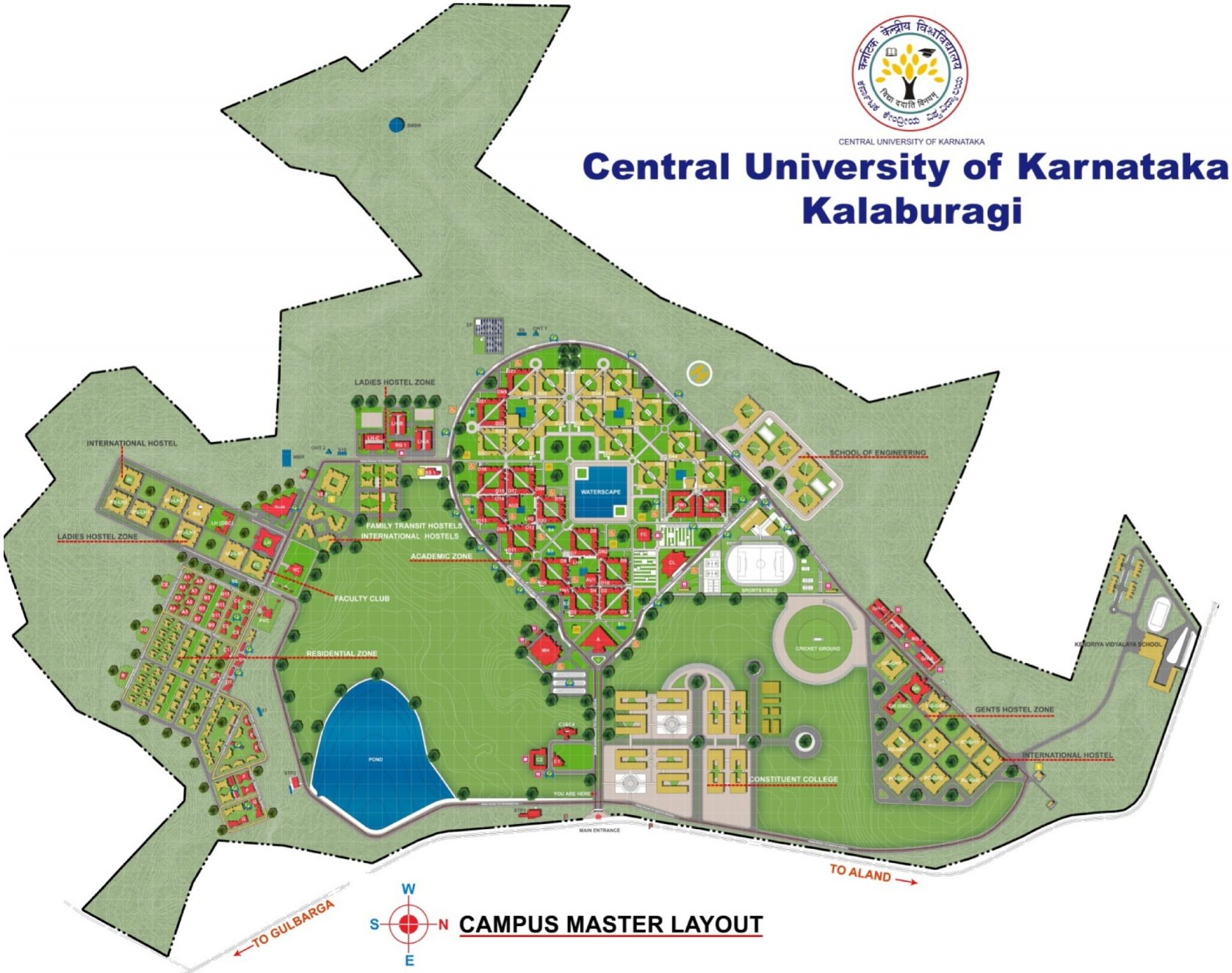


Central University of Karnataka

Digital Content at CUK

CENTRAL UNIVERSITY OF KARNATAKA

Central University of Karnataka
Kalaburagi



CAMPUS MASTER LAYOUT

Profile

Establishment

- Act of the Parliament (No. 3 of 2009) as one of the 13 new Central Universities in India during UGC XI plan

Status

- Central University Funded by UGC/MHRD

Jurisdiction

- Karnataka

Location

- 654 acres of land at Kadaganchi & Suntanur villages on the Kalaburagi-Waghdhari Inter-State Highway

Building Area

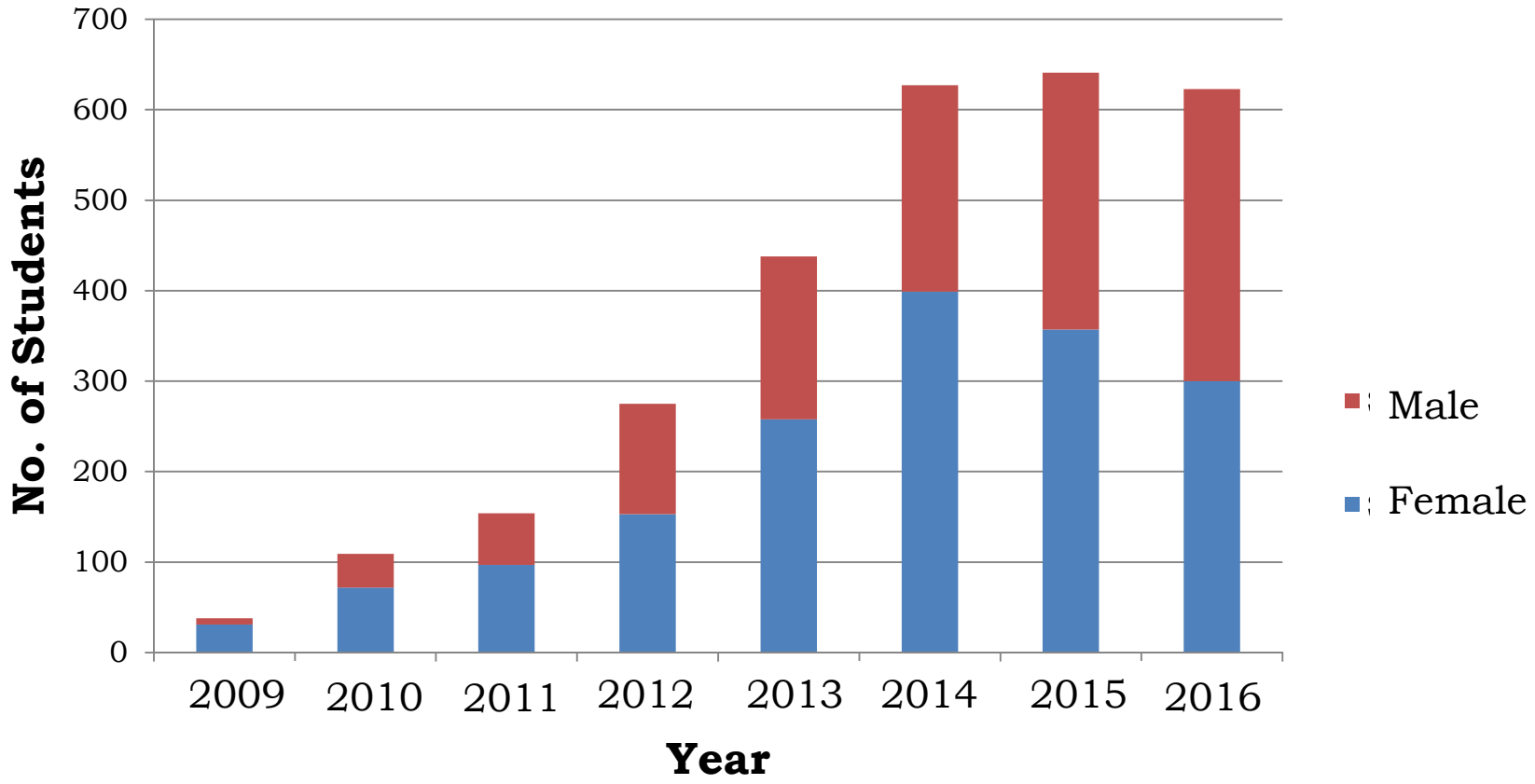
- 27,423.45 Sq.mts.

Students enrolled: 2931 (till 2016-2017)

Graded: B++ by NAAC

Student Intake

Currently 1583 students are enrolled in the University

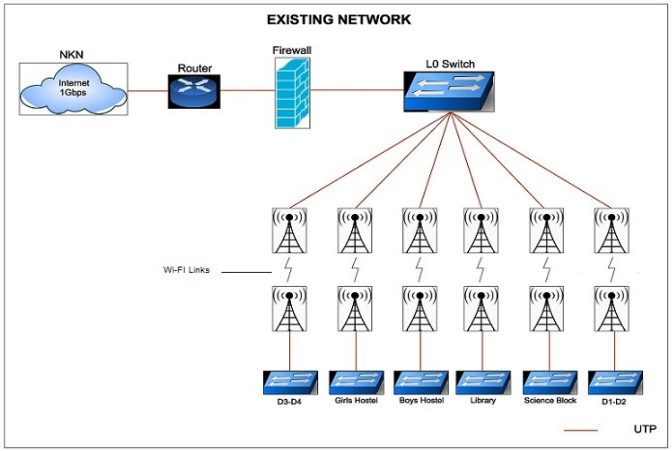


National Knowledge Network (NKN)

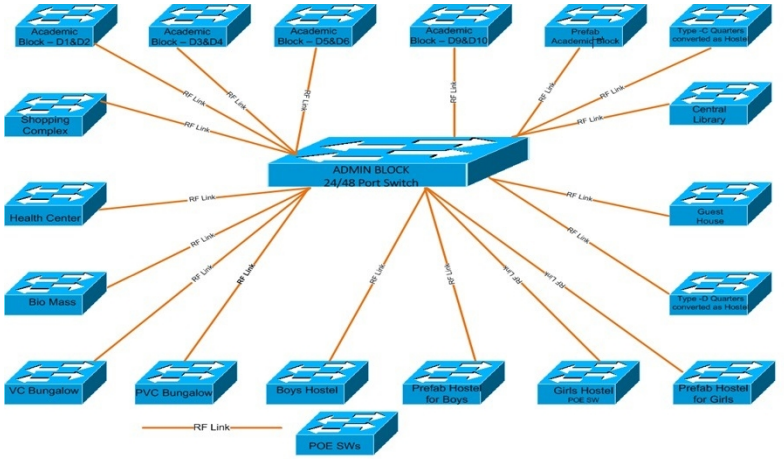
•National Knowledge Network (NKN) 1Gbps leased line internet connection provided under the National Mission on Education through Information and Communication Technology (NMEICT).

- CISCO ROUTER Model: 2800 Series
- FIREWALL CYBEROAM Model: 750 IA
- CISCO Switch CATALYST 3560 series
- D-LINK SWITCH 48 PORTS Model: DGS 1024D.
- HP Z420 Workstation.
- MATRIX Eternity EPABX System.
- 20 KVA UPS System.
- Multi Printer (Canon image Runner Advance 4225)
- Projectors, scanners, laptops

National Knowledge Network (NKN)



Network flow at CUK



Network Architecture

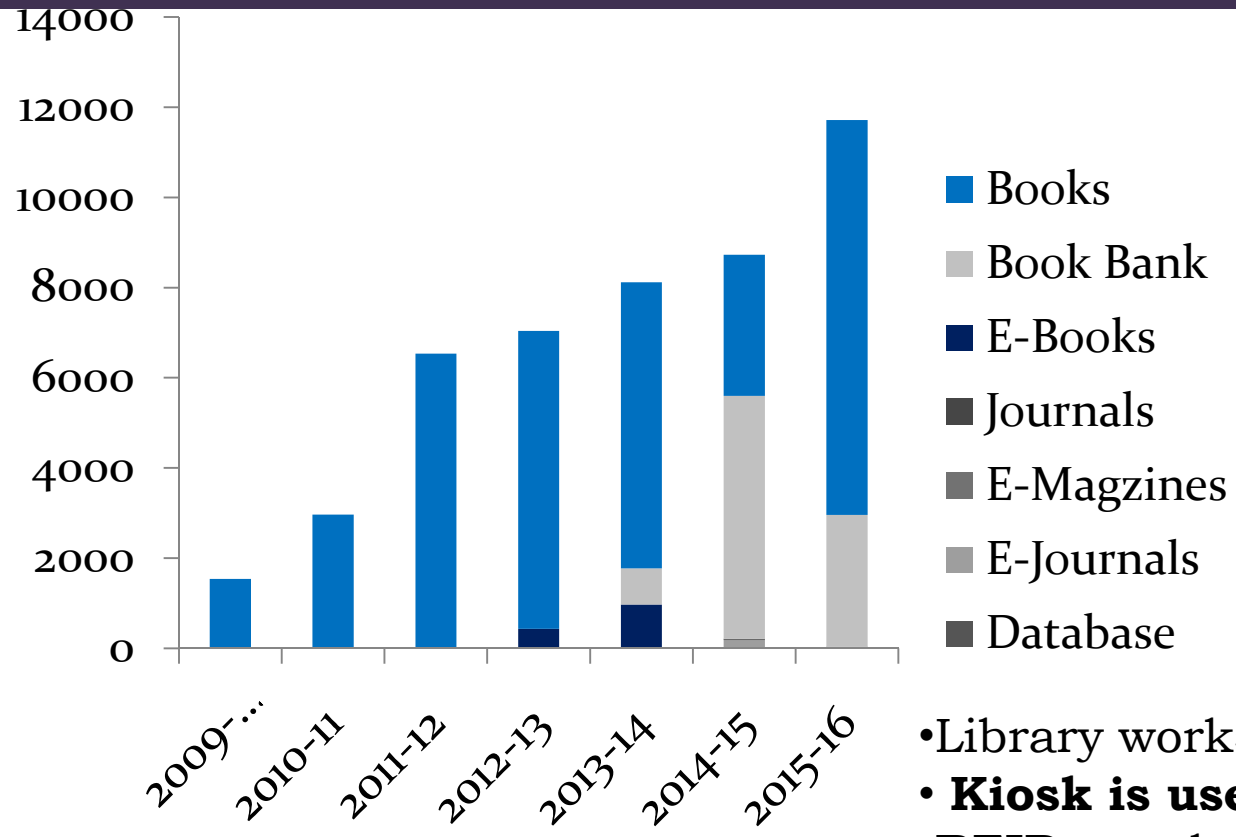
IT infrastructure

Sl. No.	Particulars	Quantity
01	Desktop Systems	310
02	Servers	04
03	HP Z420 Workstation.	01



Video Conferencing and ICT equipment for all the departments are made available.

Digital Library



Resources	Total
Books	41238
Book Bank	9281
Journals(Print)	73
UGC Infonet e-journals	**9897**
E-Books	**903**
Back Volumes (Print)	520
Thesis and Dissertation	30
News Papers	10
General Magazines	25
CD-ROM/DVD	290

- Library works are fully automated
- **Kiosk is used for search and locate**
- **RFID** technology for access and identification

Digital Learning resources

- NPTEL – Local Chapter is hosted at CUK
  - More than 40 Course listed as elective
- IEEE Webinars are hosted regularly
- Faculty are involved in digital learning material
- MOOCS online course are under preparation.

E Fees- Finance Management

- Online fees payment
- Finance management through software
- E- financial report preparation and assessment
- Direct Benefit transfer to students

Procurement through Digital Mode

- **Central Public Procurement (CPP) Portal**
  - ~ 44 tenders floated
  - Paperless tendering/ Procurement

- **GeM portal**
  - GeM procurement initiated

National Academic Depository (NAD) Implementation



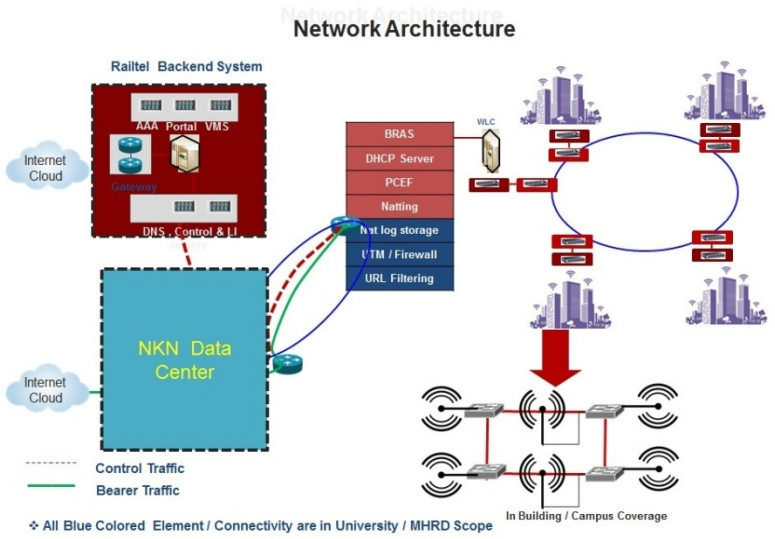
NAD In the final stage of Implementation

Digital Campus

• Wi-fi connectivity with 90 access points (Hot spots) along with existing 40 access points.

•50 Meters range for each node.

•Coverage area academic bay, Hostels, Library, Labs and faculty residence (25% of the areal spread is covered) .



Campus Wi-Fi Connect Programme is under process.

Other initiatives

- First Central Universities Common Entrance Test (CUCET) was being organized by CUK.
- Online Admission Process.
- Online recruitment process is being followed.
- Web –publication of University activities.

Future Initiatives

- Developing the existing IT infrastructure keeping in view of the future needs of the University in education, research and administration'
- Establishment of Central University of Karnataka Campus Networking
- Establishment of CUK- Network Resource Centre
- Establishment of E-CUK services
- Establishment of CUK Language Lab
- E-Content Development Centre / CUK e- Learning Centre


Thank You
CENTRAL UNIVERSITY OF KARNATAKA
ADMINISTRATIVE BUILDING
विद्या ददाति विनयम्

CENTRAL UNIVERSITY OF TAMIL NADU THIRUVARUR

DIGITAL INITIATIVES



Digital Initiatives - Administration

- Introduced ERP based system for hostel – “Hostel Management System”
- Introduced Home built file tracking system – to speed up the processing and track the physical movement of files
- E-tendering process
- Campus LAN network Infrastructures (in progress with NKN)
- Campus Wi-Fi network Infrastructures (in progress with NKN)
- Fee collection through online payment, BHIM transfer and other e-transfers
- Conducting video conferencing /interviews, meetings wherever possible

Digital Initiatives – Teaching/Learning

- All Classrooms are equipped with LCD Projector/multimedia facilities
- Moodle
  - Online assignments, examinations, attendance and grading. Sharing of course material, forum option for discussion with class mates.
- Google Classroom
  - Online assignments, classes, content sharing
- NPTEL
  - Students are encouraged for online courses
  - Proposed to integrate the grades earned through NPTEL courses
- Video Conferencing
  - Special lectures delivered through video conferencing tool like skype, google videos

Digital Initiatives – Teaching/Learning

- MOOC
  - Faculties of different department can design and develop MOOC from their interested mastery topics in consultation with the committee and external experts
  - Exploring the maximum available resources of MOOCs
  - Incorporating MOOCs for Faculty recharge programs
  - Courses of various credits, topics and target audience
  - Bridge courses in vernacular languages
  - Courses in vernacular languages for school students
  - Courses developed by students of academic excellence and research scholars



- ICT
  - Signed MoU with Spoken Tutorials, IIT-Bombay – MHRD initiative



Digital Initiatives - Library



Resources - e-*Shodh Sindhu* – UGC – INFONET Consortium for e-Resources, an online journal consortium funded by the UGC.

Automation of Library - KOHA a very large user community spread across the globe and consists of modules on acquisition, cataloguing, circulation, serials and OPAC.



Access to Knimbus, J-GATE, SCIFINDER, EPWRF India Time Series (EPWRFITS), International Monetary Fund's (IMF) eLibrary, South Asia Archives (SAA) and World E-Book Library (WEL)

Books are secured through RFID

Digital repository for theses and scientific reports





Digital Initiatives - Vision

Paper less governance

Online examinations

Admission to award of degree through digital technology

Online evaluation of courses, student feed back

App based attendance and digitally linked authentication

TEZPUR UNIVERSITY

TEZPUR :: ASSAM

DIGITAL INITIATIVE AT TEZPUR UNIVERSITY

Prof. M. M. Sarma

Vice Chancellor

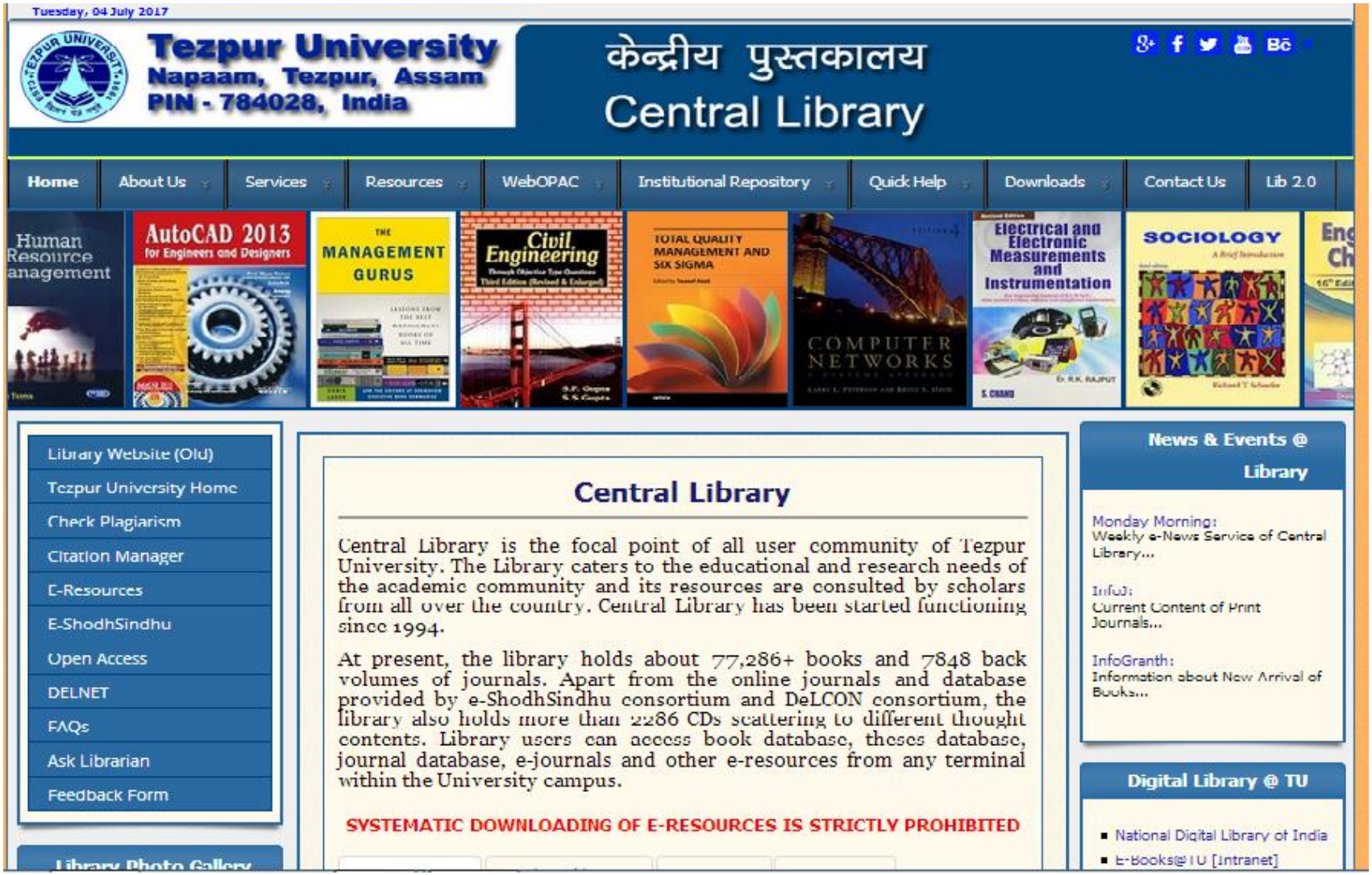
SWAYAM

- The University has identified a number of MOOCS courses from the SWAYAM portal and made provisions for including them in the existing curricula from the next semester onward.
- Accordingly, students and faculty members have been made aware of the facilities under SWAYAM MOOCS.
- 32 courses were proposed under MOOCS. We are still waiting for approval.

SWAYAM PRABHA

- Awareness has been created amongst the students about the Swayam Prabha.
- Students and research scholars have been informed about the programme individually through e-mail and web notification.

NDL Linked with TU Library



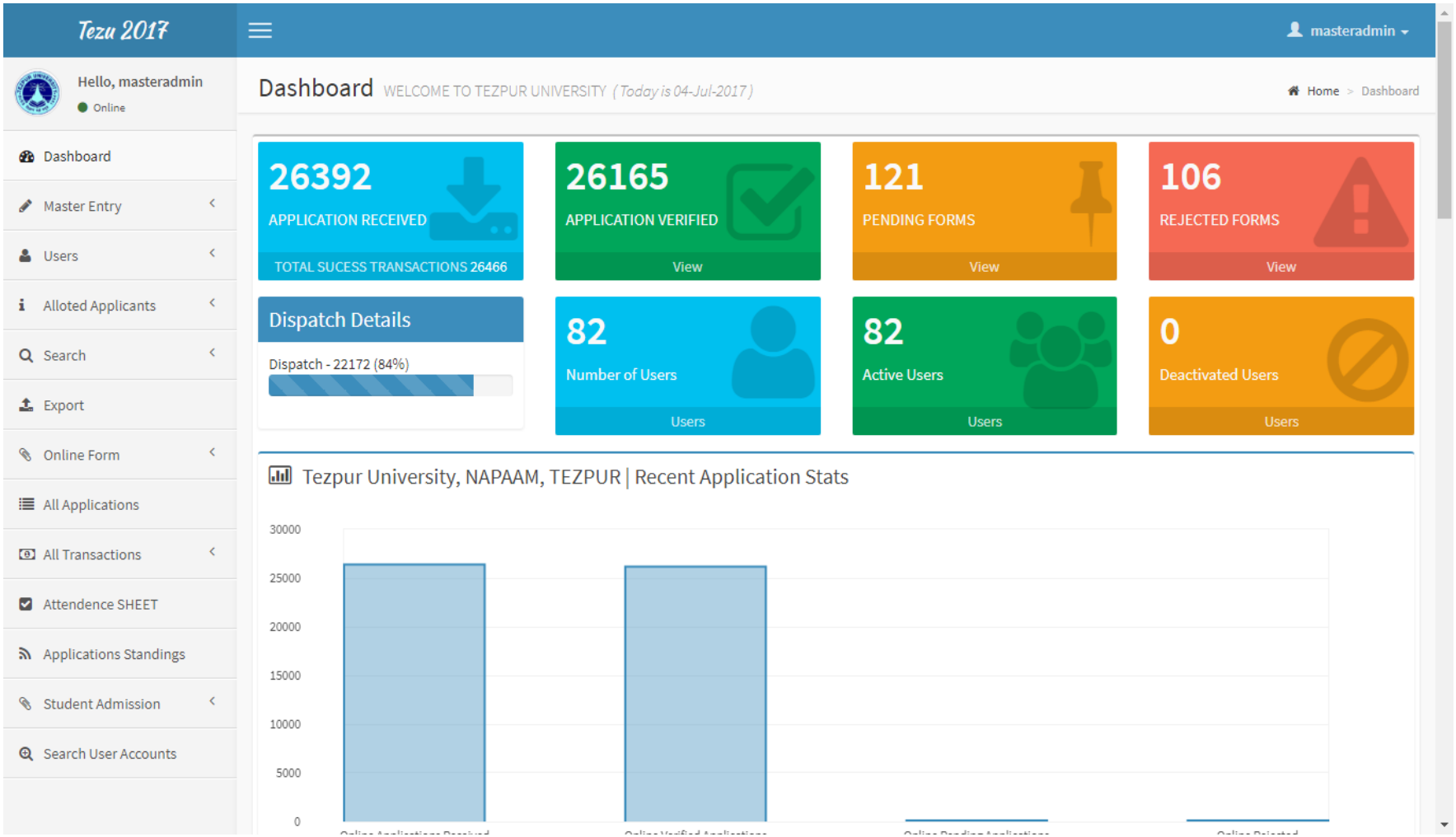
National Digital Library

- Awareness about NDL created
- The University encourages all members to register in the NDL, using the self-registration page.
- A total of 626 users including 331 students, 204 faculty members and 91 other staff of Tezpur University have already registered as users of NDL.
- TU provides access to
  - 9361 e-resources through e-Shodh Sindhu Consortia,
  - 1135 e-resources through DBT e-Library Consortia, and
  - e-resources (122 journals and 2 databases) through Central library's subscription.

National Academic Depository

- Tezpur University has signed an agreement for NAD with the National Securities Depository Limited (NSDL).
- Certificate template of this University has already been created by NSDL in consultation with the university.
- Certificate Data of 2015 have been sent to NSDL for final preparation of e certificates.

TU Entrance Examination and Admission Portal

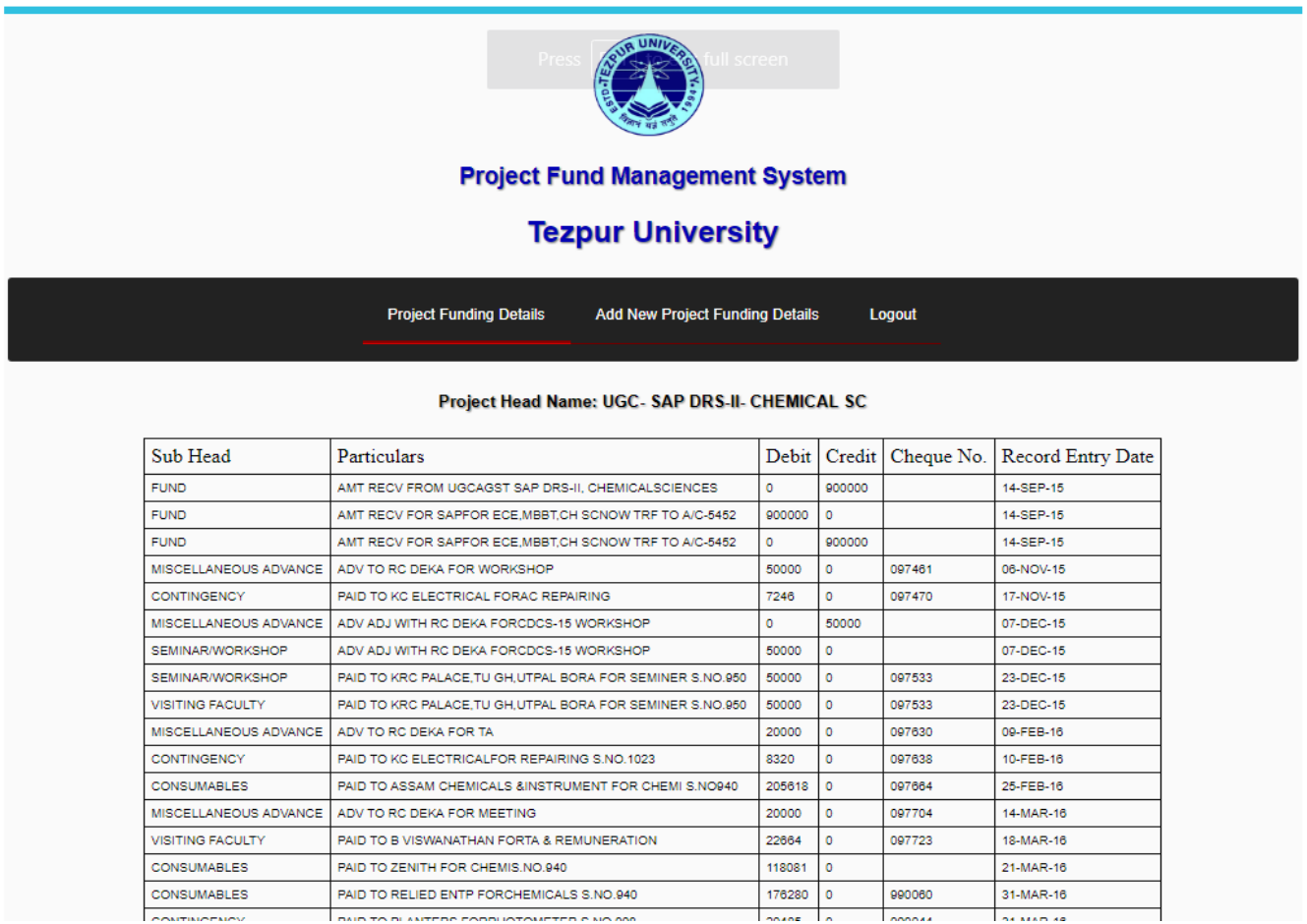


Financial Applications, Finance Section



Research Project Fund Details Monitoring Application, Finance Section

Welcome



Press full screen

Project Fund Management System

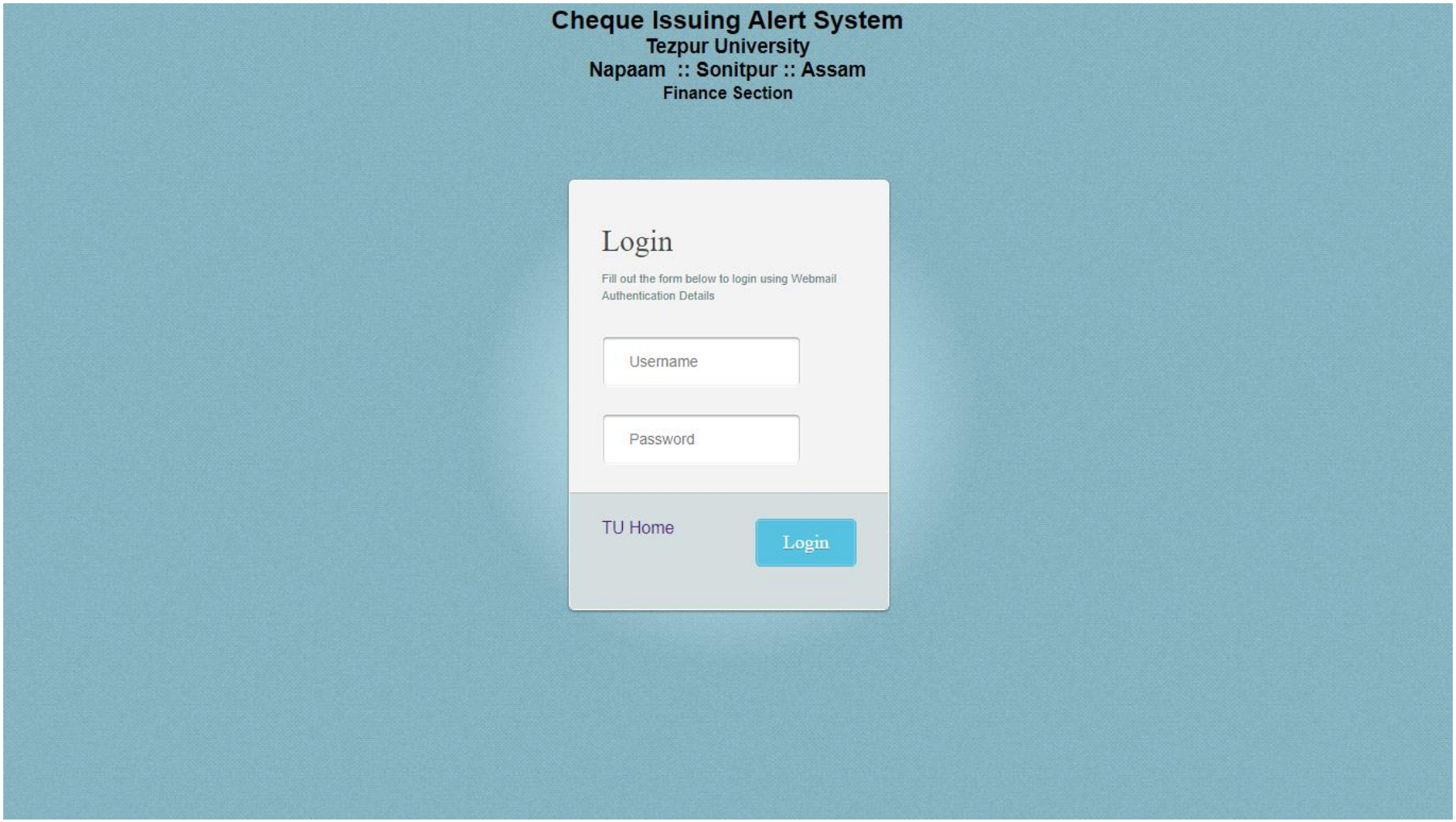
Tezpur University

Project Funding Details | Add New Project Funding Details | Logout

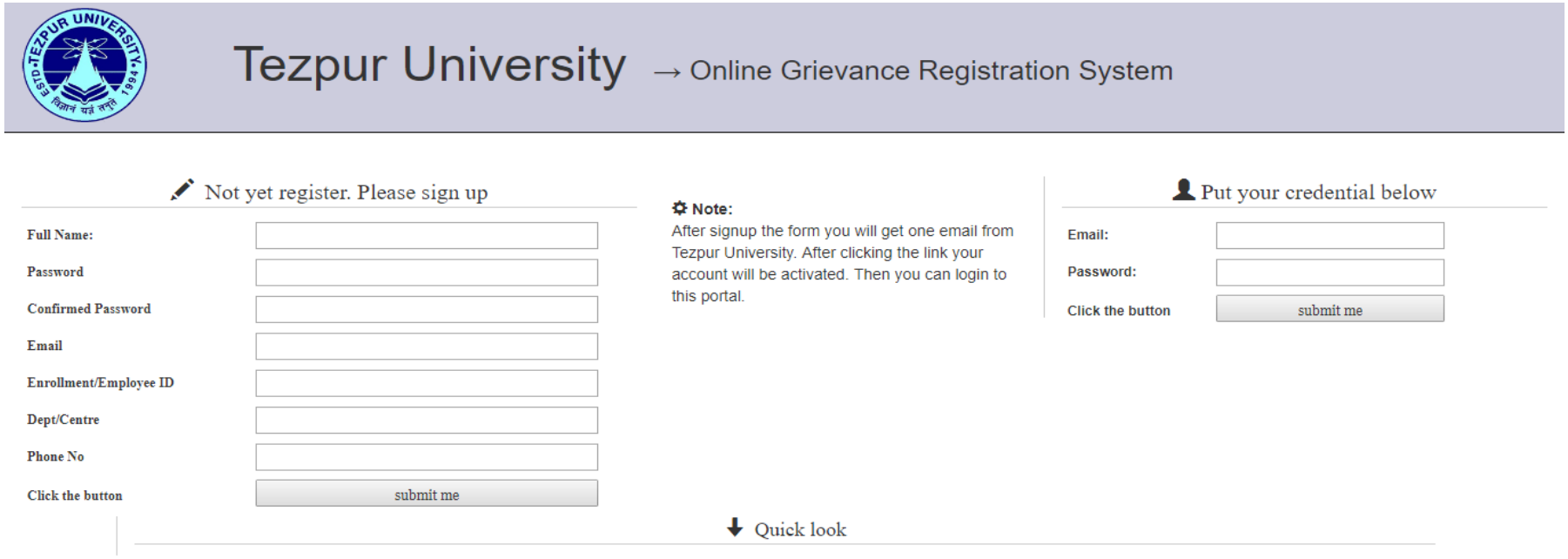
Project Head Name: UGC- SAP DRS-II- CHEMICAL SC

Sub Head	Particulars	Debit	Credit	Cheque No.	Record Entry Date
FUND	AMT RECV FROM UGCAGST SAP DRS-II, CHEMICALSCIENCES	0	900000		14-SEP-15
FUND	AMT RECV FOR SAPFOR ECE,MBBT,CH SCNOW TRF TO A/C-5452	900000	0		14-SEP-15
FUND	AMT RECV FOR SAPFOR ECE,MBBT,CH SCNOW TRF TO A/C-5452	0	900000		14-SEP-15
MISCELLANEOUS ADVANCE	ADV TO RC DEKA FOR WORKSHOP	50000	0	097461	06-NOV-15
CONTINGENCY	PAID TO KC ELECTRICAL FORAC REPAIRING	7246	0	097470	17-NOV-15
MISCELLANEOUS ADVANCE	ADV ADJ WITH RC DEKA FORCDCS-15 WORKSHOP	0	50000		07-DEC-15
SEMINAR/WORKSHOP	ADV ADJ WITH RC DEKA FORCDCS-15 WORKSHOP	50000	0		07-DEC-15
SEMINAR/WORKSHOP	PAID TO KRC PALACE,TU GH,UTPAL BORA FOR SEMINER S.NO.950	50000	0	097533	23-DEC-15
VISITING FACULTY	PAID TO KRC PALACE,TU GH,UTPAL BORA FOR SEMINER S.NO.950	50000	0	097533	23-DEC-15
MISCELLANEOUS ADVANCE	ADV TO RC DEKA FOR TA	20000	0	097630	09-FEB-16
CONTINGENCY	PAID TO KC ELECTRICALFOR REPAIRING S.NO.1023	8320	0	097638	10-FEB-16
CONSUMABLES	PAID TO ASSAM CHEMICALS &INSTRUMENT FOR CHEMI S.NO940	205618	0	097664	25-FEB-16
MISCELLANEOUS ADVANCE	ADV TO RC DEKA FOR MEETING	20000	0	097704	14-MAR-16
VISITING FACULTY	PAID TO B VISWANATHAN FORTA & REMUNERATION	22664	0	097723	18-MAR-16
CONSUMABLES	PAID TO ZENITH FOR CHEMIS.NO.940	118081	0		21-MAR-16
CONSUMABLES	PAID TO RELIED ENTP FORCHEMICALS S.NO.940	176280	0	990060	31-MAR-16

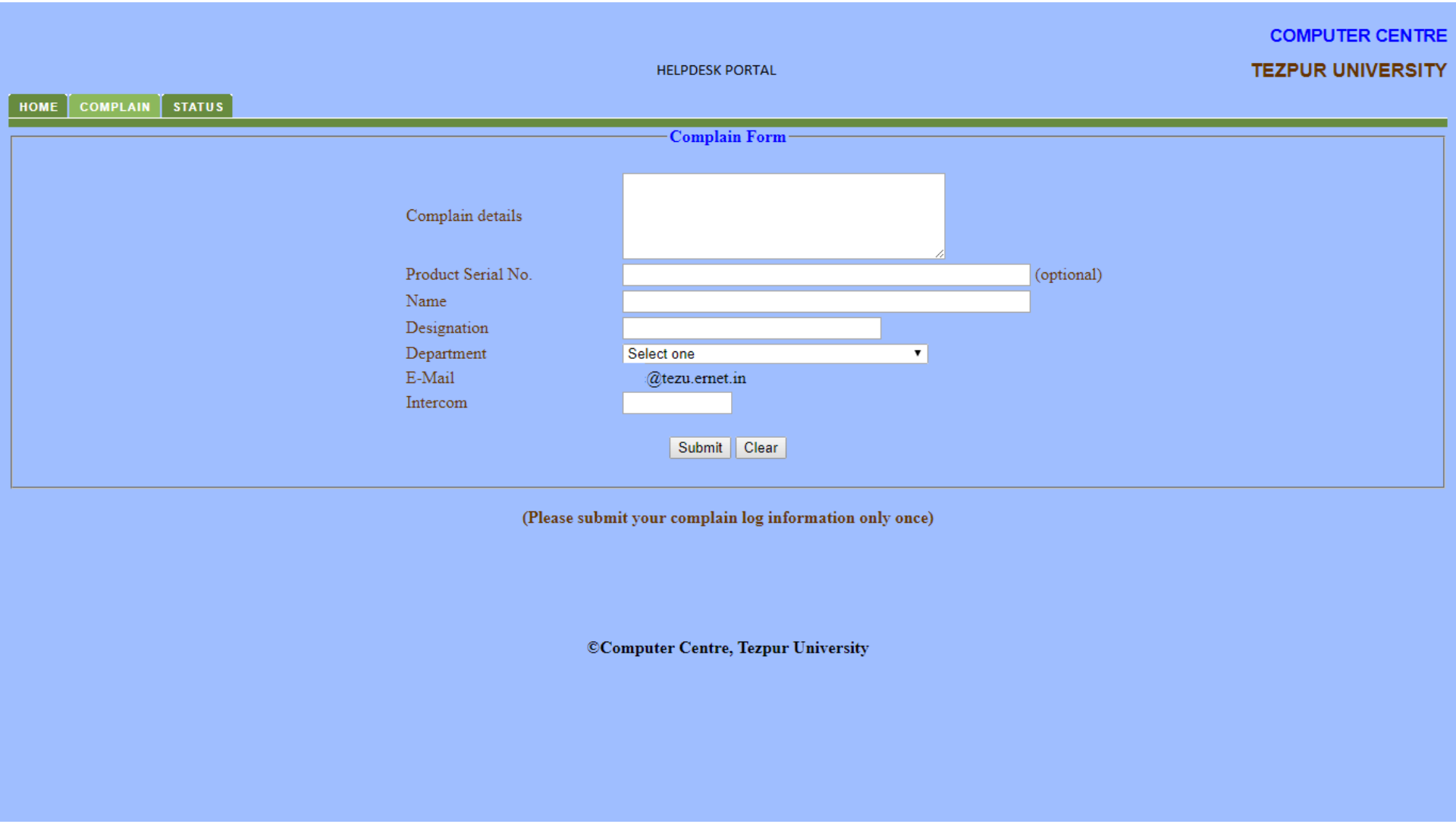
Cheque Issuing Alert System, Finance Section



Online Grievance Registration System, Tezpur University



Helpdesk Portal, Computer Centre



Online Leave Application and Approval System

Online Leave Application and Approval System (OLAAS)

SIGN IN

(Use your webmail credentials)

User name:

Password:

Log in as Administrator

Login

For any queries, kindly call 3208/3204

A Quick Guide to OLAAS

1. **Login**:

Use your Webmail username and password for authentication.

If you are able to successfully login, but get an error message like this, contact System administrator:



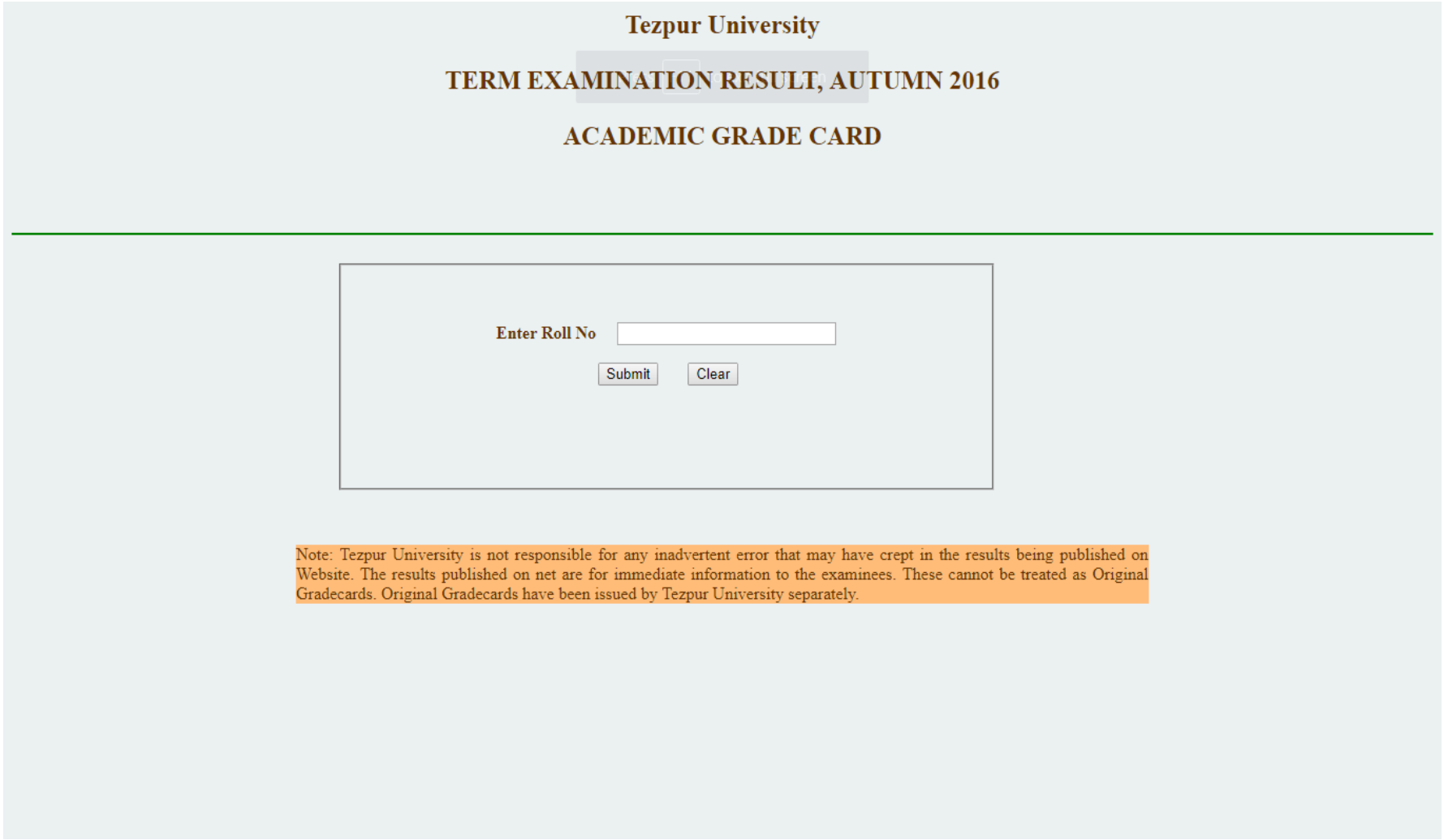
2. **Your Dashboard:**

Your Dashboard is the screen from where you can do all Leave related Tasks. For a general user, it may look like the following:

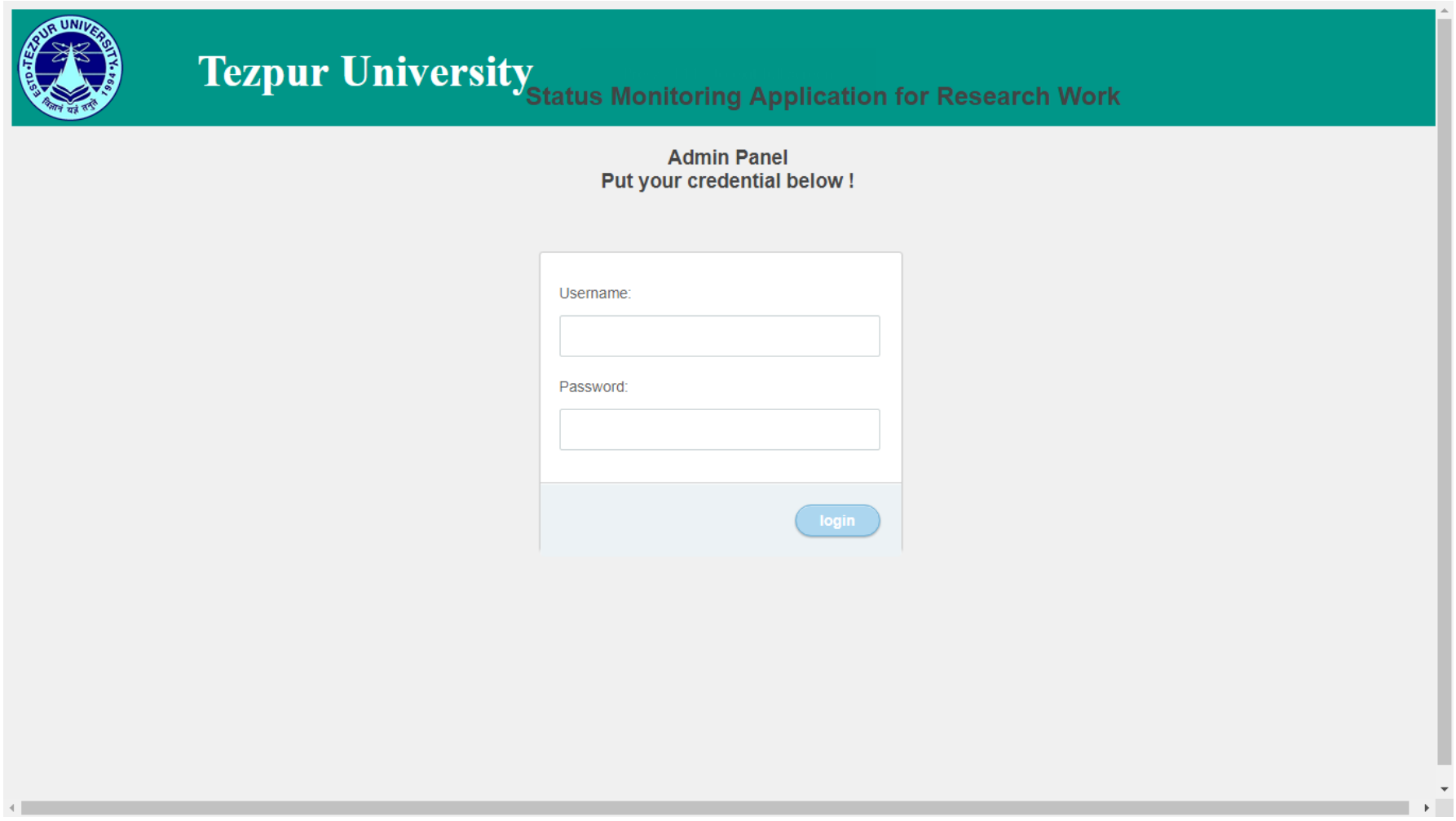


OLAAS version 1.5.2 © Tezpur University

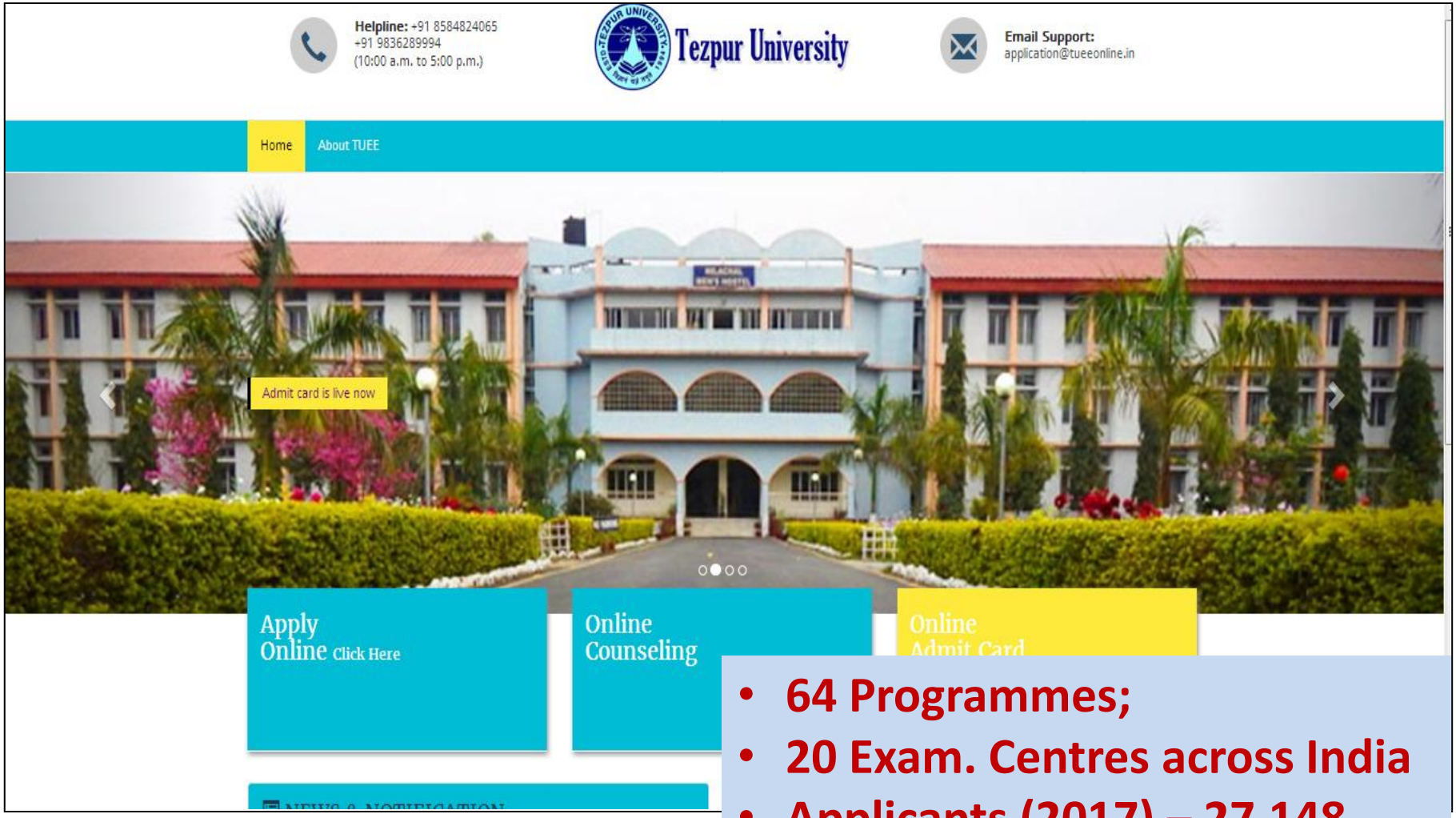
Online Term-End Examination Grade Card Generation System, Academic Section



Status Tracking tool for PhD Thesis Submission, Academic Section



TU Online Admission Portal



- **64 Programmes;**
- **20 Exam. Centres across India**
- **Applicants (2017) – 27,148**

Thank You

Innovative Measures and Reforms in Tripura University

Presented by
ANJAN K. GHOSH
Vice Chancellor
Tripura University

Innovative Measures and Reforms since 2013

- Digital Library with ebooks and journals
- Library Automation
- Wi-Fi in all Buildings and Hostels
- Innovation Club
- Inspiring Teacher's Group
- Upgradation of Central Instrument Centre
- Automation of financial and accounting
- Establishing Faculty Development Centre
- 2 B.Voc programs in Skill Developments (Rubber Technology and Film and Video Production)

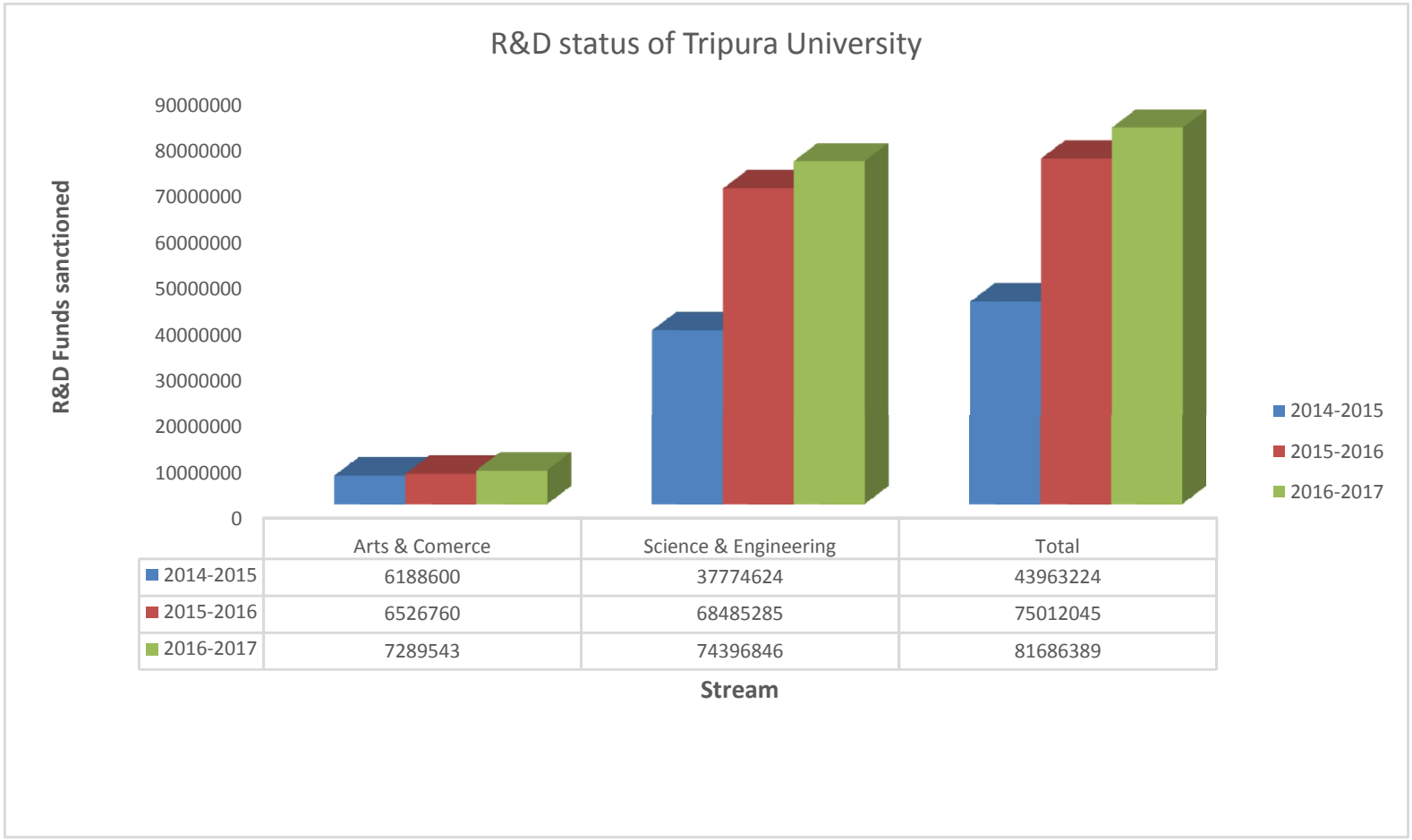
Innovative Measures and Reforms since 2013

- Online Admission Process
- Modernization of PhD rules following UGC
- Encouragement on Attending and Organizing Seminars/Conferences
- Use of NPTEL and MOOC courses
- Development of a few MOOCs
- Use of “Brihaspati” – online course management
- Virtual and e-class rooms
- CBCS

Innovative Measures and Reforms since 2013 (contd.)

- Use of anti-plagiarism software
- PhD in all Depts. and Increase in the number of PhD Scholars
- New Depts.: Engineering (3),Tribal Languages, Indigenous Languages, Linguistics, Library and Information Science, School of Education
- Swachha Bharat Programs
- Adoption of 6 Villages
- Women's Studies and Women's Association
- New Research and Innovation/IPR Policy Adoped

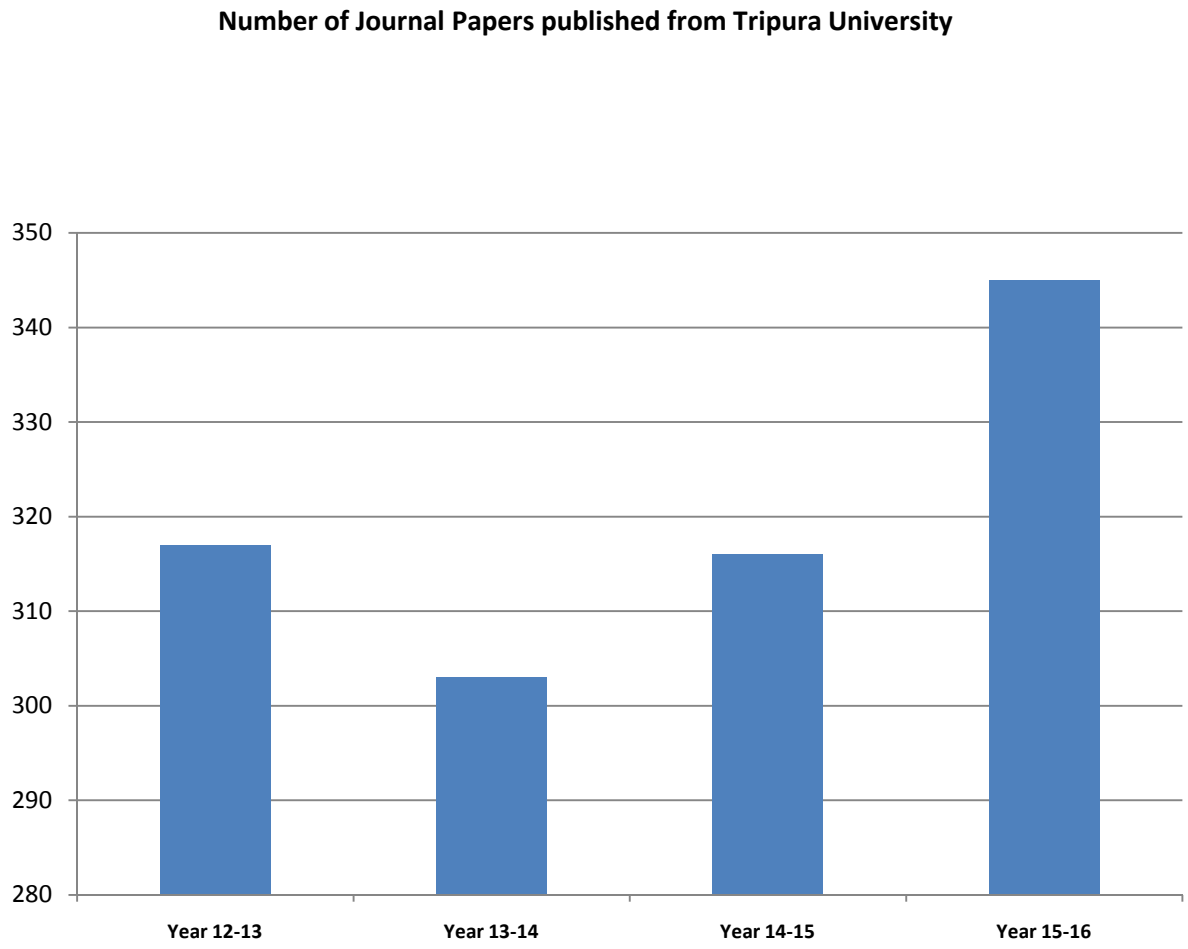
Improvements in Research



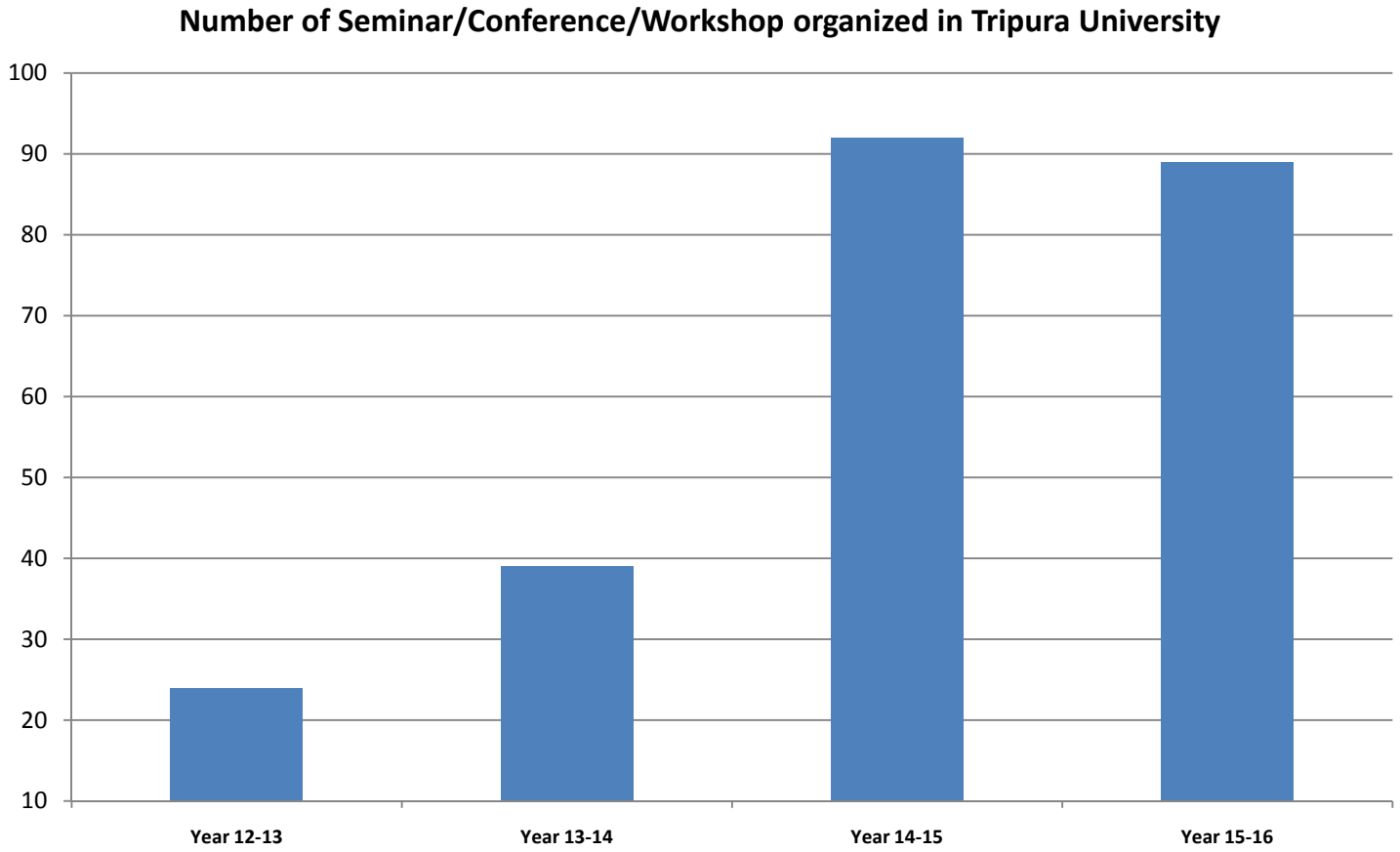
	Arts & Comerce	Science & Engineering	Total
2014-2015	6188600	37774624	43963224
2015-2016	6526760	68485285	75012045
2016-2017	7289543	74396846	81686389

Number of Patents filed = 3

More Publications



Conferences Held in Tripura University



Initiatives on Higher Education

- Adopted as many Initiatives of Visitor, MHRD and UGC as possible
- Difficulties faced:
  - Remoteness
  - Supply and Services
  - Lack of Expertise

Thank you

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Santiniketan

July 2017

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

SWAYAM

- The Academic Council in accordance with UGC's SWAYAM Regulation 2016 is considering the online courses being offered through the SWAYAM platform to decide upon the courses to be permitted for credit transfer.
- The University will ensure that adequate physical facilities like laboratories, computer facilities, library, etc. will be made available for free to the students pursuing online courses offered by SWAYAM.
- The University will designate a course coordinator to guide the students throughout the course and to facilitate/conduct the Lab/practical sessions/examinations
- The University is planning to offer MOOCs in Rabindra Sangit soon.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

SWAYAM Prabha

- The University has provided large screen TV sets in every hostel and designated classrooms to be used by students for watching SWAYAM Prabha DTH channels when it is launched.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

National Digital Library

- Visva-Bharati has put 29689 old and rare books in its collection on NDL
- Rapidly growing user base at Visva-Bharati with over 1000 individual enrolments till date in NDL.

E-Shodh Sindhu

- 1,15,837 hits from Visva-Bharati via https://www.inflibnet.ac.in/ess/eres.php?memID=100

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

National Academic Depository

- NAD Joining Form with NSDL signed in December 2016
- The list of courses and sample certificate data provided to NSDL for on-boarding.
- Visva-Bharati has opted for Certificate Image model.
- Approximately 2000 certificates are issued every year.
- Legacy certificates of last 4 years are ready for verification.
- Digital signature certificate is being obtained.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Campus Connectivity

- 1Gbps NKN PoP functioning since February 2011 connecting 65 buildings.
- Work on passive networking for Wi-Fi-enabled campus commenced in January 2017
  - *140 buildings are to be connected.*
  - *12.5 km optical fibre has been laid so far. 55 kms remain.*
  - *UTP cabling done in 109 buildings*
  - *Sought MHRD's approval to procure switches, security equipment and additional passive components from NICSI to complete the project since the existing LAN is more than 10 years old and might collapse anytime. The same was agreed upon.*

- Purchase Order for campus Wi-Fi placed on RailTel on 27 February 2017
  - *Site Survey done in May 2017*
  - *List of access points (427) to be deployed across the campus approved June 2017*
  - *Work expected to commence soon*

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Digital Content Creation

- Digitisation of the Tagore Archives and Library comprising manuscripts, life time print editions, paintings, still photographs, audio and video recordings including
  - *Over 40,000 pages of manuscripts*
  - *1601 paintings by Rabindranath*
  - *10,000 photographs*
  - *Old cine films including documentaries and news clips featuring Tagore*
  - *Over 3500 Tagore songs sung by noted singers of yesteryears.*
- The Bichitra Tagore Online Variorum Project (http://bichitra.jdvu.ac.in) funded by the Ministry of Culture at Jadavpur University is based on the aforementioned resources.
- Over 15,000 original paintings and art objects at the Kala-Bhavana Museum have been digitised.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Vittiya Saksharta Abhiyan (VISAKA)

- Students were asked to enrol as volunteers to educate their family members and people in their immediate surroundings and motivate them for digital transactions.
- In-house training sessions were organised for student volunteers with assistance from Public Sector banks.
- Visva-Bharati was amongst the top ten institutions nationwide with 510 students enrolling themselves as volunteers.

E-Procurement: CPPP & GeM

- The University is taking necessary steps to join the Central Public Procurement Portal soon.
- The University is also taking necessary steps to commence procuring from GeM

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Measures for Promoting Research

- Research start up grant for newly-joined Assistant Professors
- Numerous research projects including UGC DST, ICAR, UGC-UKIERI
- MoUs signed with global universities from China, Japan, Spain, Mauritius, Australia and Switzerland
- Strong emphasis on interdisciplinary research

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Involving with the Community for Improving Livelihoods

- 50 villages adopted by the University in keeping with Tagore's ideals
- Community college programme initiated
- B.Voc programmes empowering nearby rural population in various professions
- Self-help groups have been formed
- Incubation and innovation centres set up to make the University a hub for awareness in agriculture and social work.
- Generation of educational content for local community in partnership with local Doordarshan Kendra and All India Radio.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Swacch Bharat Abhiyan

- Regular mobilisation of students, faculty to participate in the Swacch Bharat Abhiyan
- Plastic-free campus
- Installation of solar panels for clean energy
- Coordination with state administration to reduce vehicular pollution
- Green campus with ring roads and cycling tracks

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Unnat Bharat Abhiyan

- Incorporation of technology in weaving, printing and leather craft in batik, a prosperous small scale enterprise in the district.

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Planning for the Future

- Upcoming Bangladesh Bhavan
- Cheena-Bhavana, Centre for Sino-Indian Culture celebrates 90 years
- Translation of Tagore's works in various Indian and foreign languages
- Creation of Sankardeva Chair in Assamese and Vaishnava Culture
- Thrust on extensive teaching and research in the East Asian languages

DIGITAL & OTHER INITIATIVES/REFORMS AT VISVA-BHARATI

Planning for the Future

- Immediate increase in infrastructural facility including hostels, laboratories and state-of-the-art studios for artists and performers
- Thrust towards studies in agriculture with improved laboratories, creation of nine new departments, collaboration with national research institutions
- Marketing of dairy and poultry products

University of Delhi

Digital Initiatives

Contents

- Digital Administrative Processes
- Digital Research Initiatives
- Digital Teaching Initiatives
- Digital Initiatives of the Delhi University Library System
- Digital Initiatives at the College and Department Level

Digital Administrative Processes

Online Admission

- The entire admission process of the University across all colleges and departments for admission to its UG,PG, M.Phil. and Ph.D. programmes was made completely online from the academic session 2016-17.

- Entrance tests for Masters/M.Phil./Ph.D. programmes are being held in six different cities, i.e. Bengauluru, Delhi, Jammu, Kolkata, Nagpur and Varanasi and in eighteen cities for UG Programmes, thereby enabling the University to reach deserving students in different parts of the country.

Online Fee Collection

The collection of fees for all programmes is now undertaken online using an online software fee module and database which has been created by the University for the students of its departments, centres and constituent colleges.

The fee that is collected online is dispersed to each unit electronically using the database.

Online Advanced Degrees

- The Examination Wing has developed an Online Portal on the University's Website for receiving applications from students for the issue of degrees prior to the Annual Convocation (as per the provision contained in Regulation 16 (i) clause 2 related to Convocation contained in Volume –II 1989 approved by the Executive Council).

- The portal was developed to expedite the process of issue of degrees in advance of the Annual Convocation to the successful candidates who are due to leave the country either to pursue higher studies or to take up residence abroad.

- Under the procedure, the students are required to fill up the online form available on the portal and upload the required documents. A nominal non-refundable fee is to be deposited online at the payment gateway.

- After completion of the online process, the students are issued an acknowledgement receipt.

Online Student Grievance Redressal System

- The University of Delhi has taken an important initiative in the creation of a Student Grievance Redressal System (SGRS) for undergraduate and postgraduate students.

- The system has been activated on the webpage of departments and colleges.

- The students can register / login and type their grievance online. There is also an optional box to suggest a solution to their problems. After the students complete the grievance form, they can upload any documents in support of their case.

- On completion of the process, the grievance with documents is automatically sent to the Head of the concerned department / college Principal for necessary action and the students get an acknowledgement form containing a reference number.

E-Procurement

The University of Delhi has implemented e-procurement with effect from 1.4.2016 for the publication and processing of tenders for all procurement of Rs.2.00 lakhs and above

Digital Research Initiatives

DU e-Journals

The Delhi University Journal of Undergraduate Research and Innovation(ISSN 2395-2334), an online bi-annual peer reviewed research journal (first of its kind in India.)

The Delhi University Journal of the Humanities and the Social Sciences(ISSN 2348-4357), an on-line annual peer-reviewed research journal.

DU-Vidha: The Delhi University Journal of Creative Writing(ISSN 2347-9094) published twice a year.

Digital Research Initiatives

University Research Grants: Online Application, Screening and Progress: The process for obtaining University Research Grants for Department faculty and for college teachers (Innovation Projects) has been made completely online including application process, screening by experts and six-monthly progress reports

Research Profiles of Faculty members: A repository of the profiles of faculty members with their publications is available on the University website under the academics tab.

Digital Teaching Initiatives

Use of virtual classroom software, web-casting and video-conferencing: The University is actively using these for on-line teaching and learning. It is also setting up a repository of recorded on-line lectures, and provides access to similar resources to students via the NKN, which connects all the institutions of India together.

Access to online teaching and learning resources through Massive Open Online Courses (MOOCs): The University also provides access to online teaching and learning resources through Massive Open Online Courses.

The University has also developed 1810 e-lessons and 56 video lectures through Institute of Life Long Learning for UG programmes. Further, the university has developed 363 lessons under the aegis of MHRD project "National Mission on Education through ICT" (NME-ICT) as on 1.07.2015.

Subscription to e-journals and resources: The University subscribes to many e-journals and resources, which are accessible through the network.

Digital Initiatives
of the
Delhi University Library System

e-ShodhSindhu **:** DULS, is an active member of e-SodhSindhu, a UGC Consortium, formerly known as UGC-INFONET Digital Library Consortia of INFLIBNET. It is in one of the members from first phase 50 university libraries. DULS has access to 25 online databases through this consortium. More then 35,000 e-journals and other academic materials are accessible to its users through online databases - more than 200 in number- either subscribed by the University or made available through e-SodhSindhu, and through open access e-resources.

J-Gate@e-Shodh Sindhu: This is a resource-sharing platform to meet the information requirements of the scholars across the country. DULS is one of the 30 designated Document Delivery Centers of J-Gate.

Accessible resources for Visually Impaired**:** The Braille Library has developed ample ICT enabled infrastructure to help the visually impaired user community of the entire University. It consists of 03 sound proof Audio Book recording studios, in house developed online database of Audio Books, Braille Box V4 embosser, 20 screen reader enabled computer nodes, trained visually impaired staff, etc.

Internet Access Facility: All major libraries of the system have created a well-established facility to help the users in accessing online E-Resources.

Digital Initiatives
of the
Delhi University Library System

Digital Collection of Ph.D. theses: The Library maintains digital collection of 8,950 theses submitted to the University and 14,386 out of copyright books. Presently DULS also has about 1,600 theses in digital form on CD/DVDs, received during 2012-16.

***Electronic Databases*:** All the subscription-based e-resources accessible to the University are categorized and alphabetically listed on the library website with brief details and proper URL link of each resource.

Open Access e-resources: Such resources of importance are alphabetically listed on the library website with brief details and proper URL link of each resource.

Subject Portal: There is a subject portal that guides the users for resources on a particular subject.

Federated Search Tools: To facilitate the users the library provides federated search engine like KNIMBUS, and J-Gate to search all/ selected databases from a single search window. The library also participates in Resource Sharing Networks/ Consortia (like INFLIBNET):

Digital Initiatives
at the
College and Department Level

- **Wi-Fi- Enabled**: Most departments and college campuses are fully Wi-Fi enabled. The University has provided 100 MBPS Internet connectivity through OFC.

- **Cashless campuses**: Many colleges have become cashless campuses.

- **Dedicated Website**: Most departments and colleges have a dedicated website with digital payment and online application processes.

- **Cashless Financial Transactions**:

1. All colleges are moving towards online banking and cashless financial transactions.
2. All payments are made through RTGS/NEFT.
3. Scholarships and award money is transferred to student accounts through Direct Benefit Transfer
4. E-payments are offered in most facilities of the colleges.
5. Most colleges are conducting trainings and workshops at various levels on cashless transactions and use of digital facilities for making the staff and students digitally ready

- **Automated Libraries**: Most of the college libraries are automated, RFID-enabled and subscribe to INFLBNET databases along with participating in the UGC-INFONET Digital Library consortium.

Digital Initiatives
at the
College and Department Level

- **Enterprise Resource Planning Software** : Many colleges have deployed Enterprise Resource Planning Software to offer digital services to stakeholders.
- **Digitization of Academic Records**: The following are digitized in most colleges- Internal Assessment, Time Table, Examination result, Attendance, Seating arrangement during examinations.
- **Access to Online Learning Platforms**: Students of most departments and colleges have access to online learning platforms.
- **Facebook Pages**: Most colleges have their Facebook pages for constant interaction with students and dissemination of information to faculty.
- **Mobile App**: Many colleges have their Mobile College App for facilitating various digital services.
- **E-learning modules on website**: Some colleges have e-learning modules uploaded on their website as support material for various courses running in the college.

Digital Initiatives
at the
College and Department Level

- **Technology Enabled Classrooms**: Interactive smart boards, fixed and portable projectors have been provided in most colleges for technology-enabled classrooms.

- **Online File Tracking System**: Many colleges are in the process of launching Online File Tracking System.

- **Online Information**: Most departments provide information about their admissions, results and faculty profiles online on respective websites.

- **Online Staff Records**: Many colleges maintain their Service Book and leave records online.

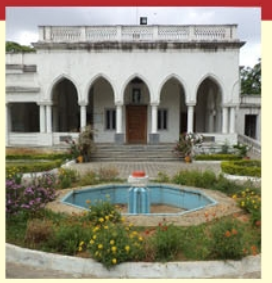
- **Internet Kiosks**: Internet enabled kiosks have been established at many campuses to guide students and visitors.

- **Online Application Form for Teaching/Non-teaching Staff**: Most colleges have made online application form for Teaching and Non-teaching staff.

हैदराबाद विश्वविद्यालय University of Hyderabad

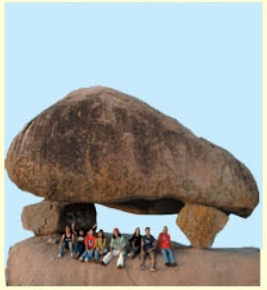












Presentation on

Digital Initiatives @Univ of Hyd

Prof. Appa Rao Podile, Vice Chancellor



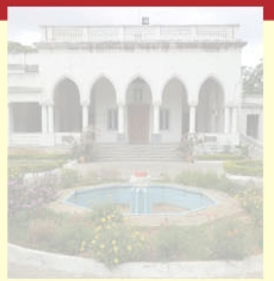


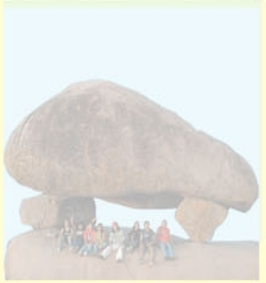


www.uohyd.ac.in

E-Governance

- Launched on 27th June 2017 the Student Life Cycle Management Module
- Followed by Employee Life Cycle Management, Assets Management, Finance Management etc.



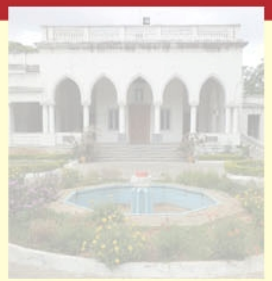
Financial

After Demonetization:

- Financial transactions are done through RTGS
- Swiping Machine installed - no physical cash

Before Demonetization:

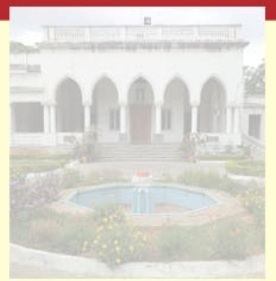
- Through Banks
- Online transactions
- Swipe machines

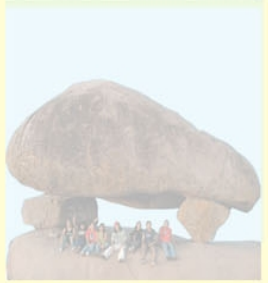





Academic - I

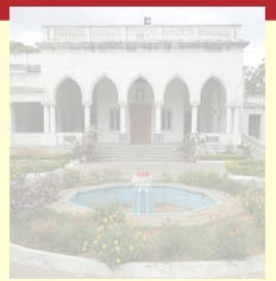
- Online Application
- Entrance Examinations
- Entrance Results Processing
- Admissions
- Semester Registration

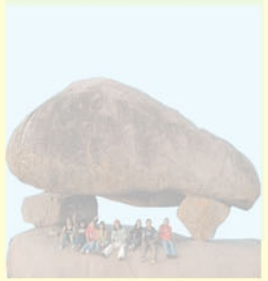


Academic - II

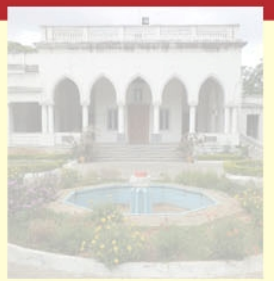
- Student Information
- Semester Examinations
- Semester Results Reports
- Convocation
- Smart Degree
- Finger Print Capture

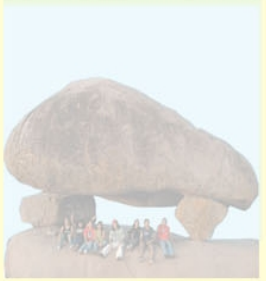


Ticketing System for Hostels

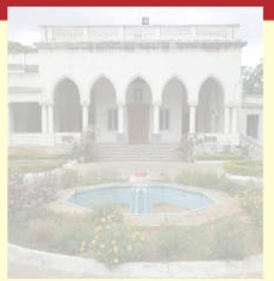
- Hostel boarders submit a ticket online
- Automatically forwarded to the concerned service department.
- The department concerned will address it at the earliest possible.
- Both boarders and representatives of the department concerned will be able to reply and update the status of the ticket.

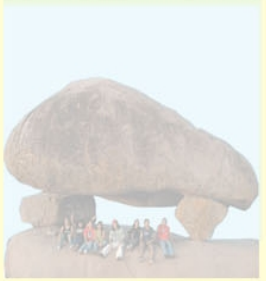


Research Projects Grants

- First to implement e-governance in the accounting and management of research projects, during the year 2012-13.
- Procured and implemented custom-designed software solution known as SFACTS
- Using it for efficient management of research projects for more than five years



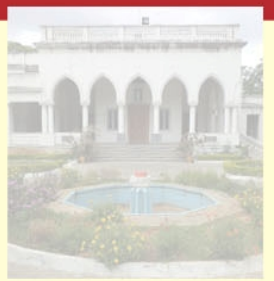
Other Initiatives

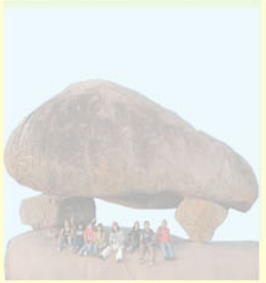
Online Recruitment process

University e-newsletter (UoH Herald - uohherald.commuoh.in)

Project Management system (PMS)

- The UGC Networking Resource Centre
- The academic management software was designed and implemented between 2015-16 at School of Chemistry.



हैदराबाद विश्वविद्यालय University of Hyderabad

Facebook	https://www.facebook.com/uohyd
Twitter	https://twitter.com/HydUniv
UoH Herald (newsletter)	https://uohherald.commuoh.in

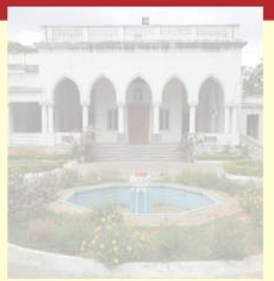






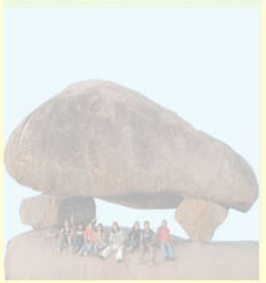


Thank you









www.uohyd.ac.in

Digital Initiatives at IIM Udaipur

IIMU
भारतीय प्रबंधन संस्थान उदयपुर
Indian Institute of Management Udaipur

IIM Udaipur

Gist of Digital Initiatives at IIM Udaipur

- Digital Library
- Implementation of Moodle LMS
- Implementation of ERP
- National Academic Depository

About Moodle

Moodle is an integrated and personalized learning platform which provides digital ecosystem for academic activities

Benefits of Moodle:

- Open Source
- Fully Customizable
- Scalable
- Robust, Secure and Private
- Option of server based as well as web based

Moodle is currently being used by 90 million users worldwide

Source: https://mood

mplementing Moodle

Moodle is an open source, completely free software provided through Moodle Project

Moodle is fully customizable and modifiable. User organizations can add tools and plugins to the software as per requirements

Organizations can also take assistance from various Moodle Partner service companies which specialize in customizing the software as per need of the user organizations

Moodle consistently evolves through support of a strong community and plugins shared by users therein



Source: https://mood

Features of Moodle

Communication platform

Course wise repository creation

Disseminating resources to students

Discussion Forums

Quizzing

Assignment submission and integrated plagiarism detection software

Online surveys and in-class polls

Evaluation record maintenance

Benefits of using Moodle

Structured repository of resource material

Real time and objective evaluation of quizzes

Customized report generation to monitor progress

Convenient access to instructors and students

Structured trail of communication with students

Effective plagiarism control

Systematic maintenance of evaluation records

Saving of paper

Adoption Assistance to Other Institutions

- Sensitizing about utility of Moodle as course management platform
- Assistance in connecting with a reliable Moodle Partner Service Companies
- Live demonstration of Moodle in use for modules like quizzing, assignment submission, etc.

Future Roadmap

Not all the functionalities available in Moodle are currently being used. Following features may be brought into implementation in near future:

- Online Surveys
- In-class polls
- Wiki (using online collaborative platform for group activities)

www.iimu.ac.in

THANK YOU

IIMU
IIM Udaipur

Digital Initiatives
by
IIM Kashipur

Presentation at MHRD

July 9, 2017

Digital interventions

Online Research Seminar Series via “Go-to-Meeting” platform

Online Certification Courses

E-Books in PGP courses

Online Placement Interviews

Online Library Resources

Digital payment system, online IT Help Desk and Leave Management System

Online Research Seminar Series via "GotoMeeting" platform

For Executive Fellow Program Participants.

Presentation and Participation from Remote Locations

Upto 100 participants can attend

Cost: USD 588 per year

Proceedings can be recorded on the platform and easily accessible for circulation.

Online Research Seminar Series via "GotoMeeting" platform: Features

- Students can login via a 9 digit access code
- From any of the devices including Laptop, Desktop or even a Smart Phone
- All participants can chat, speak and even present their screen for discussion

Online Research Seminar Series via "GotoMeeting" platform: Benefits to the Students

- Students share their progress report from home
- Executive Fellow Programme Students have benefitted from the presentations by other students, particularly their seniors
- Helped in Collaborative research among students
- Participation by faculty from other IIMs and Industry Experts, has provided them valuable inputs
- Interaction of students with their faculty has helped them to clear many of their doubts

Online Certificate Courses

- IIM Kashipur is offering online long-term MDP /Certificate Courses in the platform provided by Telentedge on revenue sharing basis.
- Each program involves 60 hours of interaction.
- Delivered from IIM Kashipur campus.
- Participants can interact with each other and with the faculty
- Currently four such programs are running and two more are going to start soon.
- Attended by industry executives interested to add to knowledge and skills.
- Programs help IIM Kashipur to strengthen its industry linkages

Other Initiatives

- Placement Interviews with Video Conferencing
- Online Text Books
- Online Library Resources (Can be accessed remotely)
- Online Leave Management
- Online Payment System

Future Roadmap

- More intensive use of “GotoMeeting” for:
  - Industry Interactions
  - Online Training Programs
- Collaboration with other IIMs for Joint online elective courses

Adoption by other Institutes

IIM Kashipur can share its experience and learnings

We can also help in training for adoption of these tool

Collaborate on use of upgraded versions, so that multiple institutes can use together.

Technology Assisted Examination System



Prof. Dr. P.K. Sudhir

Controller of Examinations

Kerala University of Health Sciences

Brief History

Kerala University of Health Science Act 2010 was enacted in the State assembly.

189 health science colleges under existing five universities were transferred to KUHS from 2010-11 academic year onwards.

Brief History

Currently KUHS has 282 affiliated health science colleges under seven faculty

- faculty of allied health sciences,
- faculty of ayurveda & siddha ,
- faculty of dental science,
- faculty of homoeopathy,
- faculty of medicine,
- faculty of nursing
- faculty of pharmacy.

Purpose

Ensuring proper and systematic instruction, teaching, training and research exclusively in all health science educational streams in the state of Kerala

- **A Reliable and Valid Examination System is the only methodology which indicates whether the Educational Objectives are achieved**

A successful evaluation generates outcomes that are

- **Valid**
- **reliable**
- **indicate directions and action for improvement.**

Currently KUHS has offering ‘129’ courses in 282 Affiliated Colleges

An average enrollment of students of all these courses is > 20,000 per year

KUHS is conducting an average of 20,000 theory & 10,000 practical examinations in a year on a regular & supplementary mode

KUHS Automated Examination System

- Publication of a tentative theory examination calendar in the beginning of the academic year
- Preparation of question paper bank by national level experts and which is scrutinized by state level experts
- Choice less question papers

- **Nodal center for each theory examination and appointment of a nodal officer**
- **Use of 52/32 pages barcoded theory answer books as the case may be**
- **Secure delivery of online transmission of question paper 30 minutes prior to the conduct of the examination**

- No candidates are permitted in the exam hall after online QP transmissio
- Correction/modification/replacement o questions (optional) within 15 minutes from the start of examination.
- CCTV surveillance and mobile jammer in the theory examination hall

- Digital recording of theory examination proceedings shall be sent to the university along with the answer books
- Online entry of practical marks from the examination centers
- Online mark entry from the valuation camps

- **Double valuation for all UG courses & an option for third valuation if the first and second valuation marks vary more than 15% of total marks.**
- **Multiple Valuation for all PG Courses**

- **Digitalized result processing**

  (various parameters required for result processing arrived from various locations are verified and matched against secret keys)

- **Public web portal available for the candidates for viewing the results**

KUHS Examination System In Brief ...

- Examination Registration is online
- Eligibility check is automated
- Admit card issue is online
- QP transmission is online
- QP correction/replacement transmission is online

- **Theory Attendance registration is online**
- **Practical marks entry is online**
- **Theory valuation marks entry is online**
- **Result processing is online**

.....

- **Result documents preparation is automated**
- **Verification of result is online**
- **Publication of result is online**
- **Identification of answer books for re-totalling or other cases are done online**

Advantages of Automation

- Examination system - No-loss no-profit basis
- Conduct of examinations with in the course period itself
- Timely publication of results avoiding course lag

Achievements

- University could establish a reputed examination system
- Timely conduct of examination and timely publication of results
- Awarded 31,635 degrees and diplomas in six convocations.
- University could establish a brand value for KUHS degree

Future Plans

- Digital / Online theory evaluation
- Biometric attendance in Theory / Practical Examination Centres
- Online CCTV Surveillance from the University Headquarters

Thank You



GRAMODAYA DIGITAL INITIATIVES FOR QUALITY EDUCATION

By: Prof. N. C. Gautam, Vice-Chancellor

Grade "A" accredited by NAAC



'विश्वं ग्रामे प्रतिष्ठितम्'

The village is the universe in miniature.

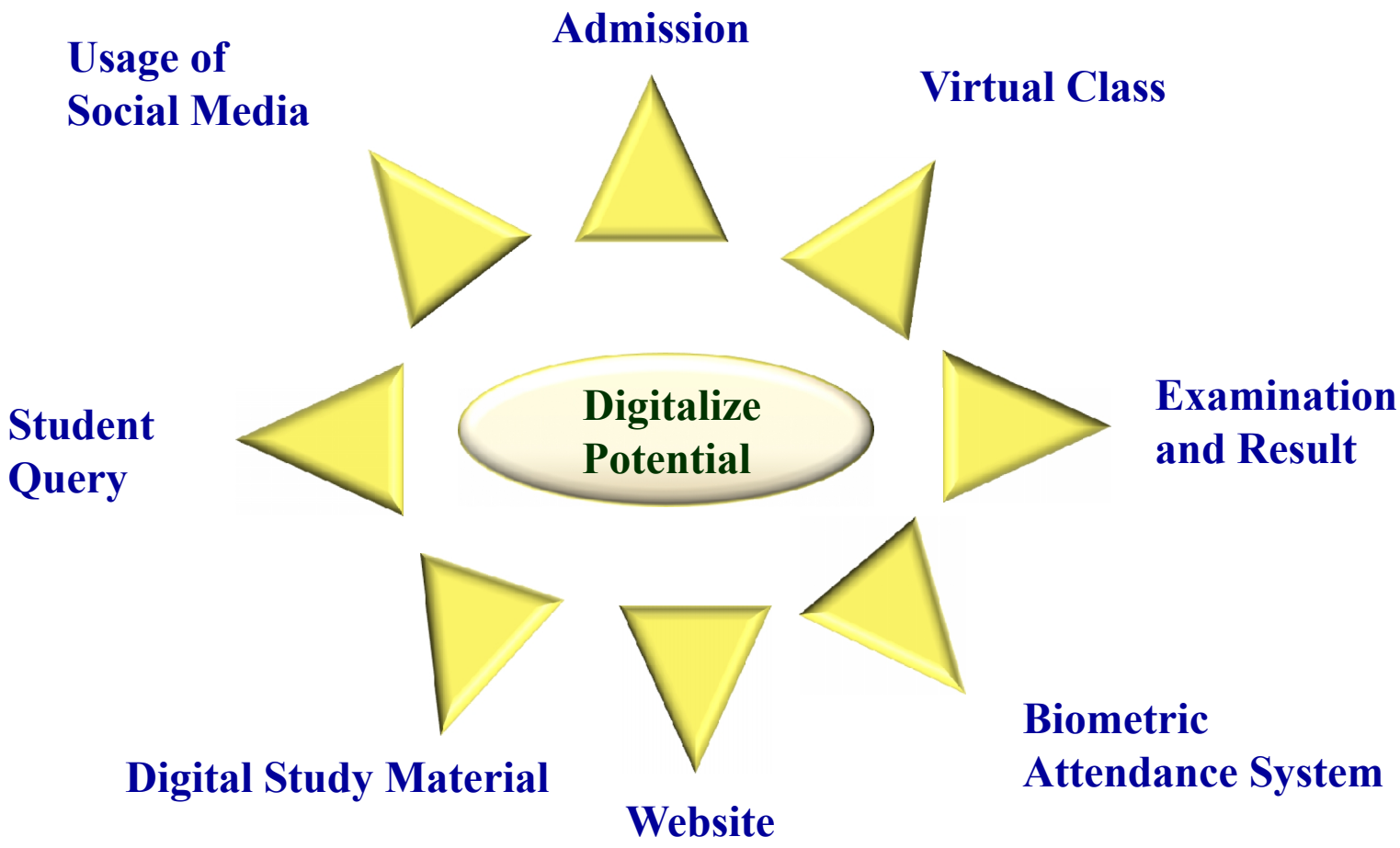
MAHATMA GANDHI CHITRAKOOT GRAMODAYA VISHWAVIDYALAYA, CHITRAKOOT

(First Formal Rural University of Our Country)

DIGITAL INITIATIVES OF GRAMODAYA

- LIBRARY DIGITIZATION
- ONLINE ADDMISSION PROCESS
- DECLARATION OF RESULT IN DIGITAL MODE
- CAMPUS DIGITAL DATA
- THUMB IMPRESSION ATTENDANCE SYSTEM
- MOVEMENT OF FILE THROUGH NETWORKING
- STUDENT ASSIGNMENT AND INTERACTION
- MONITERING SECURITY OF CAMPUS THROUGH CCTV
- AUTO GENERATED ONLINE SYSTEM FOR REDRESSAL OF STUDENTS PROBLEM

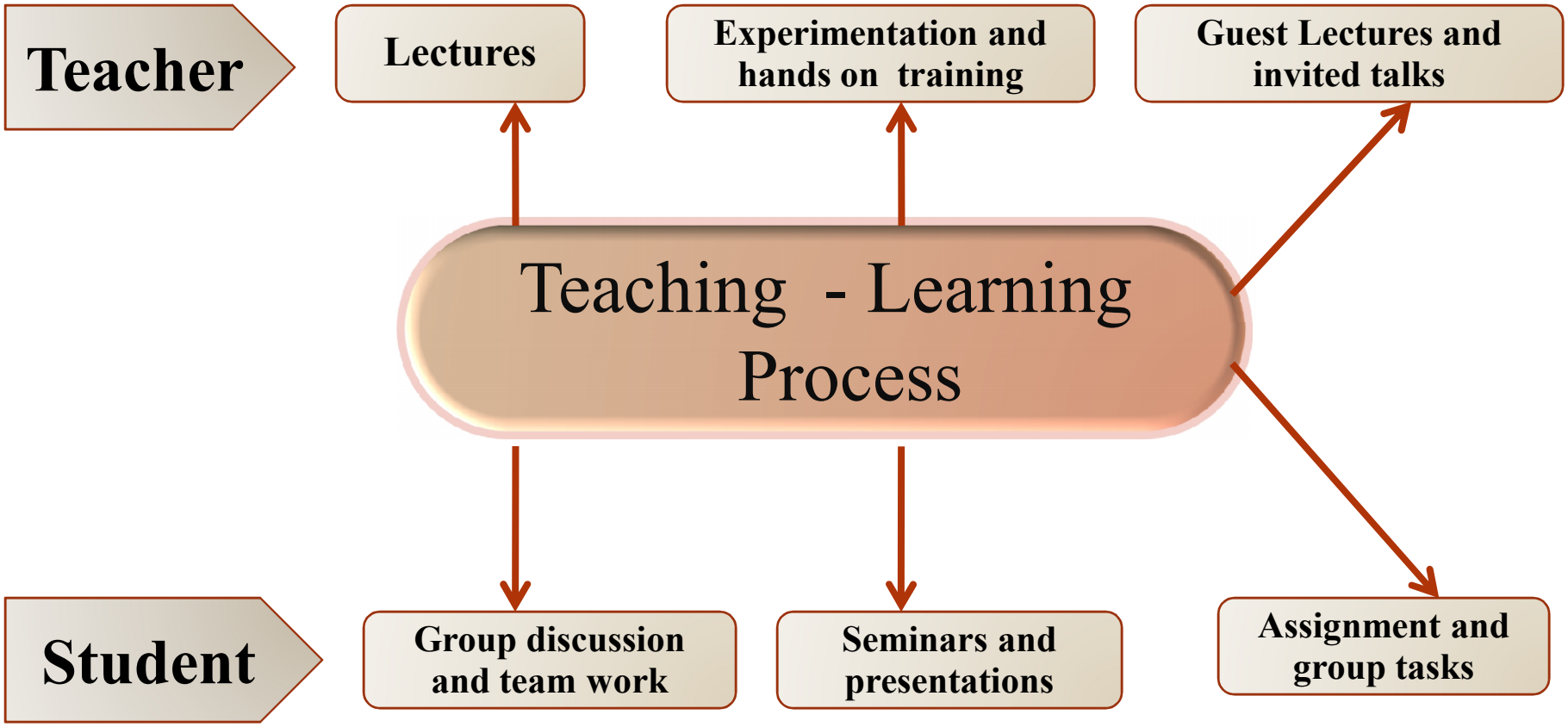
DIGITAL INITIATIVES



INNOVATIVE METHODS FOR ENHANCING THE TEACHING LEARNING METHODS

- Student Enrolment and Profile
- Catering to the Student Diversity
- Teaching and Learning Process
- Teacher Quality
- Evaluation Process and Reforms
- Student Performance and Learning Outcomes

Teaching - Learning Process



TEACHING THROUGH SMART CLASSES





Enhancing Teaching – Learning Process

Lecture Deliberation in e-Learning Centre for 25000 BSW Students of the State



By

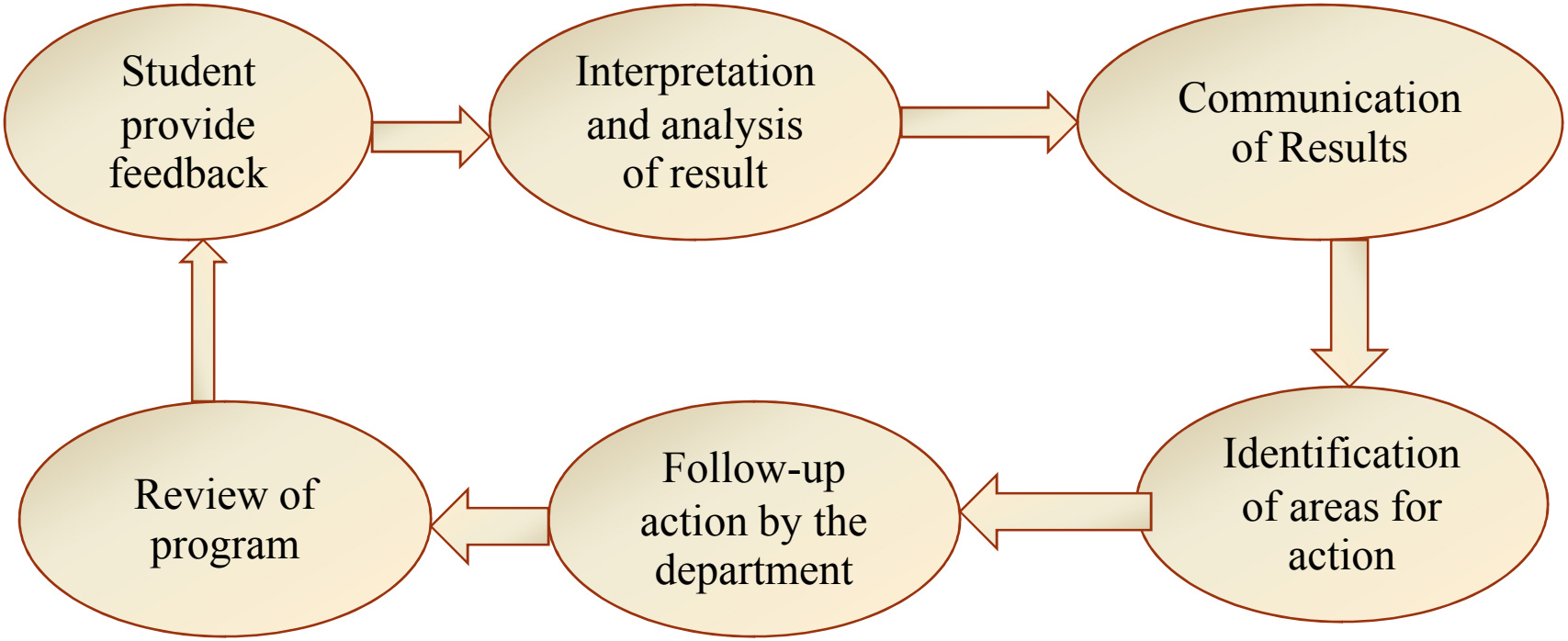
Dr. D.P. Singh,

Chairman,

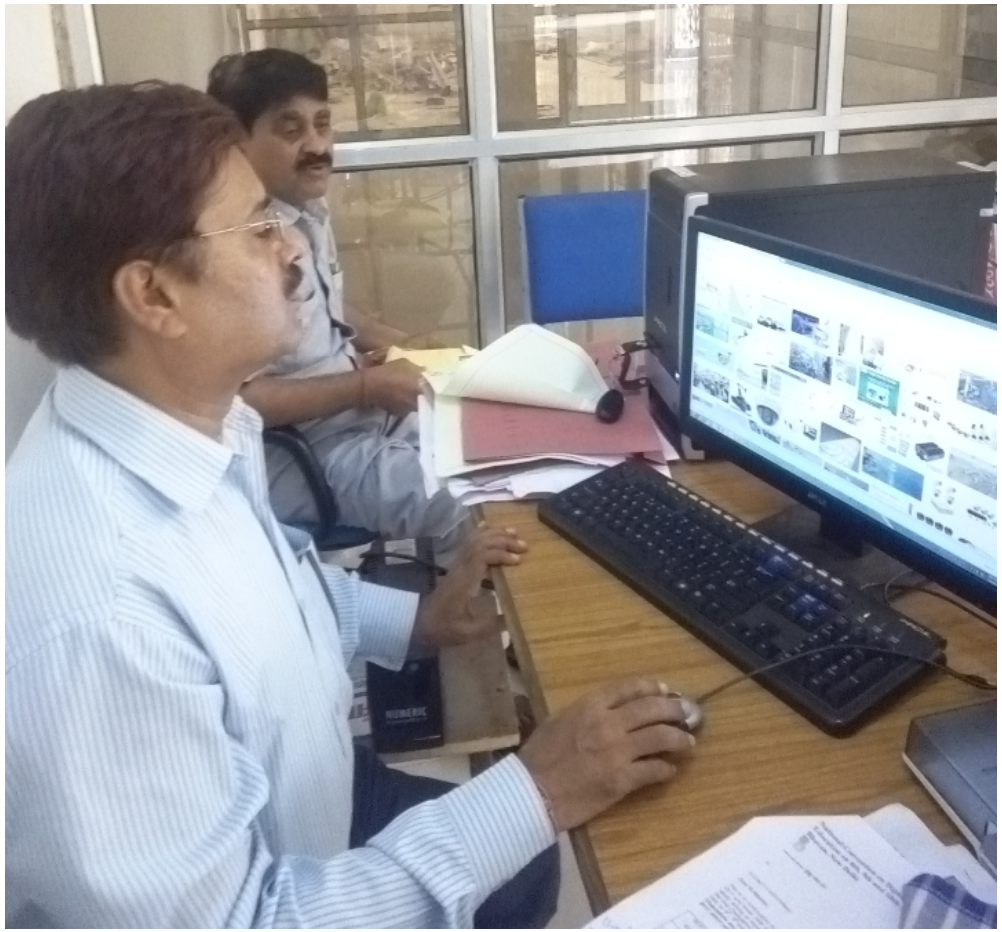
NAAC

FEEDBACK SYSTEM

A Performa based on NAAC recommendations has been designed to obtain feedback on curriculum. It is distributed among the students during/end of each semester for their ONLINE feedback on curricula. Similar process adopted to get feedback from parents and alumnae.

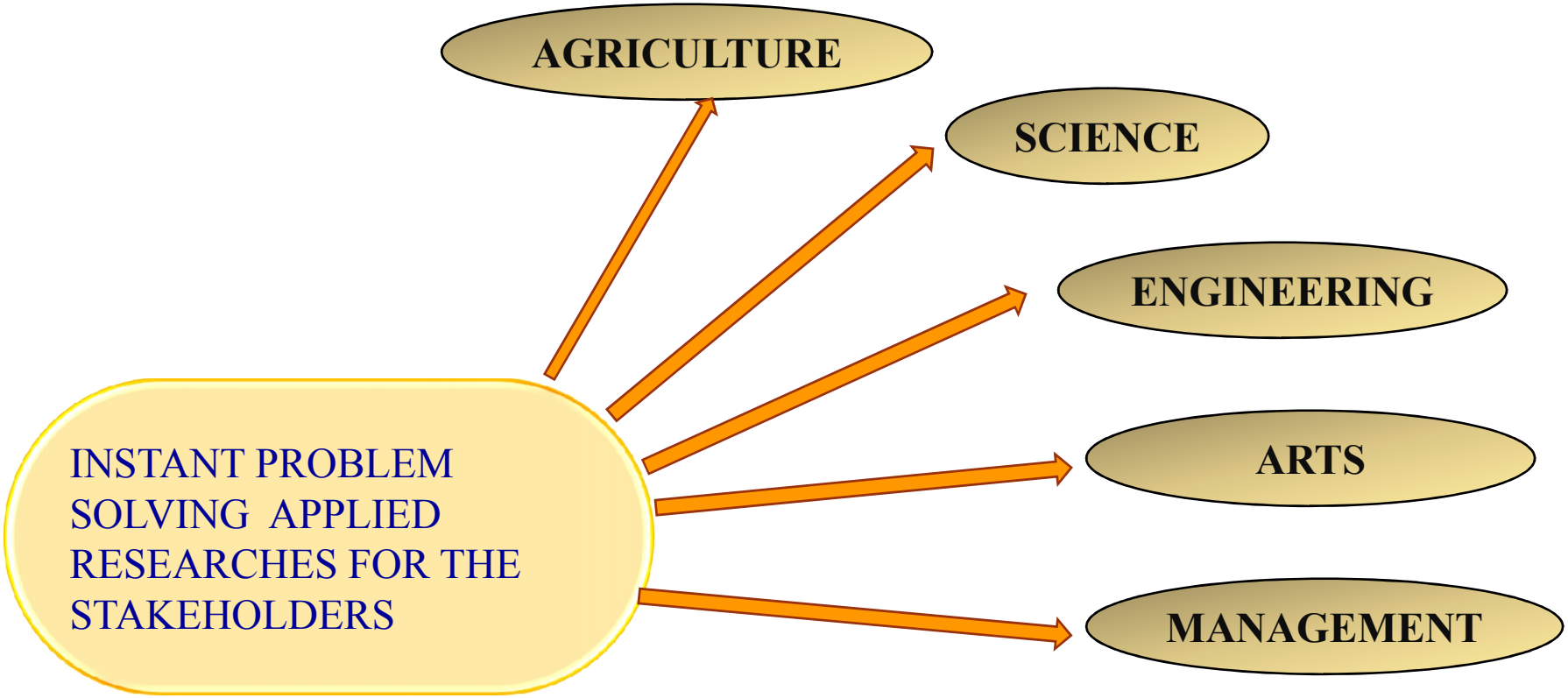


INNOVATIONS IN IMPROVING THE ADMINISTERATION OF INSTITUTIONS



CAMPUS UNDER THE SURVEILLANCE

MEASURES FOR PROMOTING RESEARCH



MAJOR RESEARCH DIMENSIONS

- Local Self Governance
- Human Justice & Development of Weaker Section
- Agriculture and Animal Husbandry for Livelihood.
- Soil Conservation and Water Management.
- Remote Sensing, Resource Inventory, GIS based Planning
- IT for Rural Development.

- Habitat Needs of Energy, Sanitation, Housing.
- Innovative Strategies for People's Education.
- Socio-Economic Problems of Rural Societies.
- Effective Models of Sustainable Development.
- Energy Utilisation

Promotion of Research

- advancing funds for sanctioned projects
- providing seed money
- simplification of procedures related to sanctions / purchases to be made by the investigators
- autonomy to the principal investigator/coordinator for utilizing overhead charges
- timely release of grants
- timely auditing
- submission of utilization certificate to the funding authorities

Research Facilities

To meet out the need of **infrastructure,** University has undertaken extension of Science/Arts/ Engineering/ Agriculture buildings with all the modern facilities. This additional infrastructure paved the way for judicious use of the existing facility which was occupied by the departments.

New major equipment such as Texture analysers, Mainframe Servers HP Proliant, softwares in remote sensing and GIS laboratory are working in the University.

The adequate infrastructure and resources motivate researchers to undertake sponsored and self initiated projects.

Wi-Fi and Internet Facility

Uninterrupted power supply

Dedicated Staff for Laboratory maintenance

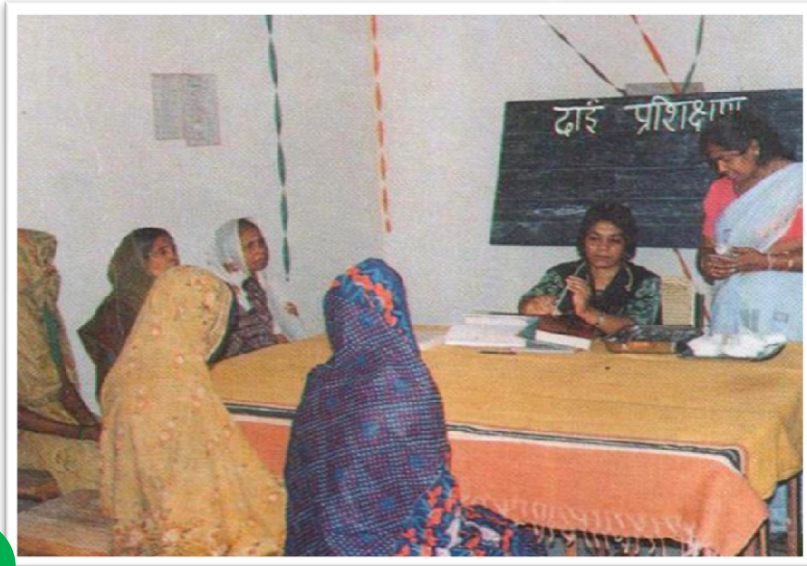
Provision and maintenance of basic research facilities.

INTIATIVES FOR IMPROVING LIVELIHOODS











Vocational Training For Employment









Off Campus Skill Development





INTIATIVES FOR IMPROVING LIVELIHOODS

BSW (COMMUNITY LEADERSHIP)

FIRST YEAR	SECOND YEAR	THIRD YEAR
Introduction to Social Work	History and Methods of Social Work	Secondary Methods and Fields of Social Work
Issues and Problems of Development	Community Organization and Moblization	Formation & Management of Voluntary Organizations
Leadership Development	Panchayatiraj and Rural Development	Micro Finance and Entrepreneurship Development
Communication and Life Skill Education for Development	Women Development and Empowerment	Rural Technology
Nutrition and Health Care	Legal Literacy	Fundamentals of Accounting
Child Development, Protection and Education	Computer Skill	Environmental Education
Field Work Practice	Field Work Practice	Field Work Practice
CERTIFICATE	**DIPLOMA**	**DEGREE**

Job Roles : Food Processing

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Assistant Lab Technician - Food and Agricultural Commodities	FIC/Q7601
			Jam, Jelly and Ketchup Processing Technician/ Lab Technician	FIC/Q5002
2.	Diploma	5	Food Products Packaging Technician	FIC/Q7001
			Processed Food Entrepreneur	FIC/Q9001
3	Advanced Diploma	6	Food Regulatory Affairs Manager	FIC/Q9002
			Quality Assurance Manager	FIC/Q7602
4	Degree	7	Production Manager	FIC/Q9003

Job Roles: Retail Management & IT

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Retail Sales Associate	RAS/Q0104
			Self-employed Retailer/Individual Sales Professional	RAS/Q0201
2.	Diploma	5	Retail Team Leader	RAS/Q0105
			Business Builder/Dukandar	RAS/Q0202
3	Advanced Diploma	6	Departmental Manager	RAS/Q0106
			Multichain Business Owner/Multichain Vyapari	RAS/Q0203
4	Degree	7	Retail Store Manager	RAS/Q0107

INTIATIVES FOR IMPROVING LIVELIHOODS

Agricultural Operations & Mgt

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Agriculture Field Officer	AGR/Q7701
			Soil & Water Testing Lab Assistant	AGR/Q8102
2.	Diploma	5	Soil & Water Testing Lab Analyst	AGR/Q8103
			Watershed Supervisor	AGR/Q6605
3	Advanced Diploma	6	Watershed Engineer	AGR/Q4606
			Agriculture Extension Executive	AGR/Q7602
4	Degree	7	Watershed Manager	AGR/Q6604

INTIATIVES FOR IMPROVING LIVELIHOODS

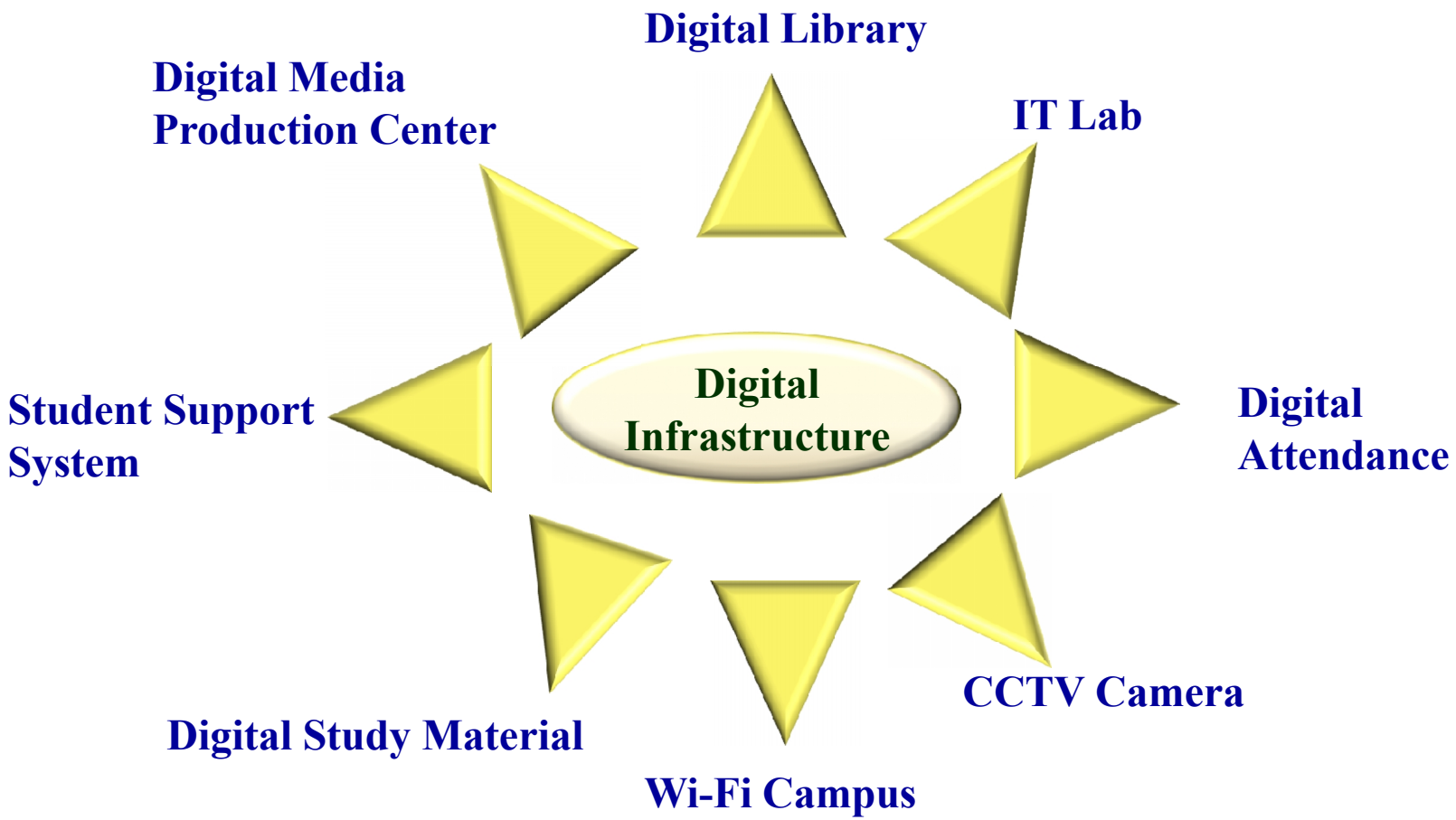
Renewable Energy Technology & Mgt

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Solar PV Installer(Electrical)	SGJ/Q0102
			Solar PV Installer (Suryamitra)	SGJ/Q0101
2.	Diploma	5	Rooftop Solar Grid Engineer	SGJ/Q0104
			Draftsman	ELE/Q7101
3	Advanced Diploma	6	Rooftop Solar PV Entrepreneur	SGJ/Q0104
4	Degree	7	Solar Proposal Evaluation Specialist	SGJ/Q0105

Building Construction Technology

S.N.	Award	Level	Job Roles	QP code
1.	Certificate	4	Construction Electrician	CON/Q0603
			Construction Laboratory & Field Technician	CON/Q0402
2.	Diploma	5	Foreman Concrete	CON/Q0110
			Foreman – Electrical Works (Construction)	CON/Q0604
3	Advanced Diploma	6	Supervisor - Electrical Works	CON/Q0605
			Surveyor	CON/Q0902
4	Degree	7	Quality Technician	CON/Q0403

IMPARTING DIGITAL EDUCATION



PLAN OF ACTION FOR QUALITY OF TEACHING



SWACHH BHARAT ABHIYAAN





Shramdaan,
Tree Plantation, Sanitation Awareness Campaign and Yoga are regular and mandatory features of University since its inception


महात्मा गाँधी चित्रकूट ग्रामोदय विश्वविद्यालय
चित्रकूट जिला-सतना (म प्र)
STOP
Thanks

Digital Education Imparting: Knowledge Revolution

DR. BABU SEBASTIAN
VICE CHANCELLOR
MAHATMA GANDHI UNIVERSITY
KOTTAYAM, KERALA

Digital Learning Initiative (DLI)

We are excited to provide opportunities for improved learning and transformation of the educational experience

- The Digital Learning Initiative (DLI) provides a method to blend traditional, high-functioning classrooms with personalized, technology-rich digital classrooms - making a blended learning environment for our students.
- Educational trends support the need for students to become fluent in researching and acquiring information, in being critical thinkers able to solve problems, developing skills to communicate and work collaboratively, and to be innovators with focus on fostering creativity.
- Technology tools and resources enhance the way we prepare our students for their future college and career.
- Solid curriculum, innovative instruction, and digital learning strategies both inside and outside of the classroom combine to create increased levels student engagement and learning.

Why Digital Learning?

- Digital learning provides students with opportunities to be quality producers of digital content, products, and work otherwise not possible in a traditional environment.
- By sharing and working with their peers, problem-solving and collectively working on projects and assignments through technology-enhanced curriculum, students are collaborative workers and complex thinkers.
- Digital learning provides students technology-enhanced methods to be quality producers otherwise not possible in a traditional environment.
- Finally, digital learning opens up a world of possibilities to students to connect and collaborate with the community and beyond providing more opportunity to be community contributors.

Benefits to Students

- **Better Learning** –The use of multimedia classes with simulations and visualizations provide a richer learning environment toward a better understanding of concepts. Annotation technologies, discussion boards, and online support provide additional forums for discussion, debate, conjecture, and edification.

- **Best Practises**- Active individual engagement of students , hands-on experiences, group discussions and activities allow students to experience learning

- **Learn anytime, anywhere**: The technology provides the learner to learn from anywhere at any time. This helps students access advanced information needed for their thesis research when they need it. Digital learning makes education more accessible and affordable to students on campus and also worldwide.

Benefits to instructors

- **Leverage time better**: Digital learning provides quick feedback to instructors on where students are struggling, allowing teachers to provide additional instruction and answers to common questions, either online or in person. Automation eases or eliminates routine grading, freeing course teams to spend more face-to-face time with students.
- **Spread knowledge widely**: Digital platforms allow instructors to reach more students, often by orders of magnitude than via on-campus courses. Instructors can disseminate new ideas more quickly, touching more people and impacting more lives.
- **Engage a worldwide audience**: Digital platforms allow instructors to meld worldwide participants into campus teaching, creating global conversations – resulting in richer teaching experiences, from architecture and entrepreneurship, to climate change and innovation, and beyond.
- **Build learning modules quickly**: Digital learning empowers instructors to build courses using the best content previously developed by other instructors and colleagues, whether within the same department, or even at other institutions. This "digital abstraction" for modular learning content is the real meaning behind the "digital" of digital learning.
- **Improve instructional techniques**: Through evidence-based research, instructors can measure how people learn most effectively and respond with scientifically grounded strategies for educating students.

Digital platform

Digital Platform consists of the following components

- Digital Content Creation Studio & UMMRC
- Digital Storage of the digital Contents and Delivery
  - Information Power House
  - Data Centre-Servers and Storage
  - Campus Network
  - Smart Classroom
  - Wi-Fi network at university and colleges
  - Security and authentication
  - Webcasting
  - Mobile Application for Individuals
- Digital Knowledge Network Framework
- Tele Presence for real learning experience

Digital Content Creation

- MGU has set up a centre to create content in the form of video that support a massive open online course (MOOC).
- These contents are gathered and made accessible to other academics or the public through publications, databases, libraries and digital libraries.
- Academic content may be closed source or open access (OA).
  - Closed source content is only available to authorized users or subscribers. An important journal or a scholarly database may be closed source, available only to students and faculty through the institution's library.
  - Open access articles are open to the public, with the publication and distribution costs shouldered by the institution publishing the content.

Need of Digital Multimedia content

- Still the old British teaching methods such as black board, choke, lecturing, paper and pen are being used in the area of higher education sector of our state.
- But significance change in the classroom concept and teaching and learning process has been established in the developed countries such as multimedia content, virtual class room, interactive white board video conference facility , internet access, collaborative learning, group activities, learning portal etc.
- New educational psychology recommending activity oriented learning instead of traditional listening. Through listening the students will get an opportunity to get 20% knowledge and by seeing 50% of knowledge, and through doing 80% knowledge acquisition can happen.
- Now Knowledge is free from the constraint of time place and person. So its our responsibility to provide an opportunity to our students at any where any time learning . This is the ultimate need of 21st century.
- Now a days urban students are gifted with more higher educational facilities compared to the tribal rural and coastal students. Access, equity and quality in education are the main objective of the ministry of human resource , Govt. of India.
- Hence it's the time for ensuring equal opportunity for all the students especially the students from tribal, rural and coastal and other backward regions to access to the knowledge centres.

The Role of the Local Teacher

- The importance of two-way communication between instructors and students in class is well recognized. Technologies that over-emphasize “one way” communication of e- content often lead to student disengagement. Hence, any such technology intervention should recognize the vital role played by the local faculty member.
- Offering multimedia courses in technology-assisted modes has not only become invaluable for the learner, but also an attractive and creative option for faculty. Such courses have the potential to enhance the on-and off-campus learning experience for students and in a distance learning mode.
- Technology opens up several interesting avenues for innovation in design and delivery of courses as also for sharing expertise among faculty in different parts of the world. In India, where a large number of private institutions have entered the field of engineering education with inadequate faculty support and training, the project is aimed at providing a standard for academic content for both the teacher and the student
- Many of the courses, especially basic core courses in science and engineering are similar across many institutions in the country. Most institutions offer program in traditional branches of engineering with a large number of similar courses forming a substantial part of the undergraduate curriculum.


GET INTO PC

The Role of the Local Teacher

- There is clearly a lot of advantage in sharing the development work in these courses. Every instructor in India higher education institution must be provided tools and training to migrate all forms of instructional content that can be digitized into digital form, over the next five years.
- MGU has setup a studio for recording high-quality e-content. These facilities are made available to instructors at these institutions, as well as at all affiliated institutions.
- This facility is used for e- content creation by recognized experts, and have trained technician on hand to ensure that instructors can be given prompt help with any hardware and software issues.

Digital Storage of Digital Contents

1. **Information Power House :**
   - MGU has created Cloud-based Repository of digital instructional materials. This Repository will provide both a single-point access for students and teachers to access content created by other institutions, and will provide data-backup for institutions for their local media servers.
   - For the ICT based learning and research, all digital resources such as e-books, e-journals, doctoral thesis, academic level publications, interactive multimedia learning objects, video lessons, audio lessons, animations, graphics, simulations, virtual labs, dictionary, encyclopaedia, etc. Available with Indian and foreign university's/ agencies / institutions to be collected to form an information power house at university. Later these power houses can be clustered together to form a state level digital repository. This information power house would be made available for students from all college and university for their learning. The infrastructure for building the above should be implemented at university level.

Digital Storage of Digital Contents

2. Data Centre

- MGU has already set up a State of the art Data centre to run the services.
- The data centre meets international standards in sustainability and efficiency, reducing your total energy consumption.
- Data centres provide a secure facility for housing vital IT services across the University.
- These facilities are available to departments, faculties and colleges and allow them to physically locate computing equipment in a highly secure and controlled environment.

Digital Storage of Digital Contents

3. Campus wide Network

- 1 GB campus network is a must in all institutions to deliver all the services related to e gov and e learning.
- Proper network audit should be carried out in the existing network before going the upgradation.
- MGU has implemented OFC back bone as per the proper standards. Core switch, distribution switch and access layer switches are to implemented for the network.
- Network is designed considering for the future workloads also.

Digital Storage of Digital Contents

4. Smart Classrooms

MGU has implemented 15 Smart classrooms and each classroom has:

- “ultra short throw” fixed digital projector for displaying a variety of e-content, with sufficient brightness for the room.
- Micro pc (without monitor) that can be used to display slides, videos, and other e-content using the projector.
- Powerful audio system (100 Watts powered speakers)to connect it to PC. Digital Mixers are provided for echo cancellation and noise reduction
- Higher End Video Conferencing equipment are provided for Immersive meeting
- Boundary layer microphones are provides for natural voice reproduction and to avoid unwanted sound
- Acoustics has done for better listening
- Modern type ARC benches are provided
- Multiple level platform provided for better viewing
- Access to a shared 100Mbps Local Area Network (LAN) and Wireless LAN (W-LAN), through which the instructor can access the institution’s Media Server



Digital Storage of Digital Contents

5. Wi-Fi-Network

- Employees, students, and guests will have shared access to wireless network resources to support the MGU's mission of teaching, research, and outreach.
- Anyone who wishes to connect to the MGU's authoritative campus network with a laptop or other wireless device must use wireless network infrastructure devices that are owned by and centrally managed by the institution to ensure integrity, security, and availability for appropriate educational and business activities.
- Around 100 APS are installed IN MGU , work is going on

Digital Storage of Digital Contents

6. Network Security (Gateway)

- The core structure of this project is Strong
- Authentication/ good content filtering with proper Anti-virus for the secure Service access through net. The content filter keeps Web surfing safe for your users, and guards them against viruses and unwanted content such as violence, pornography or illegal software.
- It allows teachers to securely monitor the network's Internet access to ensure compliance and improve productivity.
- AAA authentication system is implemented to prevent any unauthorized access

Digital Storage of Digital Contents

7. Web casting

- Webcasting is a general term in IT that refers to broadcasting or presenting over the Internet.
- MGU University also focused on providing webcasting services to stake holders .
- Webcasting can be done in a pre-recorded and pre-arranged series, which end users access on demand. University will webcast lecture where a lecture on location can

8. Mobile Application:

- A mobile application has been implemented at university level to access the application and contents provided.

Knowledge Network Framework

Scope and Objective

- MGU has established Knowledge Network Framework with affiliated college for the knowledge dissemination. University has huge learning resources and able to prepare e-learning recourses for students and teachers for their affiliated colleges.The quality of education depends on how the colleges are providing resources to faculties and students. These resources will enhance the quality of education, students and faculty profiles then to the college as well.
- Using this network we can share not only learning resources but also secure data transmission like examination marks, question papers etc. The University is part of INFLIBNET and NKN, through which many e-learning materials are shared by the UGC. In addition to this University subscribed many e-journals, e-books and e-magazines.. The electronic materials subscribed by the University can be effectively used by sharing the materials to the students and teachers in affiliated colleges.

Knowledge Network Framework

Major advantages :

- Maximize the resource utilisation
- Cost effective to users
- Provision for more subscriptions
- Provision for more storage in e-recourses
- Creation of video learning solutions
- Broadcasting of classes

Knowledge Network Framework

Through VPN, the following can be shared among universities and colleges:

- Secured Data transfer between colleges and university related to E-Governance
- E-Leaning project
- Presentations
- E-books, E-journals
- Digital Libraries
- MOOC
- Principal meetings, Discussions
- Live classes from University by eminent speakers
- Online courses
- Video courseware's in different subjects
- Documents related to administration

Knowledge Network Framework

Telepresence Solution

- Telepresence is a state-of-the-art secure, high definition, digital video conferencing system.
- The system focuses on providing the most realistic experience for its users offering high-quality spatial audio and video.
- Meeting participants appear life-like and life-size across the “virtual table” that is created by Telepresence.



Telepresence System : Advantages

- Expands the learning environment of the students by offering them a virtual window and thus increased access to learning for all.
- Offers integrated, flexible distance learning opportunities to achieve educational excellence
- Simulates a traditional face-to-face environment which is the ancient form of teaching, but no longer limits where the students and teachers being in the same place.
- Participants at multiple sites are able to see, hear, and interact with each other in real time.
- Delivers a versatile interactive education to meet the needs and requirements of 21st century learners as global citizens of the world.
- Students explore the world, travel to various locations, and interact face-to-face with others without ever leaving the classroom. The students could extract the wisdom, expertise, innovation and knowledge of anyone, anytime, anywhere
- It is evident that streaming video and multimedia content are successfully engaging students in new forms of active and collaborative learning
- Telepresence is not intended to replace traditional classroom teaching or online learning. Rather, it complements both,
- A suitable solution which will overcome deficiencies in staffing, inability to offer required courses, and increased difficulty in obtaining professional development training.
- Cost effective solution to the Rural area educational institution

MG University Telepresence System

- The MG University Telepresence System (MGUTS) is an initiative that links departments in the university.
- Later all affiliated colleges can be added to the system for more effective classes.
- The University Telepresence system also enables concurrent meetings to be held with different departments and colleges

e –Governance

Technologies for Admissions, Examinations

- All administrative activities related to Admissions, Examinations and Transcripts can be performed transparently and effectively using technology available today.
- Hence, these time-consuming and critical activities should be fully automated .
- We are on the process of automating all activities related to e governance

Thank you



Digital Learning Initiatives in MG University

We are excited to provide opportunities for improved learning and transformation of the educational experience.

The Digital Learning Initiative (DLI) provides a method to blend traditional, high-functioning classrooms with personalized, technology-rich digital classrooms - making a blended learning environment for our students.

Educational trends support the need for students to become fluent in researching and acquiring information, in being critical thinkers able to solve problems, developing skills to communicate and work collaboratively, and to be innovators with focus on fostering creativity.

Technology tools and resources enhance the way we prepare our students for their future college and career.

Solid curriculum, innovative instruction, and digital learning strategies both inside and outside of the classroom combine to create increased levels student engagement and learning.

Why Digital Learning?

Digital learning provides students with opportunities to be quality producers of digital content, products, and work otherwise not possible in a traditional environment.

By sharing and working with their peers, problem-solving and collectively working on projects and assignments through technology-enhanced curriculum, students are collaborative workers and complex thinkers.

Digital learning provides students technology-enhanced methods to be quality producers otherwise not possible in a traditional environment.

Finally, digital learning opens up a world of possibilities to students to connect and collaborate with the community and beyond providing more opportunity to be community contributors.

Benefits to Students

- Better Learning –The use of multimedia classes with simulations and visualizations provide a richer learning environment toward a better understanding of concepts. Annotation technologies, discussion boards, and online support provide additional forums for discussion, debate, conjecture, and edification.

- Best Practises- Active individual engagement of students , hands-on experiences, group discussions and activities allow students to experience learning

- Learn anytime, anywhere: The technology provides the learner to learn from anywhere at any time. This helps students access advanced information needed for their thesis research when they need it. Digital learning makes education more accessible and affordable to students on campus and also worldwide.

Benefits to instructors:

- Leverage time better: Digital learning provides quick feedback to instructors on where students are struggling, allowing teachers to provide additional instruction and answers to common questions, either online or in person. Automation eases or eliminates routine grading, freeing course teams to spend more face-to-face time with students.
- Spread knowledge widely: Digital platforms allow instructors to reach more students, often by orders of magnitude than via on-campus courses. Instructors can disseminate new ideas more quickly, touching more people and impacting more lives.
- Engage a worldwide audience: Digital platforms allow instructors to meld worldwide participants into campus teaching, creating global conversations – resulting in richer teaching experiences, from architecture and entrepreneurship, to climate change and innovation, and beyond.
- Build learning modules quickly: Digital learning empowers instructors to build courses using the best content previously developed by other instructors and colleagues, whether within the same department, or even at other institutions. This "digital abstraction" for modular learning content is the real meaning behind the "digital" of digital learning.
- Improve instructional techniques: Through evidence-based research, instructors can measure how people learn most effectively and respond with scientifically grounded strategies for educating students.

Digital Plat form consists of the following components

1) Digital Content Creation Studio & UMMRC
2) Digital Storage of the digital Contents and Delivery

    a. Information Power House
    b. Data Centre-Servers and Storage
    c. Campus Network
    d. Smart Classroom
    e. Wi-Fi network at university and colleges
    f. Security and authentication
    g. Webcasting
    h. Mobile Application for Individuals

3) Digital Knowledge Network Framework
4) Tele Presence for real learning experience

Digital Content Creation-

MGU has set up a centre to create content in the form of video that support a massive open online course (MOOC). These contentsare gathered and made accessible to other academics or the public through publications, databases, libraries and digital libraries. Academic content may be closed source or open access (OA). Closed source content is only available to authorized users or subscribers. An important journal or a scholarly database may be closed source, available only to students and faculty through the institution's library. Open access articles are open to the public, with the publication and distribution costs shouldered by the institution publishing the content.

Need of Digital Multimedia content

Still the old British teaching methods such as black board, choke, lecturing, paper and pen are being used in the area of higher education sector of our state. But significance change in the classroom concept and teaching and learning process has been established in the developed countries such as multimedia content, virtual class room, interactive white board video conference facility , internet access, collaborative learning, group activities, learning portal etc… New educational psychology recommending activity oriented learning instead of traditional listening. Through listening the students will get an opportunity to get 20% knowledge and by seeing 50% of knowledge, and through doing 80% knowledge acquisition can happen. Now Knowledge is free from the constraint of time place and person. So its our responsibility to provide an opportunity to our students at any where any time learning . This is the ultimate need of 21st century. Now a days urban students are gifted with more higher educational facilities compared to the tribal rural and coastal students. Access, equity and quality in education are the main objective of the ministry of human resource , govt. of India. Hence it's the time for ensuring equal opportunity for all the students especially the students from tribal, rural and coastal and other backward regions to access to the knowledge centres.

The Role of the Local Teacher

The importance of two-way communication between instructors and students in class is well recognized. Technologies that over-emphasize "one way" communication of e- content (which includes live lectures, or pre-recorded content with no inputs from the local teacher) often lead to student disengagement. Hence, any such technology intervention should recognize the vital role played by the local faculty member.

The concept of multimedia based courses with high potential of interactivity has become a popular and a viable option for both the developed and the developing nations, though for different reasons. Offering multimedia courses in technology-assisted modes has not only become invaluable for the learner, but also an attractive and creative option for faculty. Such courses have the potential to enhance the on-and off-campus learning experience for students and in a distance learning mode. Technology opens up several interesting avenues for innovation in design and delivery of courses as also for sharing expertise among faculty in different parts of the world. In India, where a large number of private institutions have entered the field of engineering education with inadequate faculty support and training, the project is aimed at providing a standard for academic content for both the teacher and the student

Many of the courses, especially basic core courses in science and engineering are similar across many institutions in the country. Most institutions offer program in traditional branches of engineering with a large number of similar courses forming a substantial part of the undergraduate curriculum. There is clearly a lot of advantage in sharing the development work in these courses. Every instructor in India higher education institution must be provided tools and training to migrate all forms of instructional content that can be digitized into digital form, over the next five years.



- MGU has studio for recording high-quality e-content. These facilities are made made available to instructors at these institutions, as well as at all affiliated institutions. This facility is used for e- content creation by recognized experts, and have trained technician on hand to ensure that instructors can be given prompt help with any hardware and software issues.

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The Government of Indiais converting convert every classroom in every higher education institution in the country to a smart classroom. MGU has implemented 15 Smart classrooms as per the details below



- Each smart classroom equipped its own fixed digital projector for displaying a variety of e-content, with sufficient brightness for the room. A “ultra short throw” projector is used, projecting onto a dual purpose whiteboard.

- Each smart classroom has a Micro pc (without monitor) that can be used to display slides, videos, and other e-content using the projector.
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For secured network connectivity between university and colleges, VPN can be established. Each college is connecting to university data centre through VPN connectivity and accountable resources are shared through this connectivity. The following can be shared among universities and colleges:

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E-Leaning project

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- ✓ Through telepresence, students explore the world, travel to various locations, and interact face-to-face with others without ever leaving the classroom

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MOTHER TERESA WOMEN'S UNIVERSITY,
KODAIKANAL-624 101
TAMILNADU



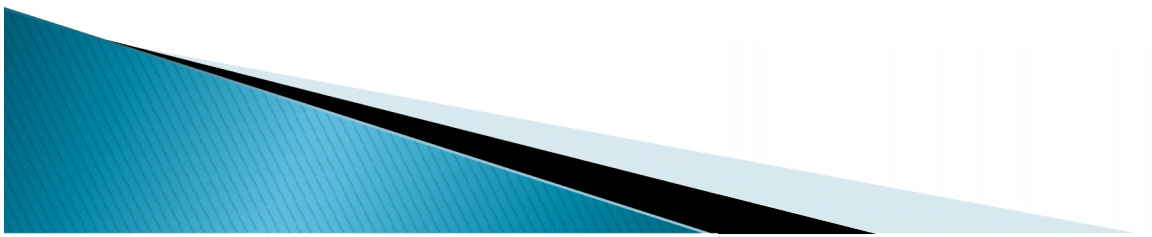
BEST PRACTICES AT MOTHER TERESA WOMEN'S UNIVERSITY

Dr. G. VALLI
Vice Chancellor
Mobile No.: 09442541121
Mail.id.: vicechancellor@mothertersawomenuniv.ac.in

Innovative methods for Teaching- Learning Process

- Psychological need of the students are identified and the teaching methods are diversified according to their deep rooted needs.
- Develop e-content and video recording for whole syllabus from 2018-19 syllabus onwards (TANSCHE is planning for 75% uniform syllabus for the State Universities)
- 25% of the syllabus in all departments will be framed for women empowerment linked to societal and extension activities.

- Capacity Building programs for the students to evolve as prime leaders, in taking on responsibilities and sharing delegation of powers and resources to team spirit in achieving destined goals.



- Virtual Dissection software is purchased by the University. Students and Faculty members of Life Science Department in University and Affiliated Colleges are oriented and given user id and password for further usage in their practical classes. It will be constantly upgraded with advanced software and videos.

- Schedule Video Conferencing lectures and International online Webminars well in advance of the commencement of every academic year regularly.
- Syllabus for Competitive exams given primary importance.
- Online assignments scheduled in accordance with the academic planning of every department.
- Consolidated student feedback on teaching and action is floated on the webpage by IQAC.

- A-VIEW (Amrita Virtual Interactive e-learning World) learning system.

- Universities apart from providing an ideal material environment, should create quality parameters for students moulding their self esteem, self confidence and dignity in enhancing teaching learning process.

- Despite the techno-empowerment and techno-savvy practices, a basic humanitarian approach to the need and care of the students is the imperative demand of the hour, a personal touch will make miracles in altering the students attitude and approach to the learning process rendering them as frontline holistic individuals a society can be proud of as its integral entity.

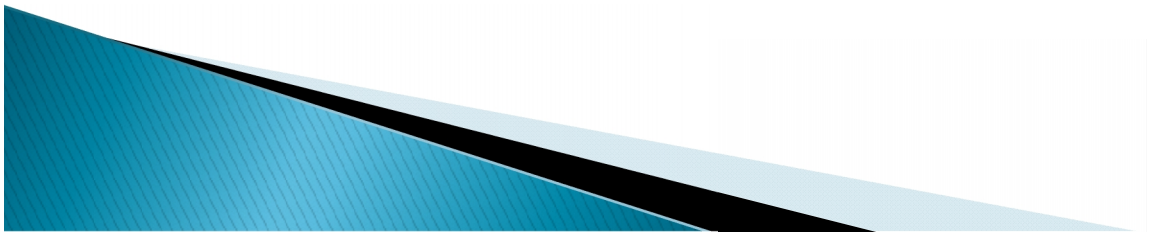
Action taken on reducing the Legal Cases.

- In these emerging times, Universities can not function as simply ivory towards or as islands for promoting intellectual aspirants of young minds.
- Universities have to serves transforming agents, as catalyst of change, to usher in revolutionary ideas pushing the frontiers and intellectual horizons of Universities to the far zenith.

- Courts are platforms, a person resort to legally for seeking redressal to a grievance.

- The Mother Teresa Women's University (MTWU), Kodaikanal has been facing numerous legal cases for its share and as a nodal agency for conduct of TNSET 2015-18, more so has to confront major legal cases including contempt of court.

- As a University, in the threats of development and expansion, setting aside a major portion of its time for attending courts cases saps a lot of its time, energy, money and other material resources.



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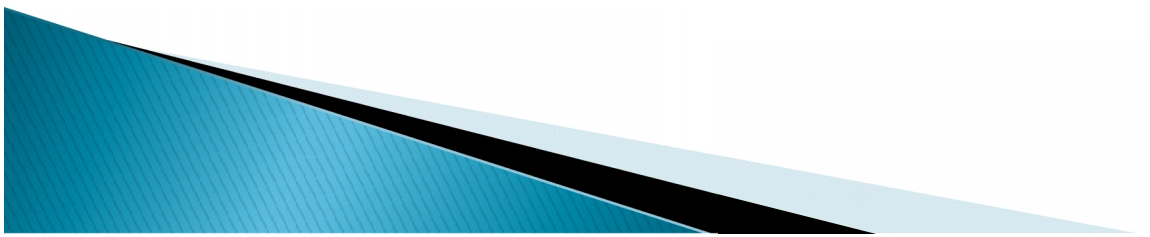

- Individuals under mental stress and psychological insecurity resort to legal redressal have counseled to let go of their ego conflict and face ground realities when resorting to the court which could be a expensive affair for people from non-creamy layer.

- A MTWU Portal for Legal Aid Cell has been created as a Forum for both the parties to sit across the discussion table for a frank and candid expression of their ‘differences’ in perspectives on a case.

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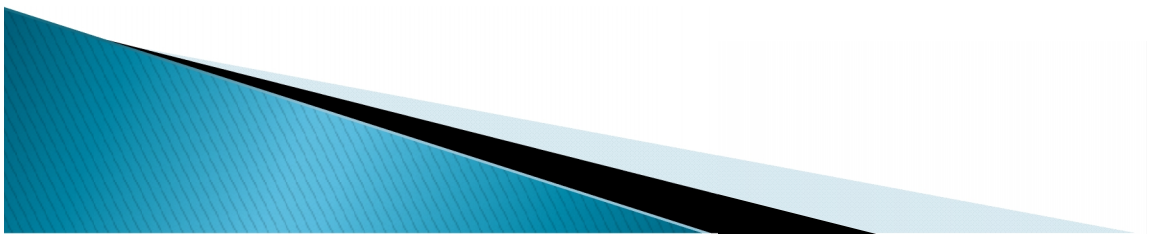

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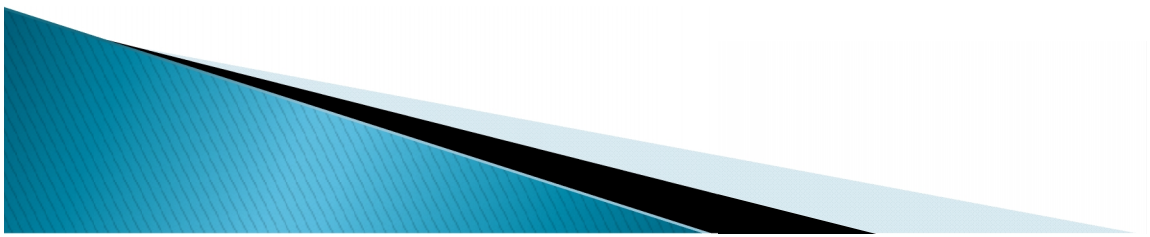

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Savitribai Phule Pune University (SPPU) Contribution Report

"National Convention on Digital Initiatives for Higher Education"

By Dr N R Karmalkar, Vice Chancellor, SPPU

1. SWAYAM:

   SPPU has its own MooC (Massive Online Open Courses) portal
   http://eclm.unipune.ac.in/
   EContent Development & Learning Innovation Center (eCDLIC) is the initiative by SPPU funded by RastriyaUcchatarShikshaAbhiyan (RUSA). The initiative came in production from February 2016. E-content Learning Modules Platform (ECLM) developed by eCDLIC was inaugurated by HRD Minister, Govt. of India. This platform makes available various online academic sessions recorded at e content studio of SPPU as well as organized by academic units on campus to students of the University.

2. SWAYAM-Prabha:

   Through online web telecasting of Vidyavani community radio (for distributing Academic content), university is ensuring reach of Vidyavani in remote areas where the transmission cannot reach and also making available content in Archived format to referwherever required.
   Also, Educational Multimedia Research Center (EM2RC) is one of the centers established by the UGC to promote educational television programs for the Countrywide Classroom project. This Center imparts training in educational e-content generation and management by using multimedia interactive platforms. Currently SPPU has taken intitiative to create Management Faculty eContent.

3. The National Digital Library:

   Provision of e-books and online access to the leading journals through the Central Jaykar Library. Library has 5774 eBooks. Library has purchased EZ proxy software so that access can be provided to subcentres as well as affiliated colleges (693). Library provides web based OPAC (Online Public Access Catalog). Average number of login to OPAC per year is 2,92,022

4. The National Academic Depository (NAD):

   SPPU has MoU with CDSL(Central Depository Services Limited). It hasuploaded and verified degrees from 2016. Total number of degrees available online are 48,000 till date. It has been linked with Aadhar. Students can avail this facility online.

5. eShodh-Sindhu:

Participates in UGC- INFLIBNET program. Under this program access to more than 8000 journals are provided.

6. Virtual Labs:

University has 57 computer labs and 2650 systems available to the students. As a dedicated setup for IT Cell, 26 physical servers and 56 Virtual Servers are hosted at University Data centre. The data centre has been established in 2008. It's Tier-2 datacentre. University has submitted proposal to RUSA for setting up Computer Lab for Cyber Security and has 4 credit course on Cyber Security. It has also submitted proposal for "Train The Teacher" so that the course can be available as skill development credit course to all students in Maharashtra.

7. Campus Connectivity:

University Campus is provided with Wi-Fi and optical fiber connectivity of 1 GBPS. Under ERNET program 4 universities were selected initially for WiFi. Complete campus of campus has WiFi facility now. It is available to all students, Faculty and staff of the university. Looking at the current utilization, university may be eligible for higher GBPS connectivity through NKN (National Knowledge Network),

Apart from mentioned above following are other Digital Initiatives

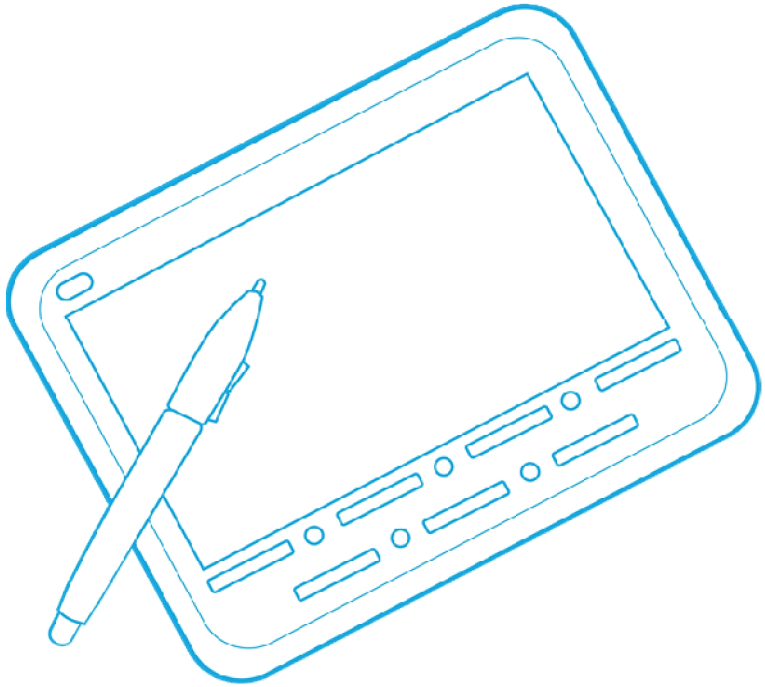
- Separate Portal for Departments are created with usability for each stakeholders(admin.unipune.ac.in, bcud.unipune.ac.in, exam.unipune.ac.in, finance.unipune.ac.in)
- Student Facilitation Center at Pune, A'Nagar, Nashik sub centers IT automation
- CentralisedAssessment Process (CAP) Automation
- Successful Barcode system implementation
- In-house Email System
- Online Transmission of Sessions

Awards

Maharashtra Statee-Governance Award -2013



Ready to scale up



Transforming Examinations

Digital Innovation in exams- *paperless digital examinations*

Dr.K.Ramasamy,
Vice - Chancellor,
Tamil Nadu Agricultural University
Coimbatore

Written Examinations are everywhere…

25m

university students take

250m+

exams annually in India alone



Challenges:

Security: before and during exam

Cycle time: lengthy, complex review & revisiting

Malpractices: paper leaks, candidate impersonation & cheating

Logistics: across multiple locations, storage of answer scripts

Evaluation : security and transparency, errors in marking & tabulation

No analytics: lack of data

Use/ wastage of paper

Solution developed and proven

End-to-end paperless written examinations

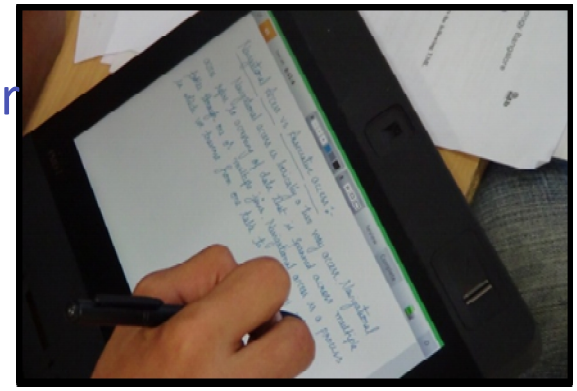
Students write on custom tablet close to paper

Cloud based modules –

Evaluation, administration easy

Huge efficiencies and added security

Saving of paper and energy

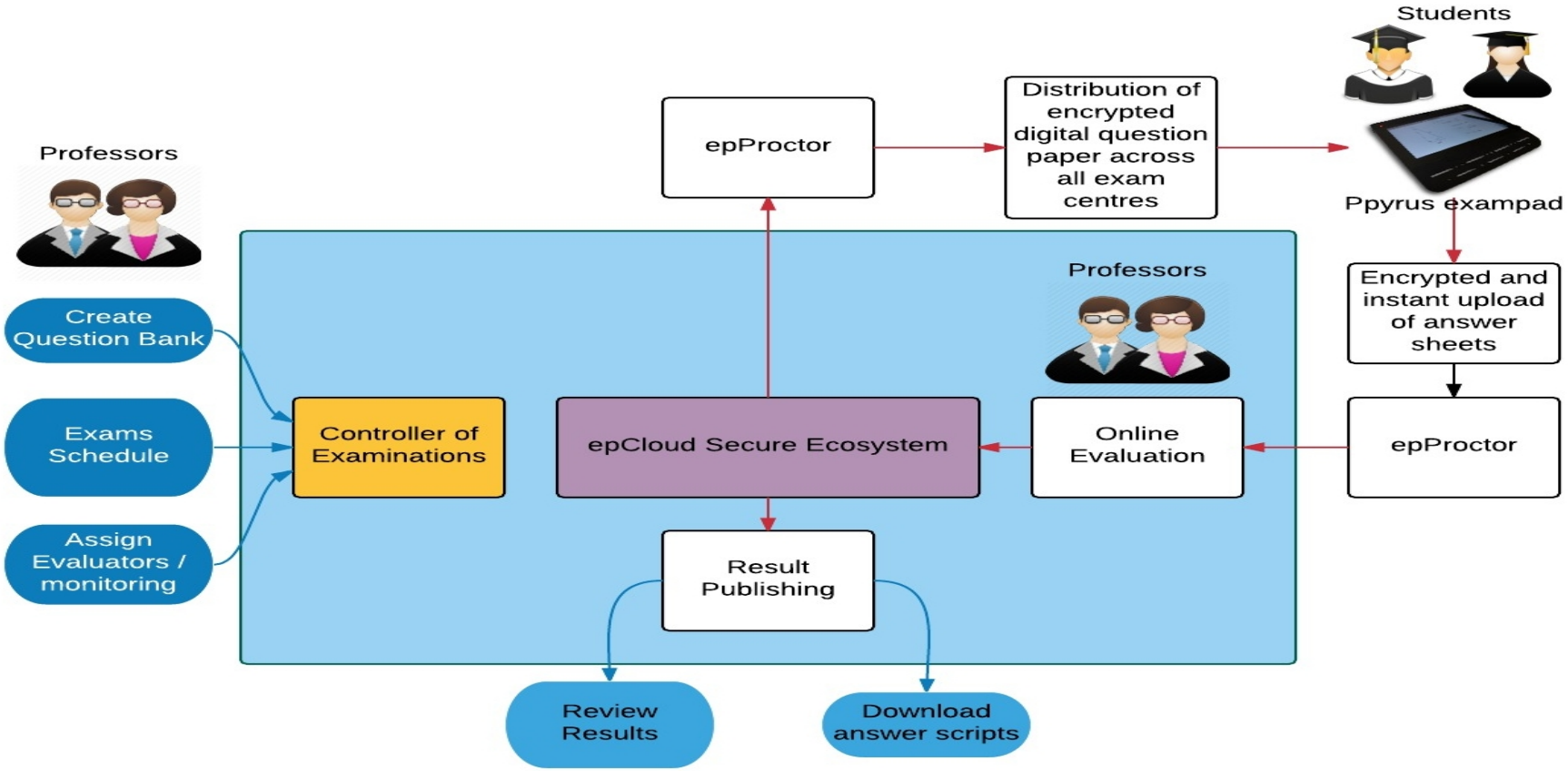


200,000 university exams conducted – 2 million pages

- Across 24 institutions in Tamil Nadu
- Excellent feedback



Paperless written examinations



- **Cuts exam cycle time up to 50%**
- **Fully secure**
- **Anywhere/anytime evaluation**
- **Complete digital audit trail**

Implementation Status

Tamil Nadu Agricultural University (TNAU)

Migrated to Digital Exams 3 years back

17 Colleges, 5000 students currently writing digital exams

Digital Exam Delivery Snapshots









Why TNAU switched over to paperless?

- **200,000+ exams done with zero error** for them over 3 years across multiple exam cycles and locations .
- **Excellent experience/feedback** of students, faculty and Controller of Examination offices.
- **Gains efficiency and obvious advantage -** Cuts total cycle time for exam by 50+%. Security cum Transparency.
- **Environmental impact** – becomes larger issue.
- **Forward thinking**, progressive institution which helps attract students.

Compared to paper the cost involved is justifiable considering the advantages

Digital Initiatives of the Directorate of Extension Education, TNAU, Coimbatore

BY

Dr .K.Ramasamy,

Vice- chancellor

Tamil Nadu Agrl University,

Coimbatore

Digital initiatives carried out at Educational media centre

- ✓ Around 2500 students of various constituent / affiliated colleges of TNAU were imparted with Techniques of video production processes, editing procedures and backgroundvoice over skills on varied languages
- ✓ Video camera handling skills though advanced techniques of Digital video production utilizing the Sony Digital Video Camera

Editing with advanced softwares

- ✓ Advanced editing techniques are being imparted with the editing Softwares like Adobe premiere/Avid Media composer/ and apple series like Final cut pro which is of recent development

Cloud computing videos

- ✓ Cloud computing of Agricultural videos in 3GP on path breaking agrl technologies of about 1712 are being produced by 100s of students representing the UG/PG/Phd levels of TNAU and uploaded in the computer cloud space generated by the State Government of Tamil Nadu along with Amazon

Crash course on multimedia

- ✓ Crash course on media like media advertising Film making, Graphic Designing, Animation Techniques are being offered enrolling 10s of 100s of students to learn media skills and eligible to get employment at private media firms and advertisement agencies
- ✓ Agrl video films produced in the bluray format which is high definition video quality in the digital era

Digital initiatives undertaken at e-Extension centre

- ✓ Establishment of Agri tech portal, a digital initiative started from 2008, created wide range of opportunities to the students community, to gain first hand information on the recent advancements in ICT Products like Agritech Portal, Expert system, mobile app application in Expert System ,e-Velanmai, and Video conferencing

Agritech portal

- ✓ Nearly 22,550 students across Tamil Nadu got exposed on these products who visit the university on educational tours every now and then for past 8 years
- ✓ The portal messages are accessed with the Google play store in Public Domain and M-how Store in the Government of India Domain

Utilitarian benefits for students

- ✓ Benefits accrued by the students include assignment preparation
- ✓ Content for Theses materials
- ✓ Technical details in the form of texts/videos/photos and audio
- ✓ Updated and renewed periodically

DIGITAL INITIATIVES OF TAMIL NADU FISHERIES UNIVERSITY FOR HIGHER EDUCATION

TAMIL NADU FISHERIES UNIVERSITY
FIRST LINE BEACH ROAD
NAGAPATTINAM – 611 001

☎04365 241444 04365 240087

www.tnfu.ac.in

TAMIL NADU FISHERIES UNIVERSITY DIGITAL INITIATIVES FOR HIGHER EDUCATION

Tamil Nadu Fisheries University (TNFU) is the State funded University imparting professional fisheries education, research and extension programmes to enhance fish production and utilization by following the State Agricultural University (SAU) pattern and syllabi.

VISION

“Harnessing the Science of Fisheries for Food, Nutrition and Livelihood”

TNFU IS ESTABLISHED WITH THE FOLLOWING OBJECTIVES

- To impart quality professional education in different branches of Fisheries Sciences as the University may determine.
- To conduct organized research in frontier areas with the objective of developing cutting edge technologies in Fisheries Sciences.
- To provide extension services like training, consultancy, project formulation to fish farmers, fisherfolk, unemployed youth and entrepreneurs in Fisheries Sciences.
- To facilitate comprehensive development of Fisheries Sciences for increased contribution to State economy and set benchmark standards through appropriate interventions in fisheries teaching, research and extension.
- To generate baseline data on aquatic biodiversity and fisheries resource potential.
- To generate high quality professionals in Fisheries Sciences by following the Veterinary Council of India regulations as a model.
- To create better opportunities for marketing and value addition of fish and fishery products.
- To set up an aquatic disease diagnosis and surveillance system in the State.

EDUCATION

Tamil Nadu Fisheries University offers professional degree programmes in Fisheries Science.

- **UG Programmes:**

  - Bachelor of Fisheries Science (B.F.Sc.) - with an intake of 120 students per year.
  - B.E. (Fisheries Engineering) - with an intake of 20 students per year.

- **PG Programmes:**

  - Master of Fisheries Science (M.F.Sc.) in ten disciplines with an intake of 41 students per year.
  - Ph.D. in Fisheries Science in eight disciplines with an intake of 24 students per year.

Many student friendly facilities like library with computer and internet and Wi-Fi facilities, e-learning facilities, student's placement cell are available in the University to promote the interests of students in acquiring knowledge on various aspects of fisheries science as well as in finding their suitable placements.

CONSTITUENT COLLEGES OFFERING UNDERGRADUATE AND POSTGRADUATE DEGREE COURSES

I. Fisheries College and Research Institute (FC&RI), Thoothukudi.

Fisheries College and Research Institute, Thoothukudi is the second oldest college in the country, offering B.F.Sc., M.F.Sc. and Ph.D. degree Programmes. This institute is located in Thoothukudi since 1977. The Fisheries College and Research Institute has 13 departments and a well-established Library and offers M.F.Sc. programmes in 10 disciplines and Ph.D. in 8 disciplines. Separate hostel facilities are available for boys and girls in the campus.



II. Fisheries College and Research Institute, (FC&RI) Ponneri (Thiruvallur district)



Fisheries College and Research Institute located in Ponneri campus, near Chennai was established in 2012. This institute offers B.F.Sc. degree programme from the academic year 2014-15 and M.F.Sc. and Ph.D. programmes from the academic year 2016-17. This Institute has three satellite centres ably supporting the academic and research activities in the location of Madhavaram, OMR Chennai and Pulicat, Thiruvallur district.

III. College of Fisheries Engineering, Nagapattinam.

College of Fisheries Engineering located in Nagapattinam campus offers four years professional degree programme B.E. (Fisheries Engineering) from the academic year 2015-16. Infrastructure facilities of the institution, including student hostels are being established in the Tamil Nadu Fisheries University main campus in Panangudi village, Nagore, on the ECR between Karaikal and Nagapattinam.



IV. Institute of Postgraduate studies, Vaniyanchavadi, Chennai



The Institute of Postgraduate Studies (IPGS) located at Tamil Nadu Fisheries University OMR Campus, Vaniyanchavadi, Chennai is offering postgraduate degree programmes in six discipline from this academic year (2017-18).

DIGITAL INITIATIVES OF THE UNIVERSITY SINCE 2012

Nowadays, the advances in Information and Communication Technology (ICT) have changed the ways of communication in education and delivery of knowledge to the learners. The significance of ICT is now widely recognised and the need for higher learning institutions to contribute knowledge in this area is also emphasised. Therefore, in order to strengthen the digital initiatives for higher education and to provide better digital teaching materials, online and offline educational resources for the students and faculty members, the Department of Fisheries Information and Statistics was established at the Fisheries College and Research Institute, Thoothukudi during 2013 with the following objectives.

1. To teach fisheries information and statistics courses for undergraduate and postgraduate students.
2. To conduct research programmes in fisheries information and statistics.

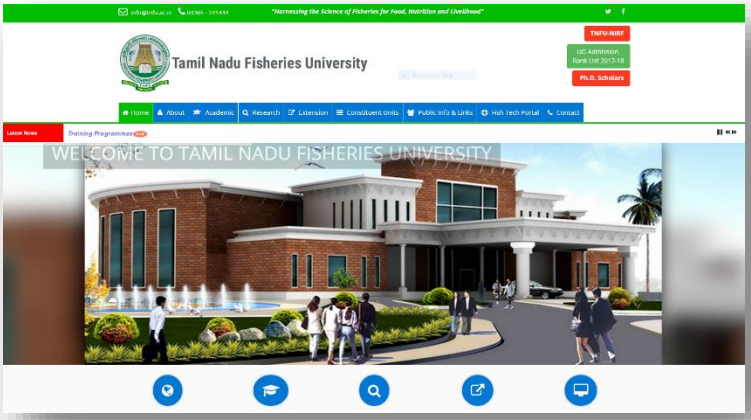
3. To create and maintain fisheries database & information systems and distribute through networks and websites.

4. To develop and distribute online and offline publications for fishing and fish farming communities.

5. To offer online Certificate and Diploma courses in fisheries.

DIGITAL INITIATIVES UNDERTAKEN

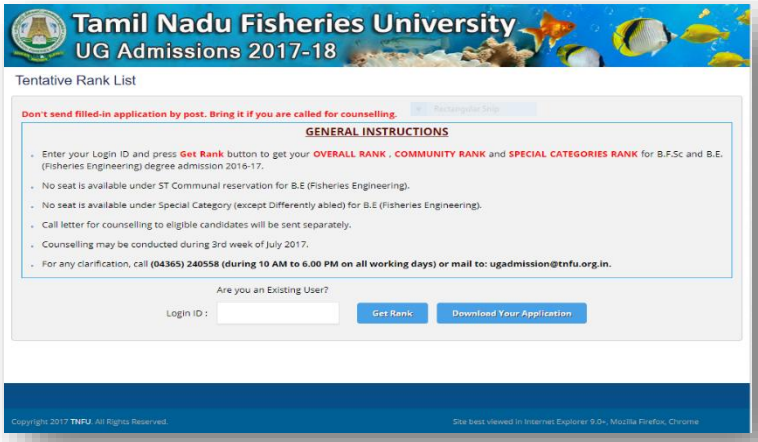
Creation of academic website of the university (www.tnfu.ac.in) with all the relevant information about the university and its constituent units. Various programmes and activities conducted by the university and its constituent units are being updated on the website within 24 hrs.



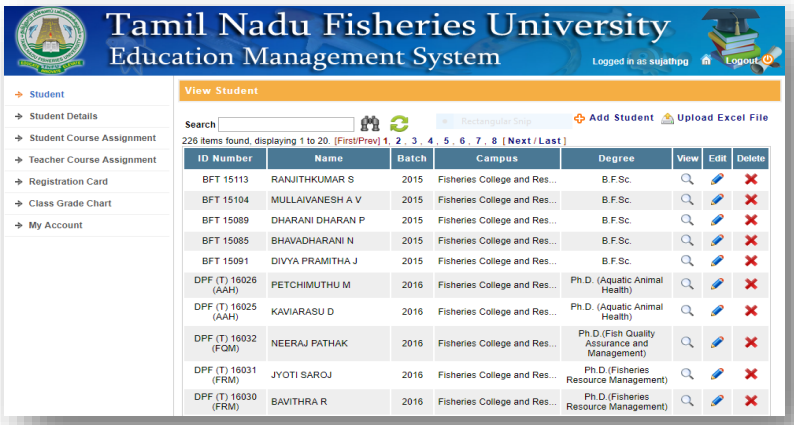
In addition to this, a FishTech Portal was created in the website in which various aquaculture technologies, preparation of value added fishery by-products, etc., are digitalised and available for use by the students as well as the public.



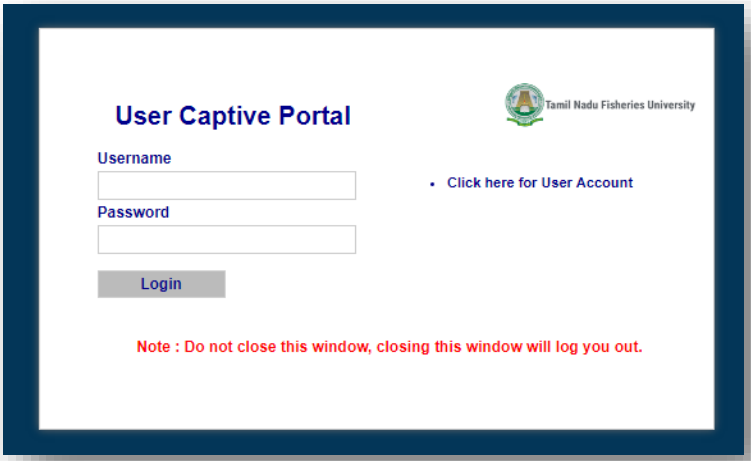
The admission of students for UG and PG programmes of this university is completely online. The students need not send their application, however, they should bring the downloaded application only at the time of counselling. The student could use their login ID (automatically generated at the time of filling the online application) to know their community as well as overall rank. This would considerably reduce the use of paper. Based on the rank, the provisional selection / admission letter is issued to the students on-the-spot during the counselling by using the concerned student login ID. The seats availability will also be displayed in the counselling venue and the students could select the campus of study for BFSc degree programme. The B.E. (Fisheries Engineering) is at present available only at Nagapattinam and therefore, the students have no choice. The online server is exclusively maintained by the university.



Another digital initiative is the online Education Management System (EMS) of the University. The EMS is the software platform in which the students themselves register their semester courses online during the beginning of the semester. All the students are given usernames and passwords for easy access of their accounts. With



the EMS, the students could down download the registration cards, examinations hall tickets, mark statements, etc. The EMS server is wholly maintained by the university.



The Fisheries College and Research Institute, Thoothukudi campus is having well equipped ICT facilities. The college campus and girls hostels (which is away from 3.5 KM from the college campus) are well connected by leased line internet connectivity. The college campus has LAN and secured Wi-Fi connectivity. The staff and students are given a username and password for accessing the internet portal and digital resources of the Library using 172.16.1.1 IP series. Each department has given separate IP series so that no IP conflict will happen ever. The Secured Wi-Fi facility is provided in the college campus, boy's and girl's hostels for 24X7. However, the internet usage can be monitored by the server admin of the college.

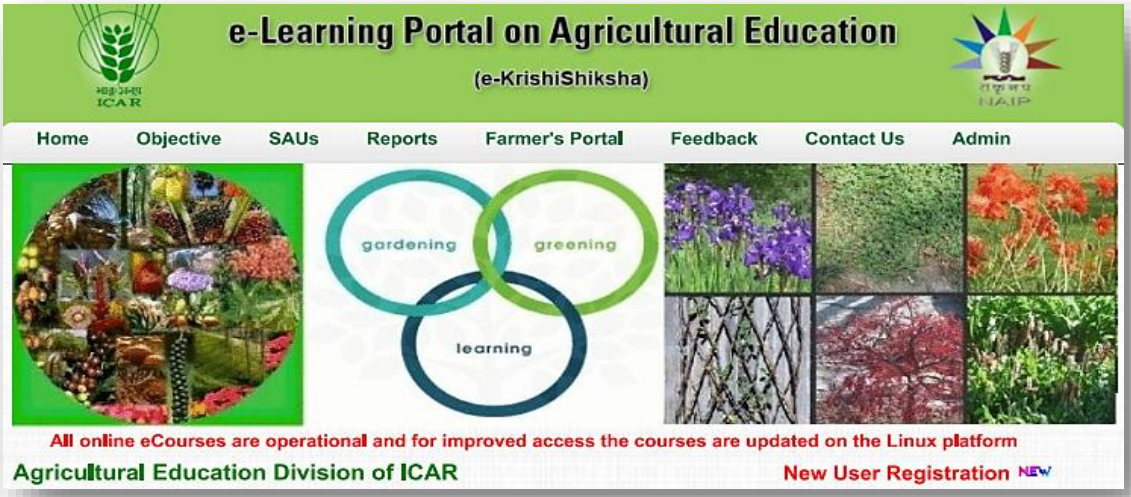
E-COURSE FOR BFSc DEGREE PROGRAMME

A total of 54 e-courses were created under the NAIP – ICAR project on development of e-courses for BFSc degree programme in collaboration with the College of Fisheries Mangalore. The following 27 e-courses were developed by the staff of the Fisheries College and Research Institute, Thoothukudi which are available online at www.elearnfish.net

Sl.No.	Name of the courses	Content Developers
1	Biology of Finfish and Shellfish	Dr. C.B.T. Rajagopalsamy & Dr. S. Benakappa
2	Ornamental Fish Production and Management	Dr.B.Ahilan & Dr.E.G.Jayaraj
3	Biochemical Techniques and Instrumentation	Dr.R.Jeya Shakila
4	Fundamentals of Microbiology	Dr. G. Sugumar & Dr. Indrani Karunasagar
5	Shellfish Breeding and Hatchery Management	Dr.J.Stephen Sampathkumar
6	Fisheries Economics	Dr. R.Jayaraman
7	Communication Skills	Dr.R.Santhakumar & Dr.V.G.Bhatt
8	Fisheries Extension Education	Dr. M. Nagoormeeran
9	Information and Communication Technology	Dr. N.V.Sujathkumar & Mrs.Kiran D souza
10	Rural Sociology	Dr.M.Nagoormeeran & Mrs.G.Arul Oli
11	Food Chemistry and Fish in Nutrition	Dr. G. Indira Jasmine & Mr. M.M.Maragal
12	Principles of Genetics and Breeding	Dr.K.Karal Marx
13	Freezing Technology	Dr. K. Rathnakumar & Mr. R.M. Prabhu
14	Principles of Aquaculture	Dr.A.Gopalakannan, Mr.K.S.Vijay Amritharaj & Dr.K.Ramesh
15	Fish Diseases and Management	Dr.K.Riji John
16	Biotechnology & Bioinformatics	Dr.K.Karal Marx & Dr.K.M.Shankar
17	Taxonomy of Finfish	Dr.P.Jawahar & Dr.H.N. Anjaneyappa
18	Inland Fisheries	Mr.N.Jayakumar
19	Physiology of Finfish and Shellfish	Dr.T.Francis & Dr.Mridula
20	Fish Population Dynamics and Stock Assessment	Dr. V.K.Venkataramani & Mr. N.Jayakumar
21	Oceanography	Mr.P.Chidambaram
22	Marine Biology	Dr.A.Srinivasan & Dr.A.T.Ramachandra Naik
23	Navigation and Seamanship	Dr.B.Sundaramoorthy
24	Disaster Management in Fisheries	Dr. N.V.Sujathkumar

25	Entrepreneurship Development and Communication skills	Dr.R.Senthiladeban, Dr.R. Santhakumar & Dr.K.Veerabhadran
26	Principles of Biochemistry	Dr.G.Indira Jasmine
27	Elementary Statistic	Mr.R.K.Ramkumar

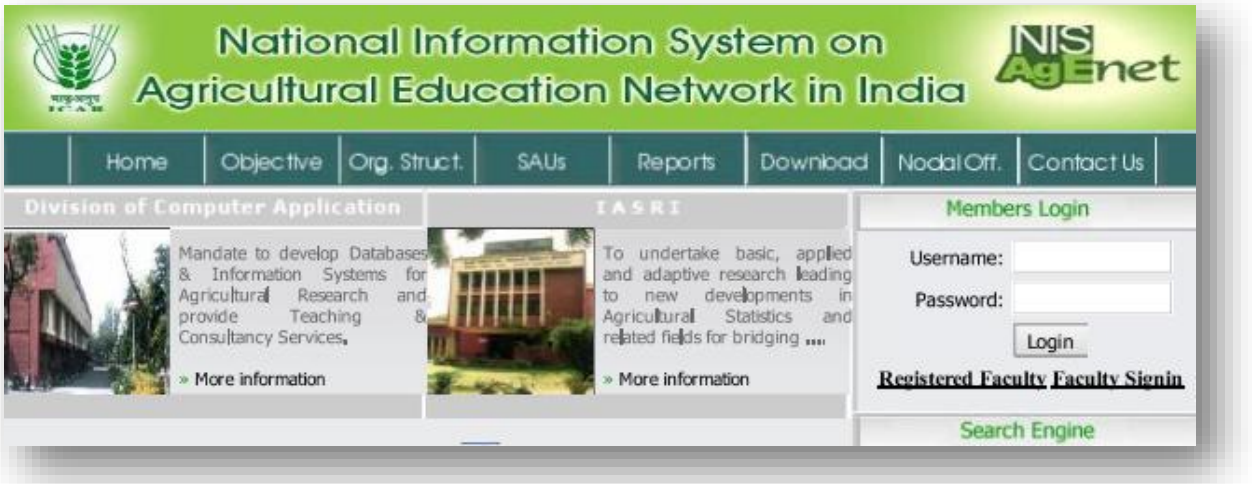




NATIONAL INFORMATION SYSTEM AGRICULTURAL EDUCATION NETWORK IN INDIA

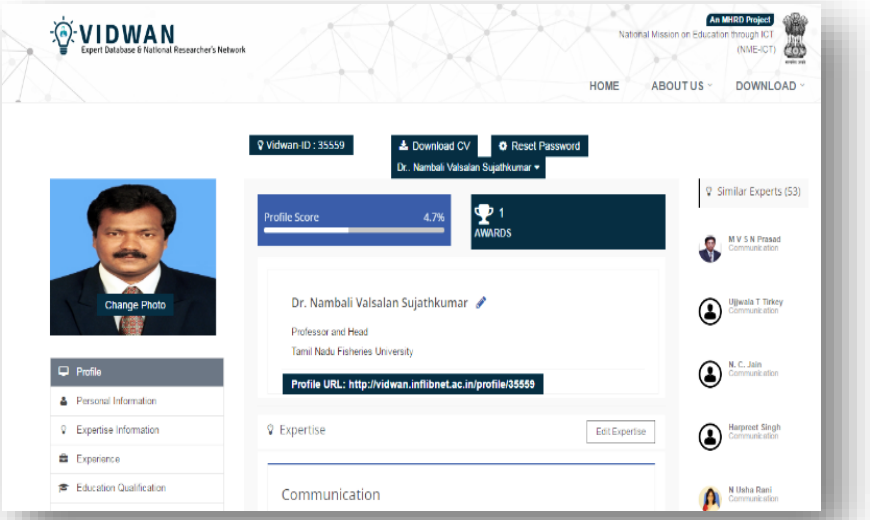
The infrastructure, budget, details of staff members, reports, etc., of the university and its constituent colleges / institutes are uploaded and also regularly updated in the National Information System Agricultural Education Network in India (**NISAGENET**),

ICAR, New Delhi so that the university information is available digitally to the students across India.



VIDWAN EXPERT DATABASE

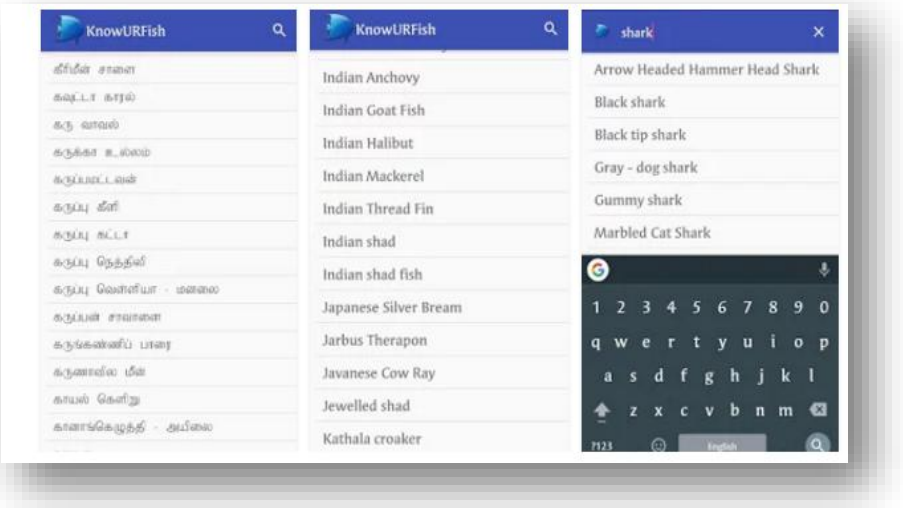
The biodata of TNFU teaching staff is being uploaded in the VIDWAN Expert Database & National Researcher's Network (National Mission on Education through ICT of Government of India), at



https://vidwan.inflibnet.ac.in/.

The Vidwan ID is required for submitting an external funded project.

KNOW URFISH ANDROID MOBILE APP



TNFU released "KnowURFish, a Mobile Android App, for the benefit of fisheries stakeholders which was developed by Centre for Fisheries Management, Planning and Policy, Chennai. This App gives information about the fishes available in Tamil Nadu coast with a web link to fishbase.org. Users can search for the names of fish both in English and Tamil. This App is available for free and can be download from the Google Play Store

AVAILABLE DIGITAL RESOURCES

i. Annual reports
ii. Audio CDs
iii. Conference and workshop reports / papers
iv. e-books
v. e-courses for BFSc degree programme
vi. e-databases
vii. e-journals
viii. e-reference source
ix. Extension reports
x. Faculty Publications
xi. Newsletters
xii. Meenvalakathir
xiii. Photographs
xiv. Research reports
xv. Video DVDs

DIGITALISATION OF LIBRARY RESOURCES

The library of the FC&RI, Thoothukudi is currently undertaking an ICAR funded programmes on Library Strengthening in Tamil Nadu Fisheries University under the Scheme of Strengthening and Development of Higher Agricultural Education in India for a sum of ₹ 66.00 lakhs. The digitization of M.F.Sc., and Ph.D., theses are being carried out and uploaded to KrishiKosh (ICAR Repositories) for access through online. Automation with KOHA (Integrated Library Management System (ILMS) is also installed in the Library. In addition to this, TNFU publications, staff publications, brochures, folders, etc., is being digitised and uploaded into the server available in the library. These digital resources can be accessed by students and staff using their internet captive portal password. The Consortium for e-Resources in Agriculture (CeRA) access is also provided over the internet captive portal.

DIGITAL LIBRARY SECURITY SYSTEM

To protect the digital resources of the library from various threats like computer virus, data loss, theft, etc., following security system is installed.

i. Anti-virus software
ii. RFID
iii. CCTV
iv. EM Security Gate



Security Gate

IMPACT OF THE LIBRARY

The library of Fisheries College and Research Institute, Thoothukudi support the students in their academic achievements and it is evidenced from the JRF position obtained by the students for their higher studies. The Indian Council of Agricultural Research (ICAR), New Delhi conducts AIEEA for admission to the Master degree program in Agriculture and allied sciences every year for 25% seats in Agriculture /Fisheries Universities. During this academic year (2015-16), a total of 13 students of Fisheries College and Research Institute, Thoothukudi have been qualified for the fellowship to pursue their Master of Fisheries Science degree programme which includes second rank in the All-India Entrance Examination (AIEEA-PG-2016) and first place in the reserved category at the All India level (ninth overall). The library is also fully supporting to staff for their digital way of teaching, research and extension programmes. The books, journals, periodicals, e-resources, etc., purchased in the library are being used for proposing schemes and projects in the areas of fisheries biotechnology, nutraceuticals, fish processing, aquaculture, fish genetics, fisheries engineering, fisheries extension, etc. In addition to this, many researchers from other universities and institutions are also regularly visiting the library for collection of digital references. The library is well equipped with computers to browse the e-journals and internet resources by the students and staff. The CCTV with DVR is available in the library for monitoring.

FUTURE DIGITAL INITIATIVES OF THE UNIVERSITY

E-THESIS SUBMISSION AND MANAGEMENT SYSTEM

An Electronic Thesis or E-thesis is simply the digital (electronic) representation of the student's thesis. Rather than printing the final thesis, the students will be able to convert the final version to a PDF file and submit that file. Every year, on the eve or on the day of the thesis submission deadline, the students face the hectic and most traumatic experience of their university time: Printing and binding two copies of their thesis for submission before the deadline. There are limited facilities around the campus for printing

and binding thesis in a few days. Despite all the planning that students make, many submit their hardcopy thesis reports on the last day and a few minutes before the deadline. Some students also miss the submission deadline, for various reasons, and are penalized by submitting the thesis either in extended semester or re-registering the semester.

The proposed solution for students is an E-thesis submission system that eliminates the hassle of hardcopy (printed & bound) submission. Students will be able to reduce or eliminate the costs of printing and binding. Using less paper implies saving valuable trees around us. The e-thesis management system enables the registry (a type of admin) of the faculty to automatically acknowledge receipt of the thesis submitted.

In due time, the Controller of Examinations is granted permission to access list of e-thesis submitted by their students on the system. Then, COE allocates an examiner to each thesis and the system notifies the examiner to proceed with e-thesis report assessment. By a given deadline, the examiner will submit their evaluation of the student's report on the system for further action.

ONLINE STUDENT ATTENDANCE MANAGEMENT SYSTEM

Manual control of attendance is time consuming and not effective. The online student attendance system is intended to produce an automated solution for attendance management. Using this online system, daily attendance of students in colleges can be easily managed. Also, teachers can manage the grade of each student in an efficient manner. This online system allows parents to track the progress of their children using the online facility.

The course teachers can manage attendance using computerized data management so that paperwork could be eliminated. Generate attendance reports any time which allows teachers to know a student is eligible to attend the exams or not.

Students as well as parents can track grades effortlessly and the students / parents could provide the reason for absence.

SMS- BASED FISHERIES INFORMATION SYSTEM

In this era, where everything is going digital, the need for rapid communication is necessary and in fact inevitable. However, ensuring the timely and reliable dissemination of the information, as it becomes available, to those concerned is also of prime importance. Because of the very high penetration of mobile phones in societies, particularly in fisheries societies, fisheries stakeholders can be reached anytime anywhere.

The SMS-based notification system aims to respond to the need of the university in terms of rapid notification to various stakeholders of important events using mobile technologies. The events needing notification might include things like training, seminar, conference details, weather warnings and other natural disaster warnings, exam date notification, results notification, urgent meeting notifications, etc.

FINANCE MANAGEMENT SYSTEM

The Financial Management System (FMS) is a key component of Systematics' integrated software, providing a flexible and fully automated financial accounting system. A critical management information is provided through responsibility centre reporting, budgeting and forecasting, chronological and statistical analysis, and cost allocation.

The Financial Management System is a flexible, user-oriented tool that includes analysis capabilities and provides complete statements of condition and income/expense reports, grouped and consolidated.

The system is a true management tool, as well as a centralized, comprehensive accounting system that includes budgeting, cost allocation and account reconciliation to

aid management in making decisions about the use and control of an organization's funds and hence everything can be digitally managed.

TNFU MOBILE APP FOR FISHERIES EDUCATION AND INFORMATION SYSTEM

At present, abundant data on fisheries are necessary for science-based decision making. Currently the information is needed about the inland, brackishwater, marine resources, its usage and policies. The mobile app for fisheries education and information system, which will be developed by this university for the students, researchers, fishermen, fish buyers, entrepreneurs and organizations would certainly help them to understand the issues in fisheries sustainability and management of fisheries resources for the future use and also to understand the current scenario of fisheries and how to sustain the protein rich cheaper food for future generations. The mobile application will be designed for various mobile platforms such as android, windows, apple, etc. A separate website or subdomain will be created in which various fisheries education and information system will be made available and a link will also be provided to download the mobile app freely. A Fisheries Knowledge Base (FKB) programme will also be designed in which students, researchers, scientists, fishermen, fisherwomen, aqua farmers, entrepreneur, etc., can register their names, mobile numbers, email IDs, etc., to get information on fisheries from the Fisheries Knowledge Base automatically.





काशी हिन्दू विश्वविद्यालय

BANARAS HINDU UNIVERSITY

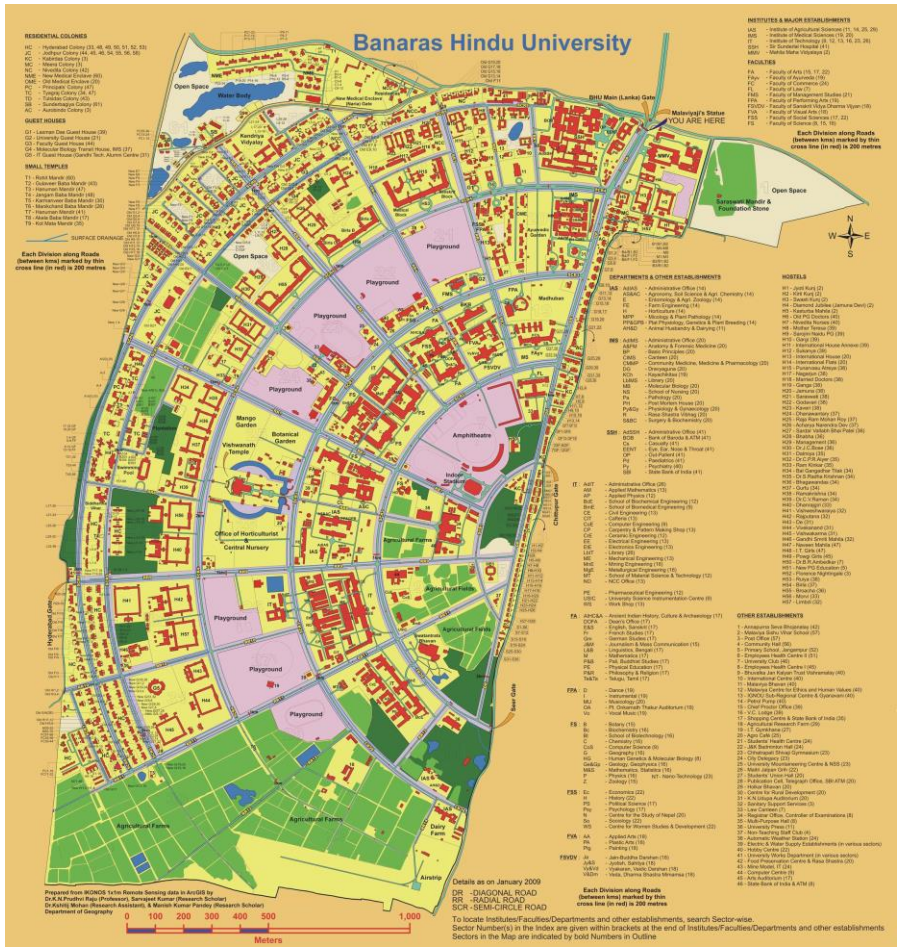
Digital and Other Initiatives

A Brief Report

BHU

capital of knowledge

BHU Main Campus, Varanasi (1360 acres)



BHU South Campus, Mirzapur (2700 acres)



BHU comprises of 5 institutes, 16 faculties and 134 departments spread over 3 campus.

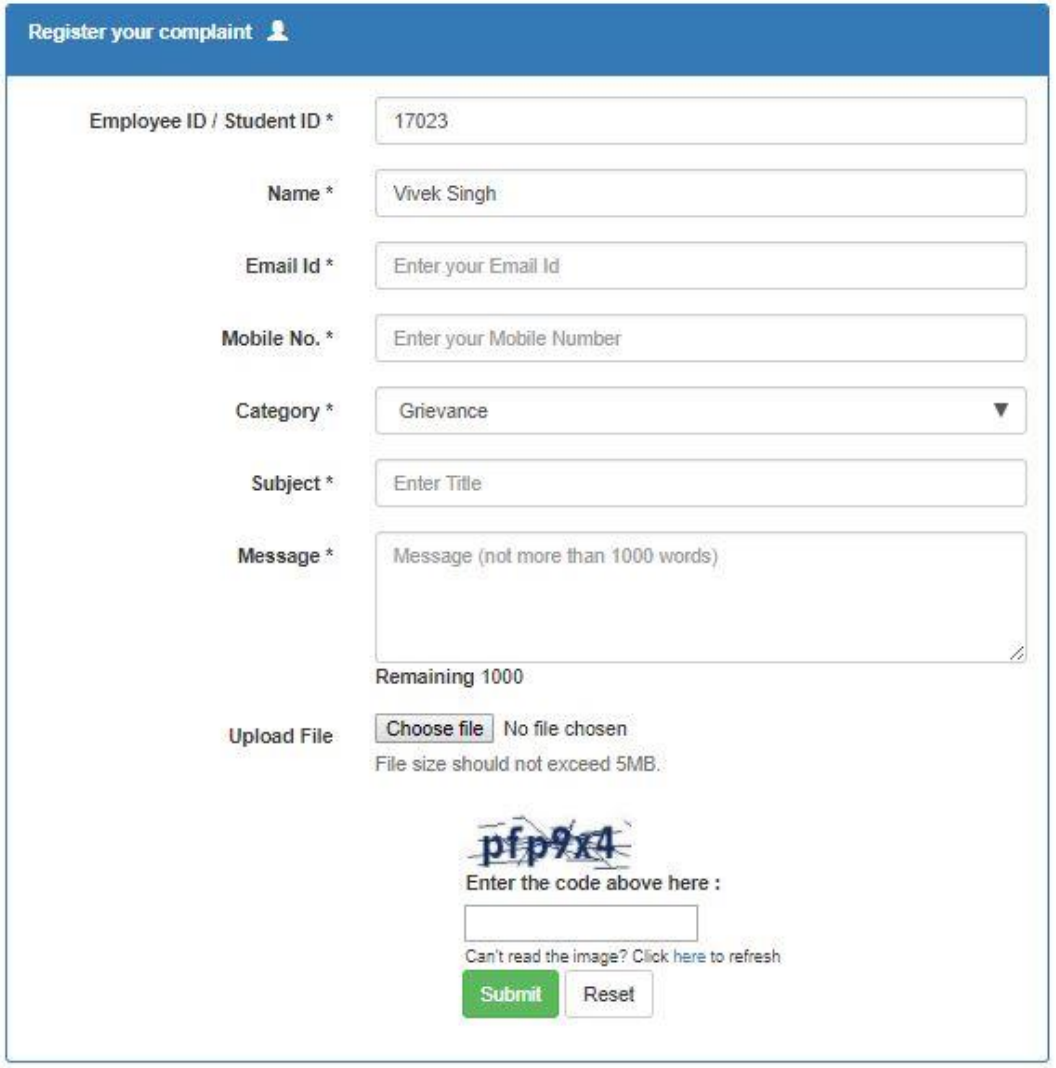
Outline

- Digital Initiatives
- Innovative Centres
- Development of Curricula and Vocational Training
- Promotion of Research & Innovation
- Student-centric Initiatives
- Employee-centric Initiatives
- Extension & Outreach Activities
- Community Development Initiatives

Major Digital Initiatives

Automation & E-Governance

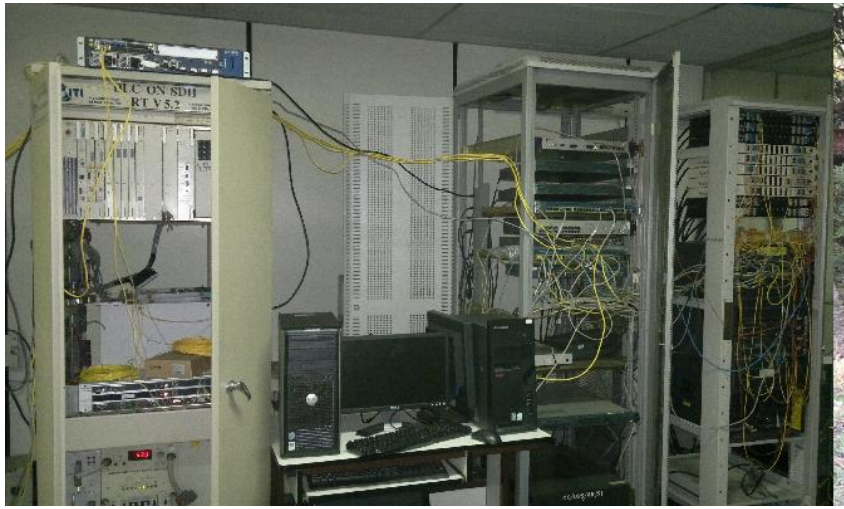
- Emphasis on **Maximum use of IT in administration**.
- ***'Write to Administration'* Portal**.
- **Online Faculty Recruitment System**.
- **E-Procurement**.
- **Automation of Entrance & Regular Examination Procedures**.
- **Online Counselling & Admission**.
- **Digitization of Permanent Records of the University**- Work in Progress.



Major Digital Initiatives

Creation of Enabling IT Infrastructure

- New **Campus-wide WiFi-enabled LAN**- in final stages of execution.
- **Video Conferencing Systems**.
- **EDUROAM Services**- Started.
- Creation of a **Central Data Centre**- Initiated.
- **IP-based Telephony & Surveillance**- Planned.

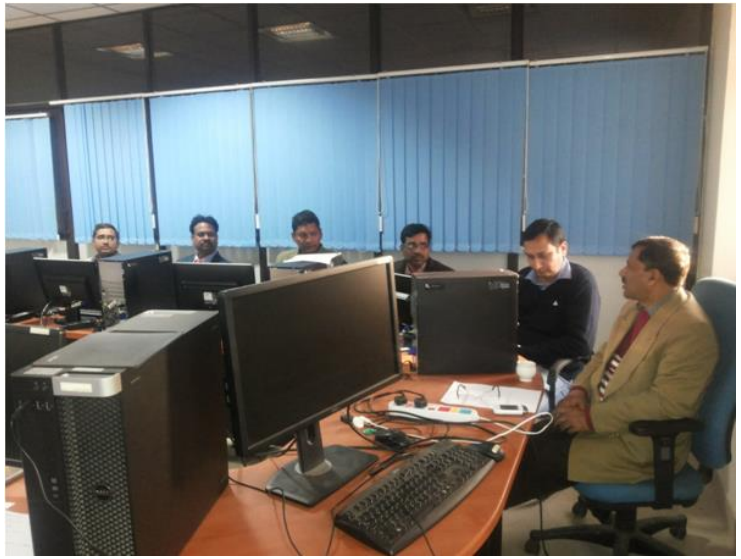




Major Digital Initiatives

IT-based Teaching, Learning & Evaluation Activities

- **Audio-Visual Recording Studio**.
- **Online Courses**- About 500 lectures in Agriculture uploaded online, Many others in other faculties in pipeline.
- **Digital Classrooms**- functional in various departments.
- **MOOCs**- Digital content for innovative courses like Statistical Physics, Religion, Conflict & Globalization etc. under development.
- Smart Learning Systems & BYOD model- initiated.



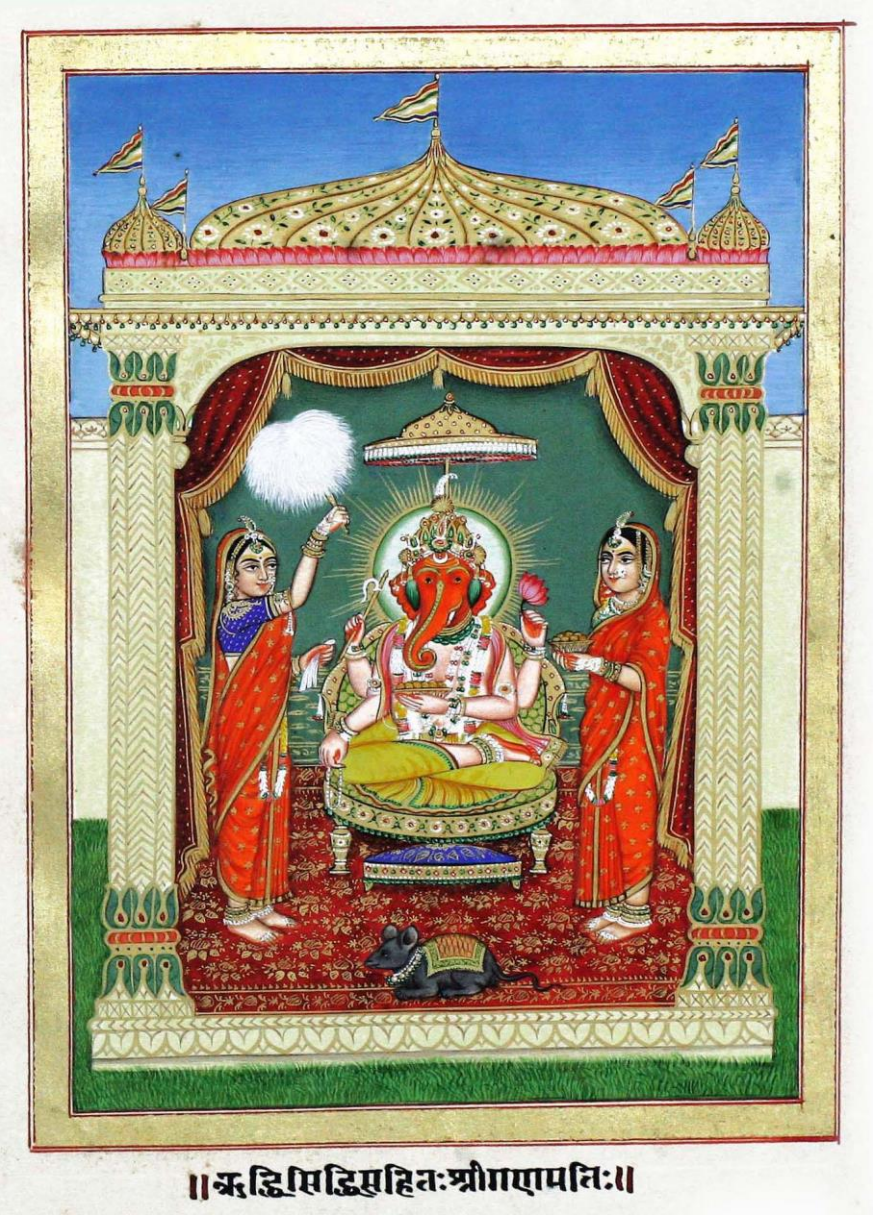


Major Digital Initiatives

Digital Library, E-Manuscripts

- Access to online resources for faculty & students on ***Anytime-Anywhere-Any Device basis***.
- **Subscription to E-journals & Digital libraries-** All major journals, digital libraries and databases subscribed and disseminated.
- **Digitization of Rare Manuscripts** – 7227 rare manuscripts digitized.
- **Digitization of Ph.D. Thesis**- More than 5,000 Ph.D. thesis digitized.
- **Census Data Centre**.
- **National Digital Library Project**- Initiated.

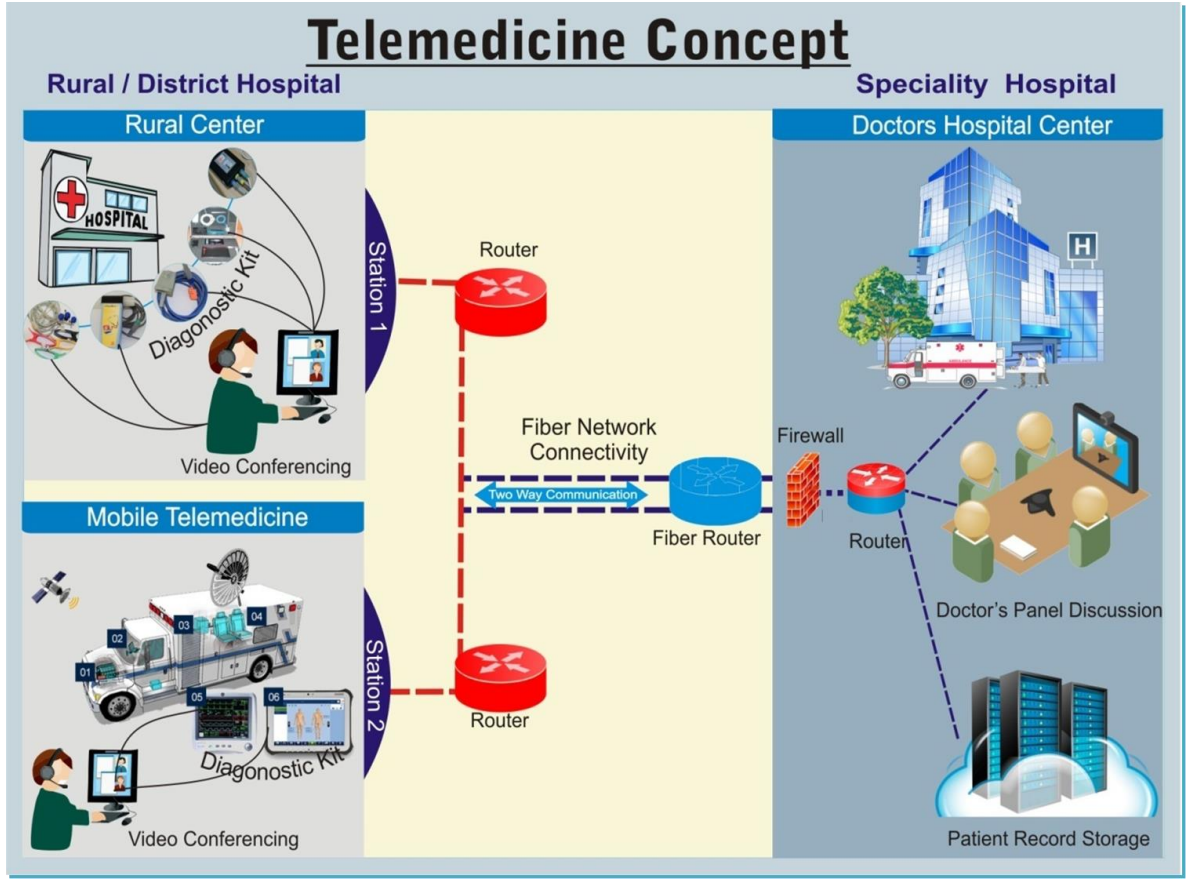
Srimad Bhagwat Gita manuscript digitized



Major Digital Initiatives

HMIS & Telemedicine

- ***Hospital Management Information System (HMIS)***.
- ***Telemedicine Project***- Pilot Test done. Regional Resource Centre in progress.
- These new technological initiatives will augment & strengthen outreach and community development activities of medical sciences faculty, particularly in rural areas.



Innovative Centres

- ***Bharat Adhyayan Kendra-*** study of ancient Indian knowledge, culture, literature, music, science & technology and establish links with modern knowledge and their applications to current problems.
- ***Mahamana Malaviya Research Centre for Ganga River Development & Water Resources Management***.
- **Centre for Translation Studies.**
- **Centre for Inter-Cultural Studies.**
- **Malaviya Moolya Anusheelan Kendra.**
- **Centre for Study of Vedic Sciences.**
- **Malaviya Centre for Peace Research.**
- **Centre for the Study of Social Exclusion and Inclusive Policy.**
- **Centre for Women's Studies and Development.**
- **Centre for Integrated Rural Development and Management.**

Continued.

- **Interdisciplinary School of Life Sciences-** comprises of 7 departments of Institute of Science.
- **Mahamana Malaviya Cancer Hospital & Research Centre** .
- **Centenary Super-speciality Complex, Institute of Medical Sciences.**
- **Centre of Excellence in HIV Care** at Institute of Medical Sciences.
- **Geriatric Centre**
- **Advanced Centre for Traditional Genomic Medicine**.
- ***Central Discovery Centre***- work in Progress.

Curriculum Development & Vocational Training

- Semester system and '**Choice Based Credit System**' on a limited scale (intra Faculty) followed.
- **60 innovative, interdisciplinary and job oriented programs** (Special Courses of Study) introduced.
- Curricula are periodically restructured (~3/5 years) to include most recent researches and to ensure gainful employment.
- **Faculty of Professional and Multidisciplinary Studies** proposed at South Campus, BHU.

Promotion of Research & Innovation

- **Seed Money** of Rs. 3-6 Lacs for new faculty members.
- **Design & Innovation Centre**.
- **MoUs** – More than 50 MOUs with various institutions. Some of them include: University of Buffalo, University of Maryland, Stanford University, University of Nebraska, Karlstad University, and Peace Research Institute, Oslo.
- **BHU is member of BRICS NU:** impetus to research, exchange of faculty/ students.



Laboratory Infrastructure at the Centre for Food Science and Technology

Student Centric Initiatives

- ***DDU Kaushal Kendra***- The kendra runs UG (B.Voc.) & PG (M.Voc.) courses in the disciplines of (i) Food Processing & Management, (ii) Retail Management, (iii) Logistics Management, (iv) Hospitality and Tourism Management.
- ***Career Development Centre***- soft skill development - Communication skills, leadership qualities, personality development, CV writing, mock interviews, group discussions, basic computer literacy and language learning.
- ***Spoken Tutorial Project***- started in collaboration with IIT Bombay, initially for Computing courses.
- **Internal Complaints Committee for Gender Based Complaints**.
- **Barrier-free facilities to the Differently Abled** in almost all the buildings.
- **IT Skill training to engineering graduates of various colleges**.

Continued.

Creating eco system for overall personality development of students:

- **Malaviya Moolya Anusheelan Kendra** – promoting value-based education as part of curricula.
- **Malaviya Bhawan** - weekly Gita discourse for the spiritual and personality development of students. Yoga classes are organized for students.
- **Effective mentoring and support** - Well structured and organized guidance and counseling system in place - Employment information and Guidance Bureau, Career Guidance and Counselling Cell, University Placement and Coordination Cell, Stress Management and Counselling Centre, Mentorship Scheme.
- **Financial support to students** -Earn while Learn scheme. Fee-waivers for some needy & meritorious students.
- **Health welfare of students** - Fully equipped Student Health Care Complex operating a unique contributory Student Health Welfare Scheme.
- **Other amenities** - 70 hostels, modern sports facilities, Rich Sayaji Rao Gaekwad Central Library, a high-tech Cyber Library, Hobby Centre, Flying Club, Mountaineering Centre, transport facility, Maitri Jalpan Grih, NCC and NSS, 4 international hostels for foreign students.

Employee Centric Initiatives

- **'Write To Administration' Portal** to allow employees express their grievances and also advance suggestions to the administration.
- **Grievances Mechanism and Monitoring Cell**.
- **Steps to resolve all disputes early so as to minimize litigation**.
- **Equal Opportunity Cell**.
- **Anti-Discrimination Officer** has also been appointed.
- An **Intranet portal** to provide information on various rules, regulations & proforma- functional. Work in progress for design of a Mobile App for BHU.
- Mandatory Disclosure of all important information on the Website (such as Rules & regulations, EC agenda & minutes).
- New building for **Employee Health Centre** with new facilities added.

Extension & Outreach

Extension Activities in Agriculture

- **Extension and community development activities are Part of the Curriculum & Research.**
- **IASc developed a number of cultivars** of wheat, rice, mungbean, maize, pea, lentil and oilseeds which are popular among the farmers of the region.
- ***From Lab to Land***- involves distribution of seeds, training & support to farmers. BHU collects data and farmers keep the produce.
- **Training & Expert Lectures in Plant and Animal Sciences through electronic media and video-conferencing.**
- ***Kisan Mela*** is being organized on a regular basis.
- **Veterinary camps**.





Extension & Outreach

Extension Activities in Medical Science

- The Institute of Medical Sciences (IMS) consists of streams of **Modern Medicine, Ayurveda and Dental Science**.
- It has been providing **quality health services to people of this region**. The Institute's Sir Sundar Lal Hospital and Trauma Centre with a combined capacity of nearly 1600 beds efficiently cater to the tertiary healthcare needs of the vast population of Eastern UP, parts of Bihar, Madhya Pradesh, Jharkhand, Chattisgarh and adjoining Nepal on affordable cost.
- **Nearly 15 lac patients** register themselves in the OPD of the Hospital, Trauma Centre and its associated health centres annually with nearly 100% bed occupancy round the year.
- The Institute **regularly organizes *health mela* and runs rural health centres**.





Extension & Outreach

Extension Activities in Visual Arts

- **Faculty of Visual Arts- Support to traditional handicraft industry.**
- The City is known for its traditional handicrafts, for example, ‘Woven Silk’, ‘Banarasi Saree’, ‘Brocade’ and ‘Wooden Toys’, to name a few. Its neighboring district is known for its ‘handmade carpet’ industry.
- **The Faculty of Visual Arts of the University runs three certificate level skill development programs for the artisans of this region** in the area of ‘**Textile Design**’, ‘**Dyeing and Printing**’ and ‘**Handloom Weaving and Handicraft**’. The Faculty also extends design support to the local saree industry.





Unnat Bharat Abhiyan

Community Development Activities

- Rainwater Harvesting
- Map & Demographics of Villages
- Sanskriti & Craft Profile of villages
- Diet & Nutrition
- Cleanliness & Sanitation
- Literacy
- Social Empowerment





Samarth Gram Abhiyan

(An unique initiative of BHU in 100 Villages)

Community Development

- **Family Survey** & ***Gramin Mitra*** program.
- **Stitching, Embroidery and other skill training to girls.**
- **Organic Farming**.
- **Seed Distribution and Plantation**.
- ***Rasoi Vatika.***
- ***Aarogya Gram Abhiyan.***
- ***Legal Aid.***
- ***Women Education.***
- ***Awareness towards National Programs eg. Jan Dhan Yojna, PMGRY, Swachha Bharat Abhiyan, Ek Bharat Shreshta Bharat, Ujjawal Yojna, Atal Pension Yojna, PMAY.***












Monday, 22


ew Meeting
2016


Staging of the play
"Chanakya"
under
Rashtriya Sanskriti Mahotsav 2016
and
Laying of Foundation Stone of
Mahamana Pt. Madan Mohan Malaviya Cancer Center, BHU and
Centenary Super Speciality
राष्ट्रीय संस्कृति
के अर्न्तगत
'चाण
का मं
एवं
महामना पं. मदन मोहन मालवीय
शताब्दी सुपर स्पेशि
चिकित्सा विज्ञा









काशी हिन्दू विश्वविद्यालय

BANARAS HINDU UNIVERSITY

Thank You

BHU

capital of knowledge

स्वच्छ भारत

एक कदम स्वच्छता की ओर

UNIVERSITY OF ALLAHABAD

A Brief Write-up on Initiatives for Digitization undertaken by the University of Allahabad

Digital revolution is bringing in sweeping changes in the Higher Education landscape in the country. The University of Allahabad has undertaken various initiatives in this field under the direction of the Ministry of Human Resource Development (MHRD), Government of India. These initiatives aim to address twin concerns of enhancing access and quality of higher education.

Following is the brief write-up on several initiatives for digitization undertaken by the University of Allahabad:

Digitization Initiatives in the field of Academics:

- **Wi-fi and LAN Enabled Campus:** Academic Units of the University and hostels Wi-Fi and LAN Enabled under the National Knowledge Network (NKN) and Digital India Initiative of Government of India.
- **ONLINE Entrance Test:** University has initiated ONLINE Entrance Test since 2016-17 academic session to increase catchment and outreach.
- **National Digital Library:** E-Library has been initiated. More than 29,000 books have been digitized; e-Shodh-Singhu, Shodh-Ganga and Shodh-Gangotri and anti-plagiarism software have been made available to all faculty and students in accordance with UGC Minimum Standards and Procedure for award of M.Phil./ Ph.d. Degree Regulation 2009; ONLINE Books and Research journals through INFLIBNET though UGC-Infonet Digital Library Consortium; e-Pathshala Portal has been launched in the University library.
- **MOOCs and SWAYAM Platform:**
- **Smart Classrooms using Audio-Visual Facilities:** University has set up smart classroom with audio-visual facilities so as to make teaching and learning more practical based and effective.
- **Virtual Labs:** There are virtual labs in place, esp. in various centres of the Science Faculty like the K.B. Centre of Atmospheric and Ocanic Sciences, Physics, Bio-informatics, M.N. Saha Centre for Space Studies, Nanotechnology Application Centre and so on.
- **Dedicated PG Courses on Digitization:** University offers PG courses in E-commerce and IT in different centre, particularly in the Faculty of Commerce

Digitization Initiatives in the field of Finance:

- **ONLINE Fee:** University has initiated complete ONLINE submission of fees from the 2017-18 session.
- **Cashless Financial Transactions**: the University has moved to complete cashless financial transaction and VISAKA procedure are being followed.
- **E-Procurement:** E-Procurement of Goods & Service through E-Tendering and E-Publishing in accordance with GFR 2017 is being implemented since 2015 onwards in the University to ensure effective and transparent delivery of works.
- **Skilling the Unskilled:** Training programme for procurement of goods and service through Government Electronic Market (GeM) to the employees of the University are being carried out for better governance.
- **Electronic Maintenance of Expenditure:** Daily Statement of Expenditure is digitally maintained and placed before the Vice-Chancellor for quick overview.

Digitization Initiatives in the field of Administration:

- **ONLINE Recruitment:** Recruitment process has been made ONLINE for both teaching and non-teaching vacancies.
- **Electronic Surveillance:** CCTV Surveillance System has been put in place, which is linked to Digital India Initiative of the Government of India.
- **ONLINE Services:** All forms / applications / formats/ proforma etc related to faculty, students, and employees are made available ONLINE so as to enable speedy disposal.
- **E-governance:** Registry and its record keeping are being done fully digitized.
- National Academic Depository: NAD has been set up in the University to facilitate issuance, storage and verification of academic awards. A dedicated NAD Nodal Officer has been appointed to implements its mandate effectively.
- **Up-dated Website:** University Website has re-done it official Website for better outreach and access to make University Web-enabled.

Digital Initiatives by Aligarh Muslim University

Aligarh Muslim University has taken many initiatives for the Digitization and Computerization of the University System in line with the Digital Drive of India. Most of the work is done using its internal resources and the contribution of volunteers the volunteers of different faculties. The main emphasis is give to the Management and Processing of the Data using open source software. Recently some work has been started by individual teachers for development of MOOCs and use of Moodle Open source software for the students and teachers interaction.

Some detail of the work done is as follows:

1. Development of Open Source ERP for University Information Management

It is named as AIMS (Academic Information Management System). *We are calling it as AMU Information Management System.* It is developed by **Software Development Unit of AMU** where few volunteer developers are working and the system is working perfectly. Thus we are in the process of saving 6-7 crore of rupees as compared to SAP system which only student's Module costs 3.5 crore.

It's a Modular System where different Modules can be added as per need. Many Modules have been developed and others are in the process of development for e-Governance of the University in an attempt to develop fully automated paperless system. They are being implemented in a phased manner.

Since all activities of the University are students centric so special emphasis is given to record their maximum data to generate the desired information related to them. Thus Student's and HR modules are given priority. An overview of Student's Module is give in a schematic diagram in **Appendix-I**

The important feature of the system is its capability to keep records of all Students and Staff and their chronology. Thus complete Life Cycles of Students and Staff information are maintained. The System has an excellent Traditional and Customized Report Generation Facility along with Statistical Information. However, they are being upgraded regularly as per demand by the users.

*Please see **Appendix-I** for more information.*

2. Digital Initiatives of Office of Controller of Examination (& Admission)

The Admission, Examination, Award of Degree/Certificates and related payments are the main features of Controller's Office and require a lot of man power, skill and in time deliverables. Many modules are independently have been developed over a period of time. They are now being brought under one umbrella of AIMS and thus improved the management a lot.

*Please see **Appendix-II** for more information.*

3. Digitization by Maulana Azad Library

Maulana Azad Library of AMU has digitized 9395Theses, & Dissertations, 9957 rare Books and 8100 manuscripts and are available online. The details are as follows:

a) AMU has digitized its 9395 Theses/Dissertations (submitted before 2009 in the university) and connected to Sodhganga to host and maintain the digital repository of Indian Electronic Theses and Dissertations accessible to all the institutions and universities.
b) AMU has created its own Knowledge Repository of electronic theses and dissertations using E-Prints open source software.
c) M.A. Library has digitized 9957 rare books free from copyrights under the CDAC project and linked with Library's OPAC in campus wide network.
d) Approximately 8100 in 9.5 lakhs folios of manuscripts have been digitized.
e) The MA Library has digitized all the Minutes of the Academic Council, Executive Council and AMU Court
f) Some contribution has been done to ePG Pathshala course contents of the MHRD

4. Faculty of Social Science Cyber Library

The Faculty of Social Science has developed Cyber Library with an ISO 9001:2008 certification brings together all open access e-resources in form of e-books, e-journals, video lectures, subject gateways, databases, useful websites etc. in the field of Social Sciences at one place, so that the students, research scholars and faculty members belonging to various disciplines of social sciences across the globe may make optimum use of them.

It is Registered in: Limca Book of Records

The link is : http://www.socsccybraryamu.ac.in

5. Future Works

Basic work has been started

a. Development of MOOCs in all disciplines and Apps
b. Digitization of Old Records and their Retrieval system.
c. Online Ticketing System for Students' Services and Grievances
d. Implementation of RFID Tags in Degree/ Certificates for online verification (ready to be implemented next year)
e. **Android Phone Electronic** based handy devices (already tested) will be used for attendance, photography and Biometric of candidates in the Examination Halls. A secured mobile App will be developed
f. The connectivity of AIMS system will be extended to all sections/departments/offices of the University as well as individual students and staff for the real time data entry/updating.
g. **Strengthening of RTI Cell** / Call Centres to avoid better Services and earn goodwill as a part of **Vision 2020.**
h. Collaboration with NAD (National Academic Depository) for Degree/Certificate Data.
i. More rare books are to be digitized.

j. Digitization of rare Gazettes.
k. Approximately 8000 remaining manuscripts are to be digitized by M.A. Library.

Appendix-I

AIMS (AMU Information Management System)- for AMU

Or

AIMS (Academic Information Management System)- for Others

AIMS has been designed and developed to cater the need of Database Management of Aligarh Muslim University. The standard practices of the University have been translated in this mini ERP system. Since all activities of the University are students centric so special emphasis is given to record their maximum data to generate the desired information related to them. There are many modules in this system but their use is restricted through the privileges as per their official capacities.

The important feature of the system is its capability to keep records of all Students and Staff and their chronology. The system also keeps records of all User Activities including the date, time and IP used to access and make changes of the records. Thus complete Life Cycles of Students and Staff information are maintained, provided the data is regularly and in time updated by the respective stakeholders. The System has an excellent Traditional and Customized Report Generation Facility along with Statistical Information. However, they are being upgraded regularly as per demand by the users.

Modules

There are many modules in this system developed and designed according to the current practices in AMU. However, for general users only following 02 basic modules are offered, that is, 1. Students Module, 2.Staff Module (HR Module).

The 3rd Module News & Updates is also available to general users and all visitors. It contains news, notices, circulars, Conference & Workshops and other Events detail.

Student's Module

Student's Module has all functionality from student's admission to the course completion including accommodation. It can be used to manage all other activities of the students in this period. Some of them are as follows:

1. Personal Profile
2. Academic Records
3. Accommodation
4. Books
5. Hospital Visits
6. Extra Curricular Activities
7. Hobbies
8. Disciplinary Actions
9. Post Held

Students Module was started on 19-08-2013 and has data since session 2011-

Staff's Module

Staff Module can also maintain the Life Cycle of Staff and other related activities from their appointment till their association, in any form, with the University. Some of the related activities are as follows:

1. Personal Profile
2. Academic Records
3. Accommodation
4. Books
5. Hospital Visits
6. Extra Curricular Activities
7. Hobbies
8. Disciplinary Actions
9. Salary Records
10. Service Details
11. Designations
12. Posts Held
13. Courses Taught
14. Supervision
15. Publications
16. Projects etc.

Though the Staff Module was available since the very beginning but it has been opened recently for users after

12. The users can prepare almost all types of Reports and List required by them.

addition of more functionality

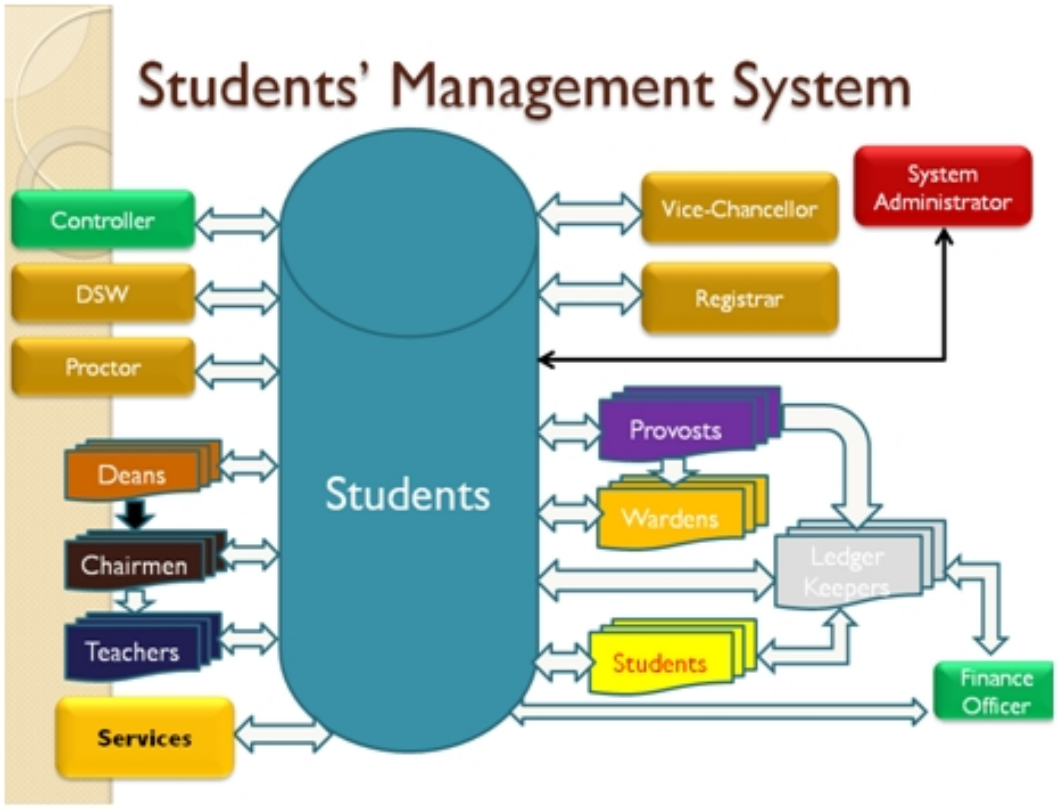
Privileges: Students by themselves have only very limited privileges. They can see their data but cannot update it. They can only submit data and request for correction, if any. They can also lodge their grievances, if needed. The concerned office will take care of their requests.

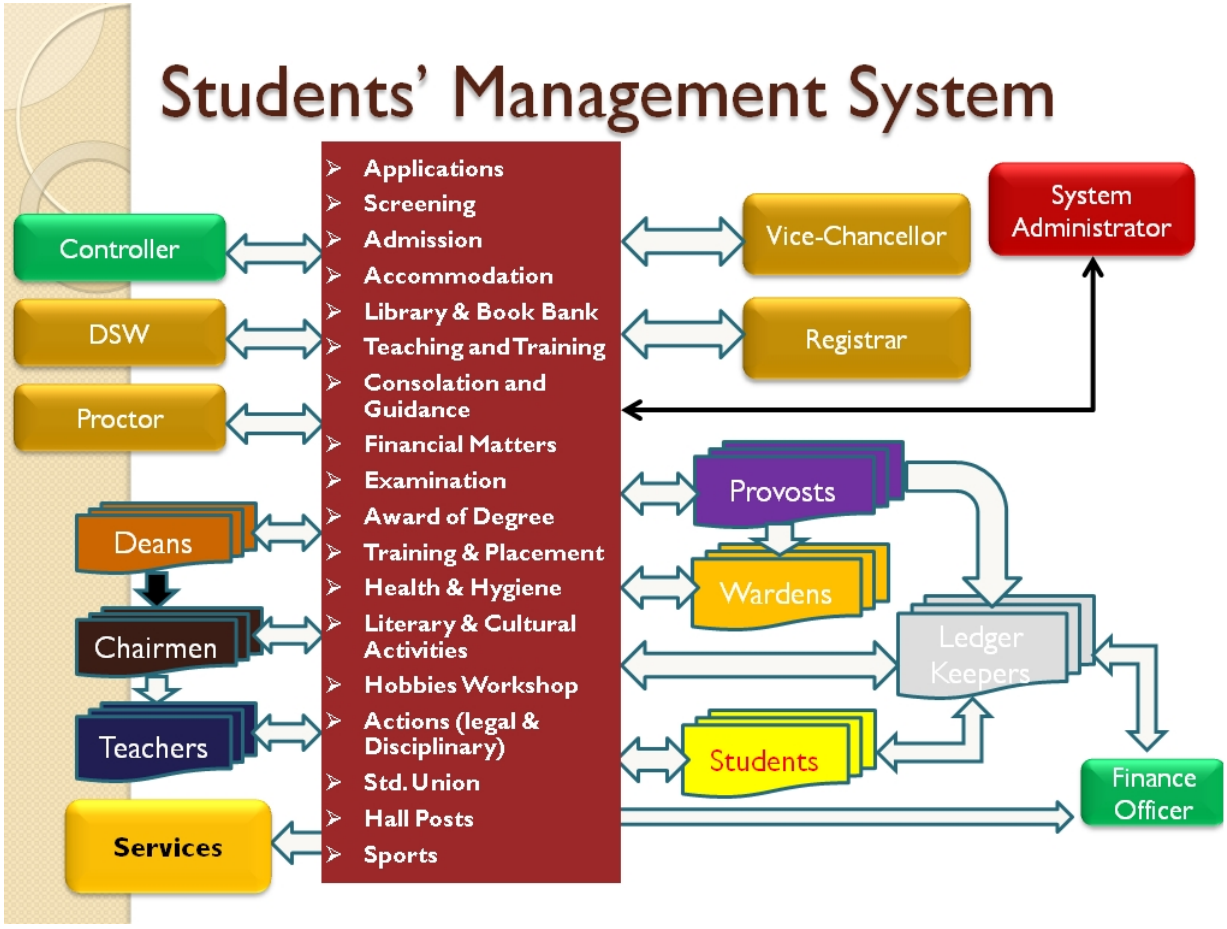
Privileges: Staff members are working in different capacities and they have different privileges according to their status as Managers and Executives. Thus every one can execute as per privileges assigned to them. General users can directly correct their personal data, of course after logging in the system.

Reports

At present following reports are available in Students\' Module and more will be added on demand by the users:

1. Students General- It the list of all students of your hall/faculty/department as per privileges assigned to the user. The list contains (a) Personal Particulars, (b) Academics and (c) Accommodation details. The link on the right side of each listed student can show these three details separately. It has search facility on all listed items.
2. Statistics- It displays the number of ALL students in the database of the current session in a tabular form showing faculties as rows and halls as columns. Soon other Tabs will be added to display SELECTED list of students such as state, district, category wise etc.
3. Graphs- It is displays the above list of students in a graphical manner.
4. Print ID Card- It provides the PDF file and ready to be printed as ID Card. It may be used as a temporary card at the time of admission.
5. Custom Report- This is the most important components of Reports. Two reports are provided. They are: (a) with photo (as web page) (b) without photo (as CSV file, can be opened MS-Excel or any other spreadsheet software). Two columns are provided for report options. In left column the user can select the items needed whereas in the right column filters can be selected. By default filter is fixed on your hall/hostel/ faculty etc as per status of the user so that only relevant data can be downloaded.


Students' Management System
Controller
DSW
Proctor
Deans
Chairmen
Teachers
Services
Students
Vice-Chancellor
Registrar
System Administrator
Provosts
Wardens
Ledger Keepers
Students
Finance Officer


Students' Management System
Applications
Screening
Admission
Accommodation
Library & Book Bank
Teaching and Training
Consolation and Guidance
Financial Matters
Examination
Award of Degree
Training & Placement
Health & Hygiene
Literary & Cultural Activities
Hobbies Workshop
Actions (legal & Disciplinary)
Std. Union
Hall Posts
Sports
Controller
DSW
Proctor
Deans
Chairmen
Teachers
Services
Vice-Chancellor
Registrar
System Administrator
Provosts
Wardens
Ledger Keepers
Students
Finance Officer

Appendix-II

Highlights of the work done in Controller's Office:

1. Development of New Online Application Forms-
    - **Students' Portal for Application** for Admission to different courses as well as to monitoring their status of Application, Payments, Selection etc.- ***for Compliance of UGC*** by 31.3.2016
    - **Online Application Fee Payment -** Integration of Payment Gateway for Application Forms
    - **Single Applicant's Control Panel** for Multiple Applications and Monitoring of status of applications, payments, Admit Cards etc.

2. **Online Reporting** of **Key Discrepancies and Report Compilation**-
   Developed Online Module for reporting of online Key Discrepancies and reduced the practice of bulk printing for distribution to the experts for finalization of keys of question papers. (For example in MBBS Test of 2015-16 alone, 7000 papers sheets were printed for this purpose).

3. **Competitive Examination Tests**-
    - OMR sheets have been modified to suit the need of AMU
    - Admit Cards are provided with Bar Codes for their Scanning in Examination Hall (The Electronic Module has been tested in real time for MD/MS Test on trial basis using hand held scanner and laptop)
4. **Android Phone based Electronic** device has been developed and Tested for Secured Real Time Data Capturing (photo, finger print, barcodes of Admit Card & OMR) of Examinees in the Examination Hall and Transmission to Server. It is in the process of customization and miniaturization.

5. **Processing of Admission Results**-
    - Developed Dual Processing System using **Visual FoxPro** as well as **PHP-MySql** (open source) to minimize errors and to be independent of Licence based software rather increase dependency on Open Source Software.
    - Training of Technical Staff for the enhancement of the efficiency of the system as well as its sustainability to avoid dependency on any person concerned.
    - Utilization of Single Database for all processes to make it reproducible.

6. **Result Declaration**-
    - More Transparent Result Declarations System
    - Selected, Chance Memo and Nomination Lists are displayed together at one time

- Sufficient Time for intimation of Admission/Counselling Date & Time (10-15 days)
- Completion of Admission in minimum number of days (1-3 days)

7. **Counselling for Admission**-
    - Developed Counselling System for Admission for Multiple Courses/ Centres/ Branches/ Schools from the single Tests.
    - Training Program and Training Modules have been written and implemented.
    - The System is very much appreciated by the Staff and Applicants due to its Transparency and Ease of Operation
    - The system provides due weightage to all for their Merit, I/E status, Special Categories etc.
    - It completes the admission in minimum number of days.
    - Developed **Counselling Software** which is partially implemented and is ready for its **Online Deployment** to update the data of Admitted students in real time.

8. **Biometric Test & Photography**
    - Introduced Biometric Test and Photography for newly admitted students in all courses to check impersonation of Admitted Students.
    - The same data is also used for their photo Identity Cards
    - The data can also be used for the development of future security and automation system.

9. **Question Banks**- Introduced new strategies to have a large database of Multiple Choice Questions for different Competitive Test and their Digitization to anticipate Online Tests in the near future.

10. **SOPs**-Standard Operating Procedures have been developed for almost all processes related to Admission and Examinations.

11. **Secure Degree and Certificates**-
    - Modified the existing Degree/Certificate preparation Method
    - Reduced 160 Numbers of formats of Degrees to 40 Numbers only. Further reduction will be done.
    - Designed Secure Degree /Certificate having many Security Features-
        - ✓ Tearless Paper having very long life
        - ✓ Hidden Micro Text (AMU on border line)
        - ✓ A4 plus size format (0.5 cm more in length and width)
        - ✓ Slouchy pattern in the background
        - ✓ UV radiation highlighted visibility of AMU Aligarh

- ✓ Laser burned Serial Number
- ✓ QR code of printed matter
- ✓ Hot Stamping of Gold Plated University Monogram
- ✓ Unigram (Hologram) having 4 photos of University

- Customised Degree Printing Software
- Secure Record Keeping of Original and Duplicate Degree/Certificates

12. Secure and Economic Measures

- Many measures have been taken to reduce the cost , time and energy as well as to enhance efficiency of the different works related to Admission and Examination System, such as:
  - ✓ Reduction of time by avoiding unnecessary postal work of answer books
  - ✓ It also improved the working environment by avoiding unhealthy fumes.

Digital Initiatives in Higher Education

BBAU, Lucknow

University has taken several digital initiatives including:

1. Proposal for MOOCs Programme in various courses (Copy of the proposal is attached, herewith)
2. Online entrance test has been introduced
3. Digital transfer of all the accounts
4. Digital attendance
5. Digital Identity Cards
6. Digitalization of Examination/Evaluation System

A proposal to start MOOCs
(Massive Open Online Courses)

On

1. **Diploma in Information Communication and Technology**
2. **Advance Diploma in Information Communication and Technology**
3. **PG Diploma in Information Communication and Technology**
4. **Master of Science in Information Communication and Technology**
5. **Introduction to Applied Microbiology**
6. **Certificate Program in Management**
7. **Diploma in Management**

Babasaheb Bhimrao Ambedkar University
Vidya Vihar, Raibareily Road
Lucknow-226025

Background

It is evident that the digital technologies have the potential to dramatically transform Indian higher education. Over the past few years, observers of higher education have speculated about dramatic changes that must occur to accommodate more learners at lower costs and to facilitate a shift away from the accumulation of knowledge to the acquision of a variety of cognitive and non-cognitive skills. All scenarios feature a major role for technology and online learning. A new model built around Massive Open Online Courses (MOOCs) that are developed locally and combined with those provided by top universities abroad could deliver higher education on a scale and at a quality not possible before.

MOOCs have given Indian academics a better sense of how a lecture could be restructured into short, self-contained segments with high interactivity to engage students more effectively. India is full of young people who possess a high comfort level with technology. Indians are among the most aggressive users of MOOCs. Of the 2.9 million registered users of Coursera in March, more than 250,000 were from India, second only to those from the U.S. India is a home of second largest audience for MOOCS after US, which brings great challenges and opportunities for the use of such courses in India.

The emergence of MOOCs and on-line education could be one good method to implement green computing in Higher Education Institution (HEI). In HEI the following changes are almost unavoidable such as (i)Globalization and the increased momentum for internationalization in HEI, (ii) Worldwide increased demand for access to HEI with a projection that there will be 120 million students worldwide by 2020which means MOOCs will be one alternative to cater these needs.

Yet we still need to find the right model to use MOOCs in an Indian context. With a decade of experience in this space and a vibrant technology ecosystem, India will most likely find its way soon. Babasaheb Bhimrao Ambedkar University is also trying its level best to make the use of MOOC in an effective way. MOOCS (Massive Open Online Courses) will made access to Babasaheb Bhimrao Ambedkar University-level content for every learner possible. By providing free online courses on demand, the Babasaheb Bhimrao Ambedkar University, through MOOCS, will enable learners to learn from anywhere irrespective of their situation as long as they have internet access.

Babasaheb Bhimrao Ambedkar University, under MOOCs, will offer an unprecedented opportunity to revitalize education. These cause complete dis-intermediation of the university system, making them very affordable. Our vision is to explore, examine, and solve pedagogical and technical issues, and establish the best possible model of blended learning, for Indian education system. MOOCs at BBA University will present an opportunity to conduct educational research and examine the

potential for use of its elements in on campus settings as a form of flipped classroom or blended learning approach.

Methodology to be followed

MOOCs of BBA University are designed on sound pedagogical foundations that are at the very least comparable with courses offered by Universities in face–to–face mode. online learning is particularly effective, formative quizzes enhance learning through the mechanism of retrieval practice, short video formats with quizzes allow for mastery learning and peer and self–assessment enhance learning. Further short videos complement the optimal attention span of students and discussion forums provide an adequate replacement of direct teacher–student interactions that would be considered normal for a class delivered on campus. The following methodology will be followed in general while delivering the course under MOOC:

- Lectures formatted as short videos combined with formative quizzes;
- Automated assessment and/or peer and self–assessment
- An online forum for peer support and discussion

The common duration of MOOC course of the Department of IT will be of 12 Weeks and will be accessible 24 hours a day, 7 days a week. The majority of the content is delivered asynchronously. However, sometimes there can be optional synchronous events including live webinars (interactive sessions) which require participants to join in at specific date and time. The Department will follow the following methodology as for as the successful conduct of the MOOC courses in IT:

- A standard class with a set of videos of 60 minutes each
- The learning students in MOOC will be assessed by Multiple-Choice Questions.
- An important component of MOOC is assignment; student have to upload assignments solutions into MOOC platform which will be evaluated and graded by following either of the ways:
    - ✓ Automatically when possible
    - ✓ Peer-to-peer: students evaluate and grade themselves
- Usages of forum, where students post questions that other students can answer

BBAU MOOC Structure

The Department of IT believes that BBAU MOOC format should be based on three areas of student engagement including:

Video Lectures: These are, at their most basic, recorded asynchronous sessions of the lead academic discussing topics related to the MOOC subject. A wide array of presentation styles will be used, from

talking heads to interviews to picture in picture (for example, when slides are being used). Subtitles (primarily English, but other languages are being introduced) will be provided.

Assessment: Assessment will be based on automatically-graded multiple choice questions, either as part of the video lectures (in-video quizzes) or taken separately. In addition to multiple choice questions (MCQs), course teams will also choose to use auto-graded programming assignments or peer-review assessment. Peer review will be used for more open-ended assessment formats and will require students to mark one another's work based on a defined rubric set by the instructor.

Forums: MOOC forums are the main method of student interaction with the content, each other, and the course teams. Forums are typically split into a number of threads, including (but not restricted to): general discussion, subject specific discussion, course feedback and technical feedback. Instructors will actively participate in these forums or will choose to use teaching assistants to respond to students, escalating queries when needed.

In addition to this, the additional learning resources will be provided to the students by the following manner:

Live video sessions: In addition to the weekly lectures, a live video session with the lead instructor will be scheduled at the end of weeks 2, 4, 6, 8, 10 and 12. Students will be invited to ask, and vote for, questions on the MOOC forum and the instructor will respond to those questions with the most votes. Transcripts of the session responses will be posted on the forums at the beginning of each week.

Reading materials: Students will be offered excerpts from legal textbooks covering the areas to that week's topic of study. Copyright clearance will be simplified by using texts authored by the instructors.

Activities: A range of formative activities will be offered, with the aim of allowing students to further test their knowledge of each topic. These activities will not be part of the MOOC's formal assessment but attempted to help provide a deeper understanding of the concepts. Video feedback for some of these activities will be provided.

Additional video resources: These will be scripted student discussions, or role-played scenes illustrating various principles or ideas, after each video lecture. These additional video resources will be associated with the weekly themes and will be intended to help recap some of the ideas presented in the lecture.

Social media: Twitter chats will be hold for one hour on a number of Saturdays (in order to allow as much student participation as possible) while the MOOC is running. Questions relating to the

previous week's study will be discussed in the session, which will not academically be moderated but monitored by the course team. For those students unable to access the session, or for those who did not use Twitter, the session questions and answers will be posted on the MOOC forums.

Pre-Requisites

There is no pre-requisite for taking a MOOC course, apart from having access to a computer with an internet connection.

Study Materials

Students usually don't need to buy any book for these courses because al reading materials are either be provided within the MOOC content or will be linked to open access text.

Supporting Infrastructure in the University

MOOCs integrate social networking, accessible online resources, and are facilitated by leading practitioners in the field of study. Most significantly, MOOCs build on the engagement of learners who self-organize their participation according to learning goals, prior knowledge and skills, and common interests. MOOC will be offered typically spreads through an online social network. A central web address may be used to consolidate a registration process, outline the suggested course schedule, and provide a nexus for support and communication.

Unlike traditional courses, MOOCs require additional skills, provided by videographers, instructional designers, IT specialists and platform specialists. The platforms have availability requirements similar to media/content sharing websites, due to the large number of enrolees. Course delivery involves asynchronous access to videos and other learning material, exams and other assessment, as well as online forums. Babasaheb Bhimrao Ambedkar University is equipped with these many requirements. A virtual classroom is established in the University and is continuously conducting virtual classes and streaming videos. This may be used in preparing video and audio lectures with the help of the Department of Mass Communication and Journalism in the University. Most of the classrooms in the University are multimedia enabled. Furthermore, IT specialists and platform specialists are available in the University to run the courses smoothly. Therefore, Babasaheb Bhimrao Ambedkar University can take this challenge of running courses under MOOC programme immediately.

For a good quality video conference, the University has microphones, video cameras, audio mixers and other bits of hardware to plug into the network. A typical video conference uses 384kbps to 768kbps, this "pipe" must deliver a number of frames (pictures) per second at a particular resolution, along with the connection overhead required for internet transmission. Time to time,

the University takes part in meeting with MHRD, UGC members with the help of this facility. University also broadcast President Address through video conferencing.

The higher the resolution and the greater the frame rate, the more bandwidth required. Some numbers for reference: typical resolution specifications are 640x480 pixels for webcams, 720x480 for NTSC cameras, and 720x576 for PAL cameras. Frame rates look best at 25-30 per second, but can be as slow as 7.5 frames per second and still be tolerable in some situations. To enable the video conferencing the University has 10 mbps speed Internet Connection and Wi-Fi connection at the installed area.

Quality Assurance Process

Detailed below is an overview of the quality assurance process, which will be incorporated into the MOOC process:

Course Preparation

- Before a class is publicly announced, the instructor will finalize a course description that is used for prospective MOOC students of BBAU to learn more about the course. This will contain brief descriptions of the course content / syllabus, the course format, recommended background, and so on.
- University staff (including administrators, instructional designers, platform experts, etc., depending on the exact composition of the university team) will review the course description together with the instructors, looking out for unsupported features, potentially risky technology, copy-paste mistakes from existing class syllabi, etc., and making sure the class as described conforms with university standards.
- University staff will inform MOOC platform provider staff once the course description is ready to go live. They will then review the course description and publish it on their portal. After this point, students can view the course description and sign up for courses that are open for enrolment; university staff will also be able to make edits to the information without going through MOOC platform provider staff.

Course Overview

At least two months before the scheduled start date of the class, the instructor will outline an overview of how they expect their course to run. The purpose of this is to ensure that instructors understand the limitations and capabilities of the platform, and that they feel comfortable with the features available to them. This overview includes:

- Detailed descriptions of class content, assessments and grading policies.
- Information on whether the material for the class is being repurposed from an existing source, and if so, what changes are being planned to the existing material to make it suitable for a MOOC.
- A full list of any external software (e.g., Google docs, 3rd-party assessment tools) that instructor intends to use.
- A commitment to prepare a specified amount of course material in advance.
- Instructors, university staff, and MOOC platform provider will jointly review this document. Delayed agreement on course overviews can delay the start of the course.

Preparation and Publishing of Course Material

Approximately one month before the scheduled start of the course, instructors and university staff will jointly upload a minimum amount of course content. Adding course content a month before the course opens allows instructors, university staff, and MOOC platform provider staff time to review the course, correct any inconsistencies, and make any tweaks and improvements to pedagogy. Course content to be uploaded a month before the start of the course includes:

- First week's lecture videos
- Descriptions of course syllabus / grading policy / course logistics within the class
- Welcome announcement / email, scheduled to be sent on the first day of class
- First quiz, first programming assignment, and first peer assessment, if applicable
- A list of any unusual needs, including, most especially, any external software that will be used in the class, including access to the relevant integration code for our engineering team to review.
- Instructor and university staff will jointly upload two weeks' worth of course content at least two weeks before the scheduled start date of the class.

Courses Proposed Under MOOC

- Diploma in Information Communication and Technology
- Advance Diploma in Information Communication and Technology
- PG Diploma in Information Communication and Technology
- Master of Science in Information Communication and Technology
- Introduction to Applied Microbiology
- Certificate Program in Management
- Diploma in Management

Brief Report on Recent Digital Initiatives

in Banaras Hindu University

Banaras Hindu University (BHU) has a main campus comprising of 04 institutes, 14 faculties about 130 departments & centres and a south campus in Mirzapur (with courses focused mainly on providing skill-based training). The University also houses a large hospital and Trauma Centre in addition to IIT (BHU). The total student enrolment in the University is approximately 32,000. University has taken a number of digital initiatives in the recent years and is planning many others as part of a detailed roadmap of moving towards a digital enabled campus. Some of these initiatives are briefly described below.

Enabling IT Infrastructure:

1. **Campus-wide LAN:** The University created its first campus-wide LAN about 15 years ago which has largely been working successfully, providing different kinds of services (like E-library, access to journals, computational services, University Intranet Website, Video Conferencing, limited IP telephony, HMIS etc.) to the users in the University. Currently, University is actively working towards replacing this old campus-wide LAN with a new high-speed Fibre Optic campus-wide LAN as part of the MHRD's project.

2. **Central Data Centre:** The University is actively working towards creating its own data centre for secure and permanent storage of various kind of records of the University and to allow their efficient retrieval. University has already provisioned for non-IT infrastructure for this purpose and is actively working to procure the IT-infrastructure required for the purpose. This data centre will not only cater to University's Digitization project but would also provide digital storage space to every faculty member of the University. Faculty members would be able to permanently store their course material, which would also be accessible to students.

3. **Digitization of Permanent Records:** The University has repository of records for last 100 years. It has become necessary to preserve them in a manner that they are not only stored securely but also accessible as required on click of a button. For this purpose, University is currently executing a massive Digitization project to digitize all permanent records and store them in electronic form in a data centre. These records would be integrated with an ERP system.

4. **ERP and Online Portals:** University is actively working towards procurement and phase-wise deployment of a full-scale ERP system. Priorities of implementation have been identified and necessary action is being taken for the purpose. The Student-life-cycle is already automated to a large extent. The current priority is to upgrade existing software for financial management and deploy a software for Human Resources Management. University has also developed several online systems through its own resources. A "***Write to Administration***" portal is the most recent addition. It allows University teachers, employees and students to communicate their grievances and

suggestions to administration. They can also view the action taken through the online system.

5. **IP-based Telephony and Surveillance:** The University has tested a limited scale deployment of IP-telephony in the existing campus-wide LAN. It is now being considered to go for a full-scale campus-wide deployment of IP-telephony capable of voice and video traffic. This infrastructure would be integrated with the online teaching learning system. A plan to deploy an IP-based surveillance system is also being considered.

IT-based Teaching, Learning and Evaluation Activities:

6. **Digital Classrooms & Delivery:** Various departments of University have smart classrooms with appropriate audio-visual setup which is used for teaching purposes. In addition, faculty members in various departments maintain online course homepages and use online evaluation systems in their teaching activities. The syllabus for all the courses in the University is posted regularly on University Website. Some of the departments have also provisioned for Reading Electives in their curriculum, through which students can enrol in any popular MOOC of their choice and earn credits for their academic program. In addition University is also in the process of developing some MOOCs. Initially three courses, namely 1. Statistical Physics, 2. Genetics and Cytogenetics, and 3. Religion, Conflict & Globalization; have been identified for the purpose.

7. **Audio-visual Recording Studio:** University has set up an audio-visual recording studio in its Agriculture Science faculty, which is used for recording lectures and their larger dissemination. A Gyanvani centre is also functioning in the University campus. More recording studios are also proposed.

8. **Automation of Regular Examination Processes:** The regular examination process of the University is now largely automated. Starting from process of enrolment to pushing the results on desktop and mobile phones of candidates, most of the processes are now automated. Teachers evaluate answer scripts and upload marks on an online system which immediately displays the marks to students. Various process like admit card generation, marks upload & display and verification of transcripts are now automated.

9. **IT-based System for Entrance Examinations:** University has now moved to a pure online system for admission form, centre allotment, entrance hall ticket generation, OMR evaluations, result declaration and admission counselling processes. The entire admission process is fully automated with virtually no paper-trail. No admit cards or counselling letters are now posted to candidates. Answer keys of various entrance examinations are posted on the Web, making the entire admission process fully transparent.

Online Recruitment System:

10. **Online & Rolling Process of Recruitment of Faculty:** University has adopted a fully online process of recruitment to faculty and selected non-teaching positions. The online system is successfully operational for last 3-4 years. The entire process of submission of application form, shortlisting of candidates, preparation of merit lists and dispatch of call letters is now automated through the system.

Mandatory Disclosure of Information on Web:

11. **Posting Important Information on the Website:** University maintains two websites, one external and other an Intranet website. All important information including acts, statutes and minutes of various statutory bodies are now posted on the University website. Similarly, all internal forms, rules & regulations for internal consumption are posted on Intranet website of the University. An ***Employee self-service portal*** is also being developed for the use of employees of the University through which they can view and download their salary slips, leave records, PF statements etc.

HMIS:

12. **HMIS**: The University now has a functional Hospital Management Information System (HMIS) to cater to needs of the University's large Hospital. Medical records are now being maintained through this system and activities like OPD registration and billing are part of the system.

Miscellaneous:

13. **EDUROAM:** University has recently successfully deployed EDUROAM services through the support of ERNET.

14. **Digital Library:** University has initiated necessary process for creation of fully connected Digital Library and joining the MHRD's Digital Library initiative. BHU is already member of INFLIBNET and various other consortiums.

15. **Outreach and IT-skill Training:** University Computer Centre is running a summer internship program for engineering students of various engineering colleges where they are trained in programming skills and various other software. An understanding in this regard has also been made with the Spoken Tutorial project of IIT Bombay, which was successfully run for the first time recently. Various other IT-training activities are also being undertaken by Computer Centre. The Career Development Centre of the University is also doing some training for career development of students of the University.

अंग्रेज़ी एवं विदेशी भाषा विश्वविद्यालय
(संसद के अधिनियम द्वारा स्थापित केन्द्रीय विश्वविद्यालय)
(वर्ष २००० में नैक द्वारा पाँच सितारों से प्रत्यायित तथा वर्ष २०१६ में 'ए' ग्रेड़ से पुनर्प्रत्यायित)
हैदराबाद - ५०० ००७, भारत
परिसर: लखनऊ एवं शिलांग

The English and Foreign Languages University
(A Central University established by an Act of Parliament)
(Accredited 5 Stars in 2000 & Re-accredited with 'A' grade by NAAC in 2016)
Hyderabad - 500 007, India
Campuses: Lucknow and Shillong

A Brief report on EFL University contribution for Digital Initiatives

The English and Foreign Languages University has significantly contributed for Digital Initiatives started by Govt of India. We have an Educational Multimedia Centre (EMMRC) which has played a significant role in NME ICT, SWAYAM and SwayamPrabha initiatives. EMMRC – EFL University is one of the best among all the centres under the UGC – CEC.

1. **NMEICT: National Mission on Education through Information and Communication Technology** – to provide equal and quality educational opportunities, the GoI launched the NME ICT to better utilise the digital facilities to enhance the quality and the reach of the educational opportunities.

   1st Phase: In the first phase of NME ICT our EMMRC has produced **815** video programs on 03 subjects namely UG General English, BA Psychology and BA Honours English for VYAS TV and 815 modules on 03 subjects namely UG General English, BA Psychology and BA Honours English for E-content made available on the CEC website.

   2nd Phase: In the second phase of NME ICT our EMMRC has produced **1120** video programs on 08 subjects namely French, German, Spanish, Russian, BA Hons Urdu, BEd English, BSc Home Science and LLB for VYAS TV and **930** modules on 08 subjects namely French, German, Spanish, Russian, BA Hons Urdu, BEd English, BSc Home Science and LLB for E-content, till date. And some programs are at various stages of production.

2. **SWAYAM**: (Study Webs of Active learning for Young Aspiring Minds)
   SWAYAM would allow students in any part of the country to take courses offered by the best teachers from our University, thereby allowing access to

premier education to all. Non-engineering undergraduate courses were allocated to our university EMMRC by the UGC- CEC.

For SWAYAM, our University EMMRC has contributed 02 MOOCs (Massive Open Online Courses) in 02 subjects namely Modern British Literature and Health Psychology, till now. And 11 courses are in pipeline.

3. **SWAYAMPRABHA – DTH**

   The SWAYAMPRABHA has been conceived as the project for telecasting high quality educational programmes through 32 DTH channels on 24x7 basis.

   The EFLU EMMRC has been allotted with a Swayamprabha DTH Humanities Channel - 01 (Channel-01) and is running successfully. Every day, we telecast four hours of new content which is repeated 6 times a day. Until now we have scheduled and telecast 11 courses from UG English honours syllabus. Presently we are telecasting 9 courses from the UG General English content which was developed as part of the NMEICT project. We are ready to telecast the content developed on Hindi, Urdu, French, German, Spanish language as well as some content of the enrichment programs in near future.

4. **e-Acharya**: Integrated e-content portal of NME ICT
   The EFLU EMMRC has contributed significantly to e-Acharya, the official repository of NME ICT e-content. Till date we have sent 3000+ e-content modules to CEC for display on e-Acharya platform.

5. **NDL (National Digital Library)**:
   We have started the process to digitize the old and valuable academic content to contribute to the NDL. (2000+ programmes to be digitized which were produced at our EMMRC)

6. **National Academic Depository (NAD):** The Representatives from the EFL University attended the Regional Workshop held on 26.09.2016 in Kochi and an Awareness Programme held on 27.6.2017 in Bengaluru. The EFL University will have to sign an MoU with either NSDL or CSDL for implementation of this programme.

7. **Students Admissions Portal:**
   The process of student life cycle has been automated and made online.
   Once the candidate is admitted to a particular programme at the EFLU, the entire academic life cycle of him/her is made online and the following are the services provided to him:
   - Online Registration of candidate to different courses opted by him/her from one semester to another semester
   - The attendance status in each and every course, grades accrued and the student's performance at internal assignments and also semester end examinations is made online
   - Admit pass issued to take the examinations is made online
   - Payment of semester tuition fee is online
   - Provisional grade card of the student for all semesters of the course taken is made online

   Above all, the candidate has direct access to all the above online facilities of his/her academic career at the University.

8. **Employee Services Portal:**
   We have started the Employee Services Portal as a digital initiative. With the help of CRIS (Centre for Railway Information Systems) we have developed this portal with all employee related services. In the first phase, on-line application of management of leave has been implemented for Teaching and Non-Teaching Employees. The Leave record of every employee has been placed online and the employees can apply for leave from anyplace with net access.
9. **Internet and WIFI connectivity**
   Our university is connected with 1GBPS internet connectivity and will be made WiFi enabled campus very soon – providing net facility to nearly 3000 users of the campus.

गुजरात केन्द्रीय विश्वविद्यालय

(भारत की संसद के अधिनियम सं. 25, 2009 के तहत स्थापित)

CENTRAL UNIVERSITY OF GUJARAT

(Established by an Act of Parliament of India, No 25 of 2009)

Registrar

Speed Post/Regd. Post/By Hand

F. No. 1-2/MHRD/2009-Admn/ Vol-VI / 1218

29th June, 2017

To,

Shri. Surat Singh,
Deputy Secretary (CU),
Govt. of India,
Ministry of Human Resource Development,
Dept. of Higher Education,
Shastri Bhavan,
New Delhi – 110 115.

Sub.: Brief write-up on the work done by Central University of Gujarat in creating digital content.

Ref.: Your letter F. No. 19/71/2017-CU. Cdn., dated 23rd July, 2017.

Dear Sir,

With reference to your letter cited above requesting for a brief write-up on creation of digital content for imparting and furthering higher education, by the direction of the Hon'ble Vice Chancellor, Central University of Gujarat, I am submitting herewith a brief note on digital initiatives envisaged and implemented by CUG.

Yours faithfully,

Registrar

29/6/17

Copy to:

1. Joint Secretary (CU&L), Govt. of India, Ministry of Human Resource Development, Dept. of Higher Education, Shastri Bhavan, New Delhi – 110 115.
2. AR-VC Secretariat.

Encl: Brief Note on Digital Initiatives.

सेक्टर-29, गांधीनगर-382030, फोन नं - 07923977407, फेक्स-07923260076

Sector-29, Gandhinagar, Phone No. 07923977407, Fax-07923260076

Email: registrar@cug.ac.in, website: www.cug.ac.in

Brief Note on Digital Initiatives of Central University of Gujarat

The Central University of Gujarat having been committed and subscribed to the "Digital India" Campaign initiated by Govt. of India, has made all out efforts and has been able to inculcate digital culture and ICT skills by introducing several initiatives in putting itself firmly on the digital mode of education. It is gratifying to note that the students, faculty and staff have rapidly adapted to and adopted digitisation and ICT as academic way of life. Following are a few initiatives that can be cited in support of efforts and achievements of CUG in fostering digital initiatives in higher education:

1. In the Central University of Gujarat efforts toward digitisation begin right from admission of students, providing digital access to the students from across the country for admission to various courses offered by the University with an End to End Online Entrance Test conducted in about 30 Centres located in almost every State of the Union, providing affordable access to Higher Education for its expansion.

2. The students engage with their studies and research on a Campus with 24×7 Wi-Fi connectivity of 1GB speed subscribed under NKN-NMEICT project.

3. All the e-learning resources like e-books, e-journals subscribed by the University Library are made available through remote access, opening the world of learning and knowledge to the students and faculty virtually round the clock absolutely free of cost.

4. The Library is equipped with RFID that further eases access to learning resources in print.

5. The students pursue their studies in the ICT enabled classrooms with LCD and Smart Boards, transforming their learning milieu into virtual classrooms.

6. Access to e-content and e-learning resources is further reinforced by subscription to CD-ROM database in all the major disciplines.

7. The University has created digital content on topics of crucial interest, especially during conduct of GIAN Programmes in Bioremediation, Climate Change and Comparative Literature ,which were webcasted live across the globe.

8. The University has created requisite infrastructure by establishing Virtual Learning Resource Centre with state of art Knowledge e-Resource Centre, Language Lab, Virtual Conference Hall equipped with Video Conferencing, Webcasting and Smart-Board facilities.

9. Special provision has been made to render digital education inclusive by acquiring latest software for accessing of e-learning resources by visually impaired P.G. and research students at Knowledge e-Resource Centre and the Central Library.

10. Provision is also made for obtaining student feedback/student evaluation of teachers online.

11. The University views, application and promotions of ICT as a way of life and mode of existence, through digitisation of all transactions – Academic, Administrative and Financial. All the Circulars, Notices, Notifications and all Administrative communications are put across

online, enhancing the speed and ease as well as reducing the paper work. The students are issued Smart Cards to enable them to pay their fees and receive their fellowships online, which also carries all vital information pertaining to courses offered by them and their progression.

12. All the financial transactions like salary, TDS, NPS deductions and grants are operated online with no provision for financial transactions in cash or through instruments.

13. In tune with Ministry directives and in compliance with principles of good governance, the University has registered itself on Government-e-Marketplace (GeM) and on e-procurement portals of NIC for all its purchases and procurements, adding to transparency, accountability and operational ease in the governance.

14. The University has introduced Skype and video conferencing mode of interview in the recruitment of faculty and is subscribing to National Academic Depository (NAD) for digitisation and remote accessing of all academic records of the students by potential employers.

15. For the safety and security of its students and its property, including expensive scientific instrumentation and its sensitive installation, the University has put in place 24×7 CC Camera Surveillance of the entire campus.

16. The University has entered into an MoU with University of Florida recently under which the University proposes to offer Online Certificate and Diploma Courses in Bio-Remediation, Water and Soil Science, Climate Change and non-conventional energy sources. These courses which are already being offered by University of Florida will be made available to students in India through CUG as on-line courses.

Several such other progressive and innovative initiatives for promoting Higher Education through digital mode are being explored to be harnessed and capitalised.

Registrar

REGISTRAR
Central University of Gujarat
Gandhinagar.

GURU GHASIDAS VISHWAVIDYALAYA

(A CENTRAL UNIVERSITY)

BILASPUR (C.G.)

A BRIEF WRITE-UP ON THE NATIONAL CONVENTION ON DIGITAL INITIATIVE IN HIGHER EDUCATION

Submitted to

MINISTRY OF HUMAN RESOURCE DEVELOPMENT

NEW DELHI

A BRIEF WRITE-UP ON THE NATIONAL CONVENTION ON DIGITAL INITIATIVE IN HIGHER EDUCATION

Digital India, a flagship programme of Government of India, aims at transforming India into a digitally empowered society and knowledge economy. It is intended to inform, educate and engage citizens through organization of events at large number of Digital points of presence and connect all citizens through Digital Media campaigns and events so that vision, services and benefits of the programmes could be conveyed. This will help in popularizing and expanding the reach of existing-e-services, plan and launch new services as well as educate citizens on functional literacy, cyber security, cyber hygiene, ensuring better utilization of digital infrastructure. **Guru Ghasidas Vishwavidyalaya has observed Digital India Week from 1-7 July, 2015 as per directives of Government of India.**

- **PROGRAMMES ORGANIZED DURING DIGITAL INDIA WEEK**

Date	Particular
01 July 2015	Live telecast of the Inauguration programme of "Digital India Week" by Prime Minister Shri Narendra Modi at Delhi from 4.00 PM onwards.
02 July 2015	Digital India Week Observance at GGV at 12.00 PM in the Central Library-Awareness about Core Elements of Digital India programme among Faculty members and students through Presentation, Display of Materials, Banners etc.
03 July 2015	Propagation of Governments' plan on Digital India among Academic Communities.
	Providing access to EBSCO e-Book Academic Collection to the Academic Community of GGV (80 thousand e-books).

06 July 2015	E-resource & Its Use – Presentation by Taylor & Francis Group towards optimum utilization of Digital Contents. at 11.30 AM.
	Digital Utility Awareness among students – A student completion programme at 2.30 PM.
07 July 2015	"e-Book awareness programme" by GIST – Willey Blackwell & IEL, towards optimum utilization of Digital Contents at 11.00 AM.
	"Use of Electronic Scholarly Contents" by Sage International, towards optimum utilization of Digital Contents at 2.30 PM.

I. UPGRADATION OF CENTRAL LIBRARY IN e-LIBRARY

(i) Upgradation of present Central Library in to e-library with the following facilities:

- e-Shodh Sindhu: Consortium for Higher Education Electronic Resource available through INFLIBNET-7447 journals are presently available online.

- E-resources and E-books made available. Presently 1339 e-resources as well as 1095 e-books are made available.

- Online Ph.D. Theses : 81

(ii) Radio Frequency Identification Devices (RFID) for Rapid charging/Discharging, Simplified pattern self charging, High Reliability, High Speed Inventorying, Automated Materials Handling and Long tag life.

II. DIGITIZATION WORK DONE BY UGC-HRDC IN THE UNIVERSITY:

S.No.	Particular
01.	Online Feedback of Resource Person
02.	Application apply online by the participants including registration fees
03.	T.A./D.A. of Participants
04.	T.A./D.A. of Resource persons
05.	Working Expenses
06.	Compilation of lectures in digital format
07.	Digitization of files/ Documents

III. INTEGRATED UNIVERSITY MANAGEMENT SYSTEM (IUMS) (Inaugurated on 20-5-2013 by Prof. Ved Prakash, Chairman, UGC)

- In order to transform the campus environment from conventional to smart ICT enabled online digital campus, an **Integrated University Management System** (IUMS) has been developed for the University by Indian Telephone Industries (ITI) in collaboration with Expedien. The system has been executed for making academic and administrative processes online and automatic including smart class rooms.

- System Requirement Specification (SRS) level module designing has been completed for Finance, Accounting, Human Resource Management System (HRMS), Academic, Examination, Confidential and Admissions modules. The data/server room has been developed as per specifications for installation of the IUMS.

IV. CAMPUS CONNECTIVITY THROUGH NKN:

- Under NMEICT project, campus network was successfully completed in October, 2012 with 460 nodes and is smoothly functioning for: Accessing e-books, e-

journals and other reading materials by students school wise and faculty members round the clock.

- Lectures delivered by Hon'ble President, Prime Minister, Minister of HRD and other dignitaries time to time through video conferencing.

V. Wi-Fi CAMPUS

- To further enhance the Wi-Fi services in the University campus, MHRD has sanctioned Rs. eight crore. The passive part of the work has already been completed by NICSI, and the Rail Tail has initiated the active part to make the campus fully Wi-Fi.

VI. MOOC & GIAN:

Massive Open Online Courses (MOOCs)

- The University has approved and adopted the Credit Framework for Online Learning Courses through SWAYAM.

- A two day's training programme on **"Development of MOOCs/E-content"** by faculty members was organized on 27th & 28th February, 2017. Prof. K. Srinivas, NUEPA, New Delhi (Also an advisor to MHRD on MOOCs) was the resource person. 40 faculty members from different departments participated in this training programme.

Global Initiative of Academic Networks (GIAN)

- During Phase –I of GIAN, out of five proposals submitted, the Department of English and Foreign Languages got approval of Rs. 8.16 lakhs by the National Coordinator

GIAN. The course was successfully conducted during July 11-22, 2016.

- During Phase-II, a total 10 proposals: 02 from Civil Engineering, 02 from Department of Pure and Applied Mathematics and 01 each from Botany, Bio-Technology, CSIT, Electronics and Communication Engineering, Forestry, English & Foreign Languages were submitted of which the proposal of Department of Pure and Applied Mathematics was accepted.

VII. ALL INDIA ENTRANCE TEST FORM FILLING:

- The applications for the **Vishwavidyalaya Entrance Test (VET) 2017-18** were submitted both in online and offline modes. More than 14000 students had registered out of which more than 12000 students appeared in the VET at 10 different centers across the Country.

- The result of VET was declared online on the scheduled date and was uploaded on the University website: www.ggu.ac.in.

VIII. SCHOLARSHIPS: under Digital India Initiative and Government of India.

- In order to provide timely scholarships and remove the deficiency with regard to students belonging to SC/ST/OBC/PWD/MINORITY categories, all records of students are maintained online, and payment of the scholarships is made in their respective bank accounts.

- University intends to link all the students' bank accounts with Aadhaar.

- Following is the details of students who received the scholarship during 2016-17.

Category	Male	Female	Total
Schedule Caste (CG)	411	193	604
Schedule Tribe (CG)	200	160	360
OBC (CG)	708	492	1200
OBC (other than CG state)	175	34	209
PWD	03	01	04
Muslim Minority	08	12	20
Other Minority	02	-	02
Grand Total	1507	892	2399

IX. CASHLESS TRANSACTION IN THE UNIVERSITY:

- In order to promote the Cashless transaction in the University three banks namely, State Bank of India, Bank of India and Allahabad Bank have been authorized to collect the fee and other transactions through online challans generated by IUMS.

- The University organized "**Financial literacy camp for online fee deposit system**", opening of new account, life insurance & PAN card programme under the Chairpersonship of the Vice-Chancellor.

- The University has installed **05 swipe machines in the Examination section, Central Library, Administrative building** (at the reception desk) **and Guest House** for cashless transaction facility for students and visitors.

- An **online fee deposit system awakening programme** to enable the students to deposit their fee was also organised by the finance section of the university.

- All the clerical staffs are being regularly trained as per guidelines to maintain the cashless transaction and for smooth operation of swipe machines.

- Regarding cashless transaction News Papers' clippings and photographs are enclosed for reference **(Annexure-I).**

X. VITTIYA SAKSHARTA ABHIYAN (VISAKA) held on 14, 16 and 20th December, 2016 by NSS Cell.

- As per instructions of MHRD, UGC, AICTE, a training program for students was organized in association with officials & staff of State Bank of India on 14-12-2016 as a part of 'Vittiya Saksharta Abhiyan' of Government of India.

- More than 500 students were trained for the application software **'SBI Buddy'**. The program was organized under chairmanship of Vice Chancellor, Prof. Anjila Gupta. In her address she explained the importance and need of digital economy.

- More than 300 students and teachers registered themselves as volunteer on VISAKA Portal.

- Survey in the market areas, adjacent to the University campus, was undertaken by about 300 students' volunteers on 16-12-2016 and it was observed that none use any kind of digital transaction.

- On 20-12-2016, a second round of awareness programme was organised by trained volunteers to give training to the small businessmen/vendors as to how to

use different digital payment systems in their business. The people took active interest and admitted that they understood the importance of digital payment system.

XI. OTHER DIGITAL INITIATIVES:

- As per directives of Government of India, the land record and MAP of this University has been uploaded on the Government Land Information System (GLIS) portal.

- NSDL has been authorized as Central Record Keeping Agency in digital form for employees opting NPS.

- A portal named as www.ggvalumni.in has been created for online registration of alumni of this University. A portal is linked with University website www.ggu.ac.in.

- A meeting of all officers was held on 01st June, 2017 under the Chairpersonship of the Vice Chancellor were in it has been unanimously resolved that, all the important letters, notifications, proposals etc. are to be digitized and kept in digital manner. In this regard, two members committee has been constituted to initiate the action.

- CCTV cameras have been installed in all classrooms and prominent places to observe the teaching/learning activities of the student and faculty and to keep an eye over the activities of the students, employees and visitors.

- All employees' information for the year 2016-17 pertaining to this University duly filled in the prescribed format i.e. **Data Capture Form** has been uploaded in the MHRD-**All India survey on Higher Education website**.

- The University has implemented **GeM** and started purchasing and payment. Also, the University has implemented GFR-2017 and started uploading all the

tender documents/forms in the **CPP portal**.

- University has **five e-conference rooms** where audio visual facilities are available. In two classroom video conferencing facilities is also available. All are connected through NKN nodes.

ANNEXURE-1

सीयू में ऑनलाइन फीस प्रणाली का उद्घाटन आज

बिलासपुर. सेंट्रल यूनिवर्सिटी में बुधवार को वित्तीय साक्षरता एवं ऑनलाइन फीस प्रणाली का कुलपति उद्घाटन करेंगे। दोपहर 12 बजे रजत जयंती सभागार में कुलपति प्रोफेसर अंजिला गुप्ता के मुख्य अतिथ्य में कार्यक्रम है। इसमें नए खाते खोलने, जीवन बीमा एवं पैन कार्ड हेतु सुविधाएं उपलब्ध रहेंगी। कुलपति ने कहा कि यह यूनिवर्सिटी में कैश लेस लेनेदेन को बढ़ावा देने का प्रयास है। छात्रों की सुविधा को ध्यान में रखते हुए यूनिवर्सिटी में 5 स्वाइप पॉस मशीन केंद्रीय लाइब्रेरी, परीक्षा विभाग, प्रशासनिक भवन के रिसेप्शन एवं गेस्ट हाउस में लगाई गई है।

समाचार पत्रिका में आन लाईन शुल्क संग्रहण प्रणाली के उद्घाटन संबधी प्रसारित समाचार

सेंट्रल यूनिवर्सिटी...

ऑनलाइन फीस डिपोजिट सिस्टम का उद्घाटन

पत्रिका न्यूज़ नेटवर्क

patrika.com

बिलासपुर. सेंट्रल यूनिवर्सिटी में बुधवार को कुलपति प्रोफेसर अंजिला गुप्ता ने वित्तीय साक्षरता एवं ऑनलाइन फीस डिपॉजिट प्रणाली का शुभारंभ किया।

रजत जयंती सभागार में कुलपति प्रोफेसर अंजिला गुप्ता ने स्वाइप मशीन का प्रयोग कर इस भुगतान प्रणाली की शुरुआत की। उन्होंने कहा कि यूनिवर्सिटी में पहले से ही ही डिजिटल पेमेंट की व्यवस्था लागू है, लेकिन छात्रों के लिए शुरू हुई इस सुविधा का सीधा लाभ अब उन्हें प्राप्त हो सकेगा। उन्होंने कहा कि सुरक्षा की दृष्टि से यह प्रणाली सुरक्षित है, इससे छात्र अब बिना नकद भुगतान के स्वाइप मशीन के जरिए फीस का भुगतान कर सकेंगे इस सुविधा का ज्यादा से ज्यादा उपयोग करेंगे। प्रभारी वित्त अधिकारी डॉ. आर के सोनी ने बताया कि इस ऑनलाइन फीस डिपॉजिट सिस्टम को यूनिवर्सिटी के सीएसआईटी विभाग की टीम एवं इलाहाबाद बैंक के सहयोग से तैयार किया गया है।

GGCU goes digital

TIMES NEWS NETWORK

Bilaspur: To encourage digital payments, Guru Ghasidas Central University has initiated online fee deposit system for accepting digital payments from the students. Five swap machines have been installed on the university campus for this purpose.

The university administration has installed swap machines in the examination department, the central library, the administrative building, in the reception and in the guest house so students can avail this facility.

A workshop on digital payment system was also organised in the university to raise awareness and inform the staff members and the students about the digital payment system.

In wake of the November 8, 2016 order to demonetise high-value currency notes, the Indian government is continuously trying to promote digital payment through its various undertakings so it replaces cash transactions. The central university has introduced digital payment system as part of it. It has, however, been clarified that along with digital payment, traditional method of cash payment of fees will continue in the university. GGCU is run under the ministry of human resource development.

स्वाईप मशीन द्वारा शुल्क संग्रहण प्रणाली का उद्घाटन





WELCOME TO ONLINE FEE DEPOSIT SYSTEM AT GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR (C.G.)

Dr. H. S. Gour Vishwavidyalaya, Sagar (M.P.)

A Brief Write-up on Digital Initiatives

Dr. H. S. Gour Vishwavidyalaya, Sagar has taken following steps in compliance to Digital Initiative Scheme of MHRD in Higher Education.

1. SWAYAM Program

- The University has developed a Massive Open Online Course (MOOC) on Petrology, a sub branch of Geology. It is a 16 weeks, 4 credits online course to cater the needs of students of B. Sc. Geology.

  This course was launched on Swayam Portal of MHRD (from 7th Nov. 2016 to 27th Feb 2017) and more than 700 students registered in the course. The course has completed first cycle with examination and result declaration and will now enter into second cycle (from July 24, 2017). This course has got rating of 4.9 out of 5.0.

- Following ten MOOCs are in the advance stage of development:

  (1) Metamorphic Petrology : 4 credit, 16 weeks
  (2) Crystallography and Mineralogy : 4 credit, 16 weeks
  (3) Geochemistry : 2 credit, 08 weeks
  (4) Economic Geology and Hydrology : 4 credit, 16 weeks
  (5) Elements of Applied Geology : 4 credit, 16 weeks
  (6) Environmental Geology : 2 credit, 08 weeks
  (7) Geomorphology & Geotectonics : 2 credit, 08 weeks
  (8) Photogeology & Remote Sensing : 2 credit, 08 weeks
  (9) Physical & Structural Geology : 4 credit, 16 weeks
  (10) Stratigraphy & Palaeontology : 4 credit, 16 weeks

2. ETV Programs for SWAYAM Prabha DTH TV Channels of MHRD

- The EMMRC of the University has produced and submitted 280 curriculum based ETV programmes for B.Sc. Geology (3-Years) course. These programmes are now being telecasted on DTH TV Channel titled as CEC-UGC (SP- 08) on trial/test mode.
- The EMMRC has produced and submitted 545 CBCS based ETV programs for B. Pharma (4-Years) course. These programs are under preview and shall be available soon on DTH TV Channel titled as CEC-UGC Applied Science (SP- 010).
- The EMMRC has produced and submitted 310 CBCS based ETV programs for B. Sc. (Hons.) Forensic Science (3-Years) course. These are under preview and shall be available soon on DTH TV Channel titled as CEC-UGC (SP- 06).
- The EMMRC has produced and submitted 205 curriculum based ETV programmes of B. A. Criminology (3 Years course) which are under preview shall be available on DTH TV Channel titled as CEC-UGC (SP- 06).

3. GIAN programes

Eight GIAN programs conducted by the Vishwavidyalaya are being converted into broadcast quality ETV programs for telecasting on SWAYAM Prabha DTH TV channels.

4. e-Contents

EMMRC of the Vishwavidyalaya is actively engaged in developing e-content programmes under NME-ICT of MHRD. Details are as under:

- In the Phase – I, Centre produced and submitted 276 e-content programs for 3-years course in B.Sc. Geology. These programs are available on CEC web portal.
- In the Phase – II, a total 486 e-content programs in B. Pharma have been produced and submitted to CEC for uploading.
- 310 e-content programs for B.Sc. (Hons) Forensic Science and 205 e-content programs for B. A. Criminology have been developed and are ready for submission to CEC.
- Centre has also developed 1600 Learning Object Repositories (LORs) on various subjects viz., Geology, Pharmacy, Forensic Science and Criminology and submitted to UGC-CEC for uploading.

5. National Digital Library

- The e-library section of Central library is providing IP based access to digital academic data/material to students.
- The Central Library is now linked with National Digital Library (NDL) and our students have access to academic materials available on NDL portal.
- Central Library is preparing repository of its own publications (viz., Madhya Bharti, Bhasha Bharti, Sagarika etc.) to be hosted on NDL portal soon.
- Several doctoral theses have been uploaded on Shodh Ganga Portal.

6. Campus Connect Program (Wi-Fi)

Under Campus Connect Program of MHRD in the Vishwavidyalaya, the underground Optic Fiber Cable laying work has been completed (excluding buildings under construction) in June 2017. Our 35 departments, central office, hostels, VC residential complex and many other buildings are now connected with fiber optic cable. The activation of Wi-Fi service shall begin by August 2017.

7. National Academic Depository (NAD)

University has short-listed National Security Depository Limited (NSDL) as an official service provider for creating Academic Depository. The MoU with NSDL is in the pipeline.

8. Integrated University Management System (IUMS)

University has selected ITI, New Delhi (a Central Govt. PSU) as a partner for implementing Integrated University Management System in the campus. In the first phase, 18 modules have been purchased. Some of these modules are: Administrative modules, Examination & Academic modules, Finance Modules, Student Portal module, Employee portal module, Establishment module and File tracking module

The requirement of inputs & data has been collected from various sections of the University in order to customize these modules as per our need. Some of these modules will be functional within two to three months.

9. Self Learning Program

The Department of English and Other European Languages has established a Language Laboratory for interactive learning of English language for students through software.

10. Admission work

Admission process of students and research scholars of the University under CBCS program is online on following aspects:

- Filling & Submission of application forms (online)
- Admit card generation (online)
- Result declaration & cut-off (online)
- Counseling letter generation (online)
- Registration of new students (online)
- Payment of Fee (online)

11. Digital Literacy Program

University has conducted two Digital Literacy Awareness programs in January 2017; one by the NCC cadets and other by the Department of Computer Science.

Note on Digital Initiatives for Higher Education by CUHP

Open Educational Resources (OER) Policy

The CUHP is unswervingly committed to provide inclusive access to quality higher education through utilizing open knowledge resources, adopting distance learning methods and providing lifelong learning opportunities to all. Realizing the importance of digitalization of content to facilitate open learning, the university has prepared the OER policy, which provides opportunity for the faculty members to develop educational resources thereby enabling them to share these under appropriate open licenses. For this, the CUHP collaborated with Commonwealth Educational Media Centre for Asia (CEMCA), developed and finalized OER policy draft, and got it approved from the University authorities. The policy document is available at CUHP website: *<http://cuhimachal.ac.in/news/2017032015141545.pdf>*.

The purpose of the policy is to make material available under Creative Common License; support voluntary participation of faculty and other members in developing OER contents; clarify publication rights and licensing issues; provide guidance in development of OER materials prior to sharing them worldwide and define collaboration within and without university with the intent to allow access to open content. The Policy document has elaborated different aspects like definitional issues, composition of production team, purpose of the policy, applicability, types of licenses, quality assurance and review system, liability, role of the faculty /teachers/content developers and institutional arrangements and so on.

To implement the policy, the university planned and completed prototype construction of the OER repository. To begin with, ten Departments planned to offer twenty five online courses using institutional Moodle LMS during the coming semester. For this, a Three-day Workshop on E-Content Development using OER for Quality Learning was conducted on 19-21 April 2017 in which 25 faculty members were trained to develop e-content for online platform. A Two-day Review Programme has been planned to assess and monitor the quality of the developed e-content before it is available online for the learners. To extend the programme, a Three-day Workshop on ICT-integrated Teacher Education was conducted to train teachers working in District Institutes of Educational Training (DIET) across Himachal Pradesh.

The University of Himachal Pradesh has constituted the MOOCs Prakosht in the academic year 2015-26. In addition, the following activities have been undertaken. (i)Conducted one week Faculty Development Program (FDP) on the topic, "Emerging Trends in ICT for Higher Education" from 9th to 15th June, 2016; (ii) Prepared the Draft Ordinance on MOOCs and has been circulated among all the faculty members by the Registrar and is ready to be put up in the next Academic Council meeting; (iii) Uploaded course content for one theory and one practical course on MOODLE platform and offered to students of Department of Physics and Astronomical Sciences in offline mode. This is a pilot study to understand the system requirements and manpower needs to successfully implement MOOCs in the university and (iv) Started MOOCs corner on the university website

Digital Financial Literacy Campaign (VISAKA) Run by CUHP

Complying with the directions of MHRD and UGC, the CUHP launched *Vittiya Saksharata Abhiyan (VISAKA)* via conducting a meeting of all Deans/ Heads/ Directors to launch drive to motivate students for registration as volunteers to train 10+1 families in digital mode of payment. Despite winter break, 219 Students along with faculty members got registered on the Portal. A team of 14 Master Trainers was constituted, where each Master Trainer had to train and monitor the activities of a group of volunteers. The action committees, namely Field Facilitators and Core Monitoring Groups were constituted. On 16th December 2016, a meeting with the Bankers was also organized. The goal of CUHP as a Cashless Campus has been achieved up to 95%. Posters, Pamphlets and other publicity material have been printed and circulated amongst the CUHP-adopted villages to popularize *VISAKA*, and information about the same is available on the university website. Whatsapp and email groups have been created for all the Master Trainers and so far 3 Training and Awareness Camps with the villagers have been successfully organised. The CUHP received an overwhelming response from most of the volunteers, and 02 of them got awarded by the Hon'ble HRD Minister for their best efforts on 8th March 2017.

Responding to the call of Hon'ble MHRD Minister, the CUHP has initiated a wide campaign to motivate students to work for Digital India Mission during their summer vacation as well. The university has also connected this mission with our credit-based Community Connect Project. On the call of Hon'ble MHRD Minister university wide campaign has been initiated to motivate students work for Digital India Mission during their summer vacations. We have also connected this mission with our credit based Community Connect Project. The students are motivated and trained to educate their family members, relatives and other members of community to make transactions through BHIM.

Promotion of Cashless Transactions in CUHP

CUHP nearly functions on a cashless basis. All payments in the finance department are made online. The admission and recruitment processes are done through online to promote transparency. Arrangements have been made whereby students can deposit the admission and tuition fee online.

Library Resources

The University library has subscribed e-books through DELNET. It uses OPAC to provide access to the collection of books, J GATE and also has a EZ proxy for in house and remote access. It has Soul for library automation and participates in the resource sharing through INFLIBNET. It has on-line access to teaching and learning resources and other knowledge and information database/pack from Cambridge University Press, Economic & Political Weekly, Emerald, ISID, JCCC, JSTOR, Oxford University Press, Project Muse, Springer Link, Taylor and Francis Online, Wiley-Blackwell and J Gate. The University has also signed MoU with NAD (National Academic Depository).

Digital Initiatives undertaken at University of Hyderabad

Financial Digital Initiatives

Consequent upon the Demonetization of Indian currency in November, 2016, the following initiatives have been taken:

- Financial transactions wherever possible are done through RTGS.
- In the Finance and Accounts Department, Swiping Machine has been installed and no physical cash is handled.
- Student's Fees is collected through online transactions.
- Hostel Fees is collected through Banks.
- Library Books are purchased online.
- Guest House Charges are collected through Swiping Machine.
- Shopping Complex Rents are collected through Banks.
- Seminar Conference Receipts and Payments are done through Banks.
- Employees payments are made through Banks,
- Disbursal of Fellowship, Scholarship amount to Students, Scholars are made through Banks.

Academic Digital Initiatives

- **Online Application:**

Submitting online application with all validations. Admin Modules provide: Payment Authentication, Search facility based on given criteria, email and SMS features.

- **Entrance Examinations:**

Generating Hall Ticket Numbers, examination schedules, attendance sheets, stickers, despatch memos and many other reports.

- **Entrance Results Processing:**

Integrating OMR marks, generating merit lists, notifications - Called for Interview, Main list / Waiting lists, etc.

- **Admissions:**

Generating Fee challans, Registration Numbers, Admit Cards, ID / Semester registration cards, Vacancy Position, Admitted Lists, Left, Transfers, etc.

- **Semester Registration:**

Generating Eligibility lists, Fee, uploading fee data to SBI I Collect, printing semester registration cards, defaulters' list.

- **Student Information:**

All the activities of the student like Generating enrolment register, Year Book, various reports and statistics.

- **Semester Examinations:**

Updating courses, subjects offered and feeding of semester marks.

- **Semester Results Reports:**

Printing of Semester Notification, Semester Grade Sheets, Provisional Certificates.

- **Convocation:**

Preparing eligibility lists, Awards Book, etc.

- **Smart Degree**

Personalization and printing of RFID chip-based degree certificate, Certificate Reading and Locking.

- **Finger Print Capture:**

Captures and verifies the signatures

University e-newsletter (UoH Herald - uohherald.commuoh.in)

Last four years this initiative has helped the University reach information faster to the public, save paper and contribute to environment. Also helps in saving Rs: 3:00 lakhs every year in printing.

Social Media

The official pages of UoH pertaining to Facebook, Twitter, LinkedIn gives information faster to the student community and many of the queries are also addressed through this medium.

Online Ticketing System for Hostels

Hostel boarders often have issues related to civil engineering, plumbing, sanitation, scholarships, health centre, internet, medical insurance etc. Until now, students would either submit a complaint or enter it in a register. The complaint would then be forwarded to the department concerned and the latter would address the issue. Not only would this consume lots of paper, but it would often take up a lot of time. Boarders and hostel staff would end up spending a lot of time and energy following up on the complaint and ensuring that it was resolved.

In order to make the process simple and easy, the Chief Warden's Office has set up an online ticketing system.

Hostel boarders will now be able to submit a ticket online. The ticket is automatically forwarded to the department concerned. The department concerned will address it at the earliest possible. Both boarders and representatives of the department concerned will be able to reply and update the status of the ticket. Once the issue is resolved, the ticket will be closed.

Online Recruitment process

All the regular positions in the University are processed online with very minimal paper work. Applications are invited online; interview call letters are e-mailed, etc. Synopses of candidates submitted online are placed before the screening committee.

E-Governance

At the advent of digital and communication technologies paperless office has become reality. Moreover, our country is engaged in mission mode to reduce carbon foot-print in every walk of life. The e-Governance initiative of the University of Hyderabad has taken its initial step for kick starting automation of Student Life Cycle Management. This will be followed by automation of other processes like Employee Life Cycle Management, Asset Management, Management of Finance etc. The project objective includes optimizing University workflow for speedy delivery of services to the campus community.

Project Management system (PMS):

The UGC Networking Resource Centre functioning in the School provides research related support for college and University Chemistry students across the country. The PMS was installed to manage their visit programmes and all financial accounting matters related to their visit, including research and contingency support.

Academic management Software:

The academic management software was designed and implemented between 2015-16. The software is meant to automate the process of collecting the attendance records, marks of all undergraduate (M.Sc) students, generate the appropriate reports, such as whether the student is eligible to write the final examinations, preparing the final report of marks of the students from the internal and final examination marks, generate the grades obtained by the students for onward transmission to the Controller of Examination Office. Based on this data, the program automatically generates the list of students who are to be readmitted. It also prepares a list of students who have to repeat a course and adds these names to the list of students in such courses in the next academic year. The data is stored digitally within the system, and is accessible to the Dean at any later instance. The second aspect of the software similarly monitors the progress of the Ph.D. students.

Accounting management of Research projects

UoH is one of the first Universities to implement e-governance in the accounting and management of research projects, during the year 2012-13. Towards this the University procured and implemented custom designed software solution known as SFACTS and has since been using it successfully for efficient running of research projects of faculties. The capabilities of the software package includes accounting and management of procurement related to consumables, equipments, project staff salary, processing of bills, payment and obtaining utilization certificates and statement of expenditure and balance sheet and delivers accurate customized reports as per the Government of India regulations and practices.

National Convention

On

Digital Initiatives in Higher Education

1. **Digital Initiatives**

NAD: Institutional level academic depository has been created by the University

Online Admissions:

- ✓ The University conducts its admission to UG/PG programs through the collegiums of nine central universities. The applications forms are sought online. The merit lists is posted on the websites and counseling is done online. The admission to all courses is made through entrance test. The entire process of admission is online except the conduct of entrance test.

Maximum use of IT (in Admin/HR/Finance/better websites)

- ✓ The university maintains its own website wherein micro-sites has been created for each of the Department/Cell/Centre which are regularly updated.
- ✓ File tracking system has been initiated in the administrative section for smooth and transparency in the disposal of file.
- ✓ Each section is equipped with latest IT facilities such as reprography, internet, printing etc. facility.
- ✓ The entire work of administration, HR & Finance is automated & they correspond with the officials through e-mails. Website is regularly updated and every information is posted on the website for dissemination of information to the students & public at large.

2. **Innovative Methods for enhancing Teaching-Learning Process**

i. Uploading of Teaching Plans and Study Material on University website for students community

ii. Central University of Jammu has evolved a structure which promotes the involvement of the corporate perspectives in curricula. The University has introduced Skill Level learning among students by starting Bachelor's in Vocational Studies (B.Voc.) in Retail and Tourism Management and also offering one year Diploma in Beauty and Wellness under the aegis of Community College. These vocational programmes are in tune with industry requirements as per the National Skill Qualification Framework (NSQF), this ensures greater employability of youth.

University is offering Entrepreneurship and skill based courses across 34 programmes being offered by the Department of the University which facilitates the absorption of students in respective industries besides starting their own enterprises. Further, the University has also initiated the Campus Start-up Track for promoting innovation/technology benefitting community at large.

iii. The University has been able to build a strong industry-academia interface for the benefit of the students and faculty. Following initiatives are worth mentioning. In this

regard, University has initiated eminent lecture series wherein prominent personalities who have contributed in their respective fields are invited periodically for interaction with students and faculty.

The University last year organized a three days HRD congress with an objective to strengthen the links between University and Corporate Houses. The event witnessed participation of top notch industry leaders form almost 30 corporate(s). Keeping in view the restricted industrial exposure for students of the State, the event not only provided the platform to the students of CUJ but was also extended to other academic institutions of the region. Through this event, the University was able to provide corporate guidance and training for students and faculties across the disciplines. Furthermore, through HRD Congress the University was able to generate training, mentorship and placement avenues for faculty and students respectively.

The University has also initiated a unique "*Corporate Immersion & Leadership Development Programme*" with an objective to sensitize the professionals towards the grass root level understanding of industry and practicum that attempts to connect classroom learning with real time environment.

iv. Coaching Classes for Competitive Examinations started from 2016 onwards

v. Capacity development of Teachers

a) Course on Intellectual Property Rights (IPR), Research Methodology, Eminent Lecture Series, Extension lectures are being regularly organized by the University at number of times.

b) Teachers are being promoted for undergoing General Orientation and Refresher Courses.

c) Seminars/Conferences/Workshops are being organized by different departments from time to time for the benefit of teachers and students

d) Teachers of the University are motivated for attending Seminars/ Conferences/Workshops to Centers of Excellence for professional development

3. Innovations in improving the administration of Institutions

i. Biometric installed
ii. File Tracking introduced
iii. Intranet Server set up
iv. Official E-mail ids for all employees of the University set up

4. Measure for promoting research

- ✓ Best Teacher Award – Rs.1.00 Lakh
- ✓ Best Innovative idea by University student - Rs.25000.00
- ✓ Best Innovative idea by female entrepreneur/student of the region- Rs.25000.00
- ✓ Minor Research Project – Rs.3.00 Lakh (for each Department)
- ✓ Best Researcher award – Rs. 1.00 Lakh
- ✓ Financial support for participation in National and International Conferences

5. **Major efforts at involving with the community for improving livelihoods**
   - ✓ As a part of its community outreach activities, the University has adopted five villages under Jung Panchayat and adopted Schools under these villages for Capacity Building of Teachers/Administrators and Students-Oriented Support Programmes are being organised for the benefit of the community.
   - ✓ University is also conducting capacity building training programmes on Effective managerial Skills for local artisans and kalamkari workers.
   - ✓ University Business Incubation Centre is promoting Grassroot innovators
   - ✓ NCRI has sanctioned **Centre for Fostering Rural Community Engagement, March 2017**. NSS Coordinator has been nominated as **National Community Engagement Officer**.
   - ✓ **Community College,** Central University of Jammu in collaboration with NASSCOM Foundation/ Planet Ganges conducted **Campus Employability Programme/ Placement Drives** across the state. **310 students** participated in the Campus Employability Programme, 2017
   - ✓ Community College, Central University of Jammu has conducted the Training Programme for the Officers of Department of Horticulture Marketing and Planning, Jammu, **18th -19th March 2017**

6. **Promoting digital education**

   University has initiated the process for e-content development of various disciplines

   Initiated the process for starting MOOC and GIAN courses

7. **Swachh Bharat Abhiyan**

   NSS volunteers and Social Work Department regularly organizes awareness and cleanliness drives in the vicinity of the University

8. **Ek Bharat Shresht Bharat**

9. **Unnat Bharat Abhiyaan**

   The University has adopted five villages under Unnat Bharat Abhiyam

10. **Action taken on reducing the legal cases**

    Employees and students Grievance Redressal Forum have been strengthened

11. Plan of Action for promoting the quality of teaching:

- ✓ Faculty is encouraged to attend GOC/Refresher and other academic Workshops.
- ✓ Academic Audit is conducted periodically

12. Planning for Future

a) 3 Years Action Plan

1) Academics

- ✓ Student, Faculty and Credit Mobility across Central University of Kashmir, CUHP and CUJammu as per MOU signed
- ✓ Strengthening of Industry Academia Interface
- ✓ Increase in Intake depending upon the availability of infrastructure
- ✓ Up-gradation of Kendriya Vidyalaya to Senior Secondary Level

Pedagogical Interventions and Technology Interface

- ✓ Experiential & Project based learning to be made compulsory
- ✓ Mentoring of Student Performance to be made regular feature
- ✓ Friday Club Activities to be made rigorous to hunt the talent
- ✓ Learning Teams & Knowledge Forum to be strengthened
- ✓ Industry/Field exposure of students especially in professional courses
- ✓ E-learning system & knowledge repository to be made functional
- ✓ Scope of Career Counselling will be broadened for the benefit of Students
- ✓ Programmes of Studies to be initiated under MOOCs and GIAN
- ✓ Faculty will be trained in the Development of E-Content

II) Research

- ✓ Resource mobilization for establishing research chairs
- ✓ Deepening and strengthening of research in Sciences
- ✓ Strengthening research infrastructure across all Departments through FIST , UGC-SAP, PURSE, ICSSR, DST and other funded programmes/Schemes
- ✓ Faculty to publish two research papers every year in Peer Reviewed Journals
- ✓ Encouraging faculty to file IPs (Patents/Copy Right/GI)

III) Student Support Services

- ✓ Central Placement Cell to be strengthened with Full time Placement Officer
- ✓ Coaching Classes for Competitive Examinations to be made a regular feature.
- ✓ Skill Development Programmes to be initiated through evening Classes
- ✓ Campus Employability Programme to be broadened
- ✓ Increase in Annual Scholarship to Meritorious students
- ✓ Corporate Mentoring of Professional Students
- ✓ Remedial Classes for Weaker Students to be strenghthened
- ✓ Good exposure through advance and market oriented curricula

IV) Accreditation and Rankings

- ✓ NAAC Accreditation and improvement in NIRF Ranking
- ✓ Programme accreditation
- ✓ Strengthening Internal Quality Improvement Programmes in teaching and research
- ✓ Strengthening of Directorate of Internal Quality Assurance (DIQA)

V) Development and Infrastructure

- ✓ Shifting all departments from Temporary Academic Block to Permanent Campus
- ✓ Filling up of all Vacant Positions (teaching/Non-teaching) on rolling basis
- ✓ Directorate of Sports Infrastructure and manpower to be established
- ✓ Health Centre
- ✓ Residential Coaching Academy to be set up
- ✓ Solar Yard to be set up
- ✓ Auditorium to be constructed at new campus
- ✓ Central Library to be constructed
- ✓ Construction of Academic blocks for established School of Studies on the main campus
- ✓ Completion of Hostels, and residential Quarters to be completed

VI) Innovation, Incubation and Entrepreneurship

- ✓ Promoting Incubation and Entrepreneurship on campus
- ✓ Tapping Gross root Innovators
- ✓ Focus on Skill Development
- ✓ Implementation of Prime Minister Yuva Yogna

VII) Intuitional Intervention

- ✓ E-Governance implementation
- ✓ Encouraging non-PhD faculty to complete research through institutional support
- ✓ Research support to faculty members to attend conferences/seminars and undertake research projects
- ✓ Career Advancement of teaching and non-teaching staff to made operational
- ✓ Facilitating Operationalisation of MOUs
- ✓ Strengthening Library Resources

VIII) Collaborations and Linkages : National and International collaborations to be strengthened for students and faculty exchanges

IX) Resource Mobilization through Research and Consultancy

X) Outreach Activities : School Adoption programme to be strengthened

b) 7 Year Strategic Plan

i. Academics

- ✓ New Departments/Centres to be set up
- ✓ Ayush Medical College to be set up
- ✓ Joint Certification and Degree Programmes Programmes to be started

ii. Research

- ✓ Provision for admission of foreign students
- ✓ Creation of at least two Centres of Excellence
- ✓ Strengthening interdisciplinary research culture in the University

iii. Student Support Services

- ✓ Modern sport facilities with World Class Infrastructure

iv. Development and Infrastructure

- ✓ Up-gradation of facilities on campus

v. Intuitional Intervention

- ✓ E-Governance implementation
- ✓ Encouraging non-PhD faculty to complete research through institutional support
- ✓ Research support to faculty members to attend conferences/seminars and undertake research projects compulsorily
- ✓ Career Advancement of teaching and non-teaching staff to be made more smooth

vi. **Collaborations and Linkages :** National and International collaborations to be strengthened for students and faculty exchanges

c) 15 Year Vision

Operationalisation of all approved Schools with dedicated infrastructure on campus
Recognition in research outcome at International level
Research for benefitting society in the emerging areas of technology and other allied areas

1. CUJ has established a Data Centre and it is connected to National Knowledge Network (NKN) through optical fibre link with a bandwidth of 1 GBPS. The University provide 24 hours Network and Authenticated Internet access to all its employees and students placed at different departments of campus, Hostels , Staff Quarters & Visitors to enjoy the flexibility to access web and exchange resourceful information from anywhere within campus. Students and faculty members are making full use of internet connectivity for their study and research purpose.

2. Students and faculty members of CUJ have started registering in the National Digital Library portal and further university is encouraging students to make maximum use of this portal for their study and research work.

3. CUJ is in a process of signing a Service Level Agreement with one of the Depository NDSL Database Management System or CDSL Ventures Limited (CVL) for the implementation of National Academic Depository.

4. CUJ has constituted different team of students, staff and faculty members who has shouldered responsibility to keep aware the nearby village persons for the cash less transaction. University has also organised a workshop to promote cash less transaction.

5. CUJ faculty members have registered themselves in the vidwan database for creation of the expert database.

6. The university is also organising IIT Mumbai Spoken Tutorial classes for their students to learn computer programming and new academic software under NMEICT project.

7. CUJ has created online recruitment portal for recruitment process and also created the online students database for collecting semester marks. CUJ provides all sorts of information through the website.

8. CUJ is trying to implement and promote all sorts of Digital initiatives taken by MHRD and UGC.



DIGITAL INITIATIVES

CIS (Communication and Information Services) an internal IT Department of JNU manages all the central ICT Services of the University.

The following digital initiatives have been taken by the University to ensure transparency, efficiency and speedy delivery of the administrative and academic services to the public, staff, and faculty:

1. ICT Infrastructure and Network

- **JNU Private Cloud**: University has implemented JNU Private Cloud using Open Stack Platform. All central ICT Infrastructure applications and eGovernance applications of the university are hosted on JNU Private Cloud. University has a dedicated data centre for hosting of all central ICT services with a provision to provide 24x7 access to JNU Students, Staff and Faculty. Currently, around 12,000 nodes connected on the JNU Network (**Intranet Channel**), which is being served by Servers, Storage, Switches, Routers, resilient network design and Network Security devices by Communication & Information Services (CIS), JNU. The Core Network of University Data Centre is running onto 10Gbps backbone link speed with an Internet link speed of 1Gbps from NKN.

  Key Features: Highly automated with provision of On-Demand Compute resources allocation for research and other academic purposes. Scalable and Highly Redundant Platform. Software Defined Network (SDN) implemented for secure and flexible access on anywhere any time basis. JNU Private is highly Cost Effective and provides accounted usage of each user/instance through various MIS reports and dashboard.

- **High Speed Local Area Network**: University has laid down around 40.0 KMs OFC **(**Optical Fiber Cable (OFC**)** in multi-ring Topology covering the campus area of 1019 Acre. One of the complex & largest project of the university. University has implemented around 90+ Network Distribution Points in various buildings/units to provide campus wide networking across the Campus. The entire campus of the university network runs over high-speed 10 Gbps OFC backbone

- **Internet Services:** JNU Data Centre also acts as a Network Bridge for connecting NKN Delhi PoP(Point of Presence) and to connect other nine NKN connected institutes adjacent to NU campus. At present, NKN internet bandwidth of 1 Gbps served to JNU is also shared among these nine institutes as well. This Internet bandwidth is significantly used by JNU community in their academic, research and for Video Conferencing Sessions. University accesses various eSchemes Portals of UGC/MHRD, Research & Academic Data repositories, RTI-MIS Portal, NIC eOffice, eProcurement Portal Services hosted over NIC Cloud in

addition to in-house eGovernance applications of the university. University also conducts interviews and lectures of Foreign participants and dignitaries over Skype/Video Conferencing. University has extended WiFi connectivity to all its 19 hostels. Recently, NKN has agreed to upgrade JNU uplink connectivity to 10 Gbps considering the high internet bandwidth usage of JNU. All other required network devices deployed in CIS-JNU Data Centre are already 10Gbps enabled.

- **Main Website and Intranet Portal**: The Main website of the university was redesigned and launched in Year'2012 both in English and Hindi Language. At present, university has around 80 Micro Websites of various Schools/Centres/Departments/Cells, etc. are linked to the Main Website of the university i.e. http://www.jnu.ac.in/. Further, the project to deploy a Content Management based Website both in English & Hindi Language, compliant to Person with Disabilities (PwDs) Guidelines is in the final stage of rollout.

  Key Features: OpenSource Content Management System for De-Centralised Websites and Data Uploads with proper Roles, Authentication and Accountability, User Managed Micro Website for research and academic purposes.

- **Email System:** Integrated with in-house Single Sign On Authentication System for seamless and controlled access to Academics. Institutional eMail address "@jnu.ac.in" to all students, staff and faculty members to access global academic and research resources with Cloud Storage of 30Gb to each user for seamless backup of documents and critical data

- **VPN :** University has established a secure VPN (Virtual Private Network) to access ICT Services over public internet for its system administrators and to some key users among the faculty and staff.

- **Campus Wide WiFi:** University has implemented WiFi facility in the Academic complexes and hostels. Wifi Project consisting of 2000 Access Points is one of the largest single implementation of WiFi Project among Asia as per the OEM feedback. The Wi-Fi is implanted on the latest security and standards of 802.11x and 802.1ac. The implementation of Wifi in the remaining areas of the campus is awaited due approvals from UGC/MHRD.

  Key Features: EduRoam Integration for seamless resources access for academic guests and JNU Users. High Speed Campus Wi-Fi and Internet Highway access. High Speed access to on-campus Compute Infrastructure and Research Data.

- **Campus Wide Surveillance System:** Implemented CCTV and Surveillance System only at the critical areas of the university. The Up-gradation and Migration of the existing System is in process under the Campus Wide CCTVs and Surveillance System alongwith provision to setup a central monitoring & control room

- **Single Sign On (SSO):** Implemented Single Sign On (SSO) to access the Intranet Applications hosted from University's Data Centre

- Implementation of **Digital Signage System** across the University for disseminating the key information to JNU community

- Implemented **360 Degree Imaginary view of the university** and Imaginary view is also made available through JNU website

- Implemented **Biometric based Attendance System**

- Implemented **Access Control System** and real time monitoring system for critical ICT equipments.

- **JNU LMS (Learning Management System)** : Initiated the major project for implementation of ICTs in Teaching /Learning procedures, deliveries by creating the permanent central facilities i.e. Webcasting System, Video conferencing, Learning Management System, Smart Class Room, E-content capturing etc. in the university. The project is under implementation stage.

  Key Features: OpenSource Learning Management system based on proven Moodle Platform to revolutionize the way knowledge is disbursed. Mobile Access and Integration with Real-time Video Conferencing for Virtual Classroom Experience. Video Conferencing enabled Room and Auditoriums for global lecture and talks outreach

- **E-Resources** – The Central Library procured more and more electronic resources in the form of E-Databases, E-books, E-Journals for reaching and making resources accessible to each and every student of the University. Infrastructure for Visually Impaired- Central Library, JNU provided Laptops to all Visually Impaired researchers.

2. Governance Applications

- **eOffice :** Implemented eFile, Knowledge Management System(KMS) , eLeave, eServiceBook, eTour all modules of NIC's eOffice in the university w.e.f. 01.01.2015.

  Key Features : Transparency, Accountability and Confidentiality, Quick disposal of files, systematic and timely, monitoring on pending files, Knowledgebase and Central Repository

  - *Manpower saving after reasonable implementation*
  - *Easy availability of records/EMD Data*
  - *Digitization of Records feature reuse*
  - *Simplification and Data Standardization*
  - *Reducing the use of paper*
  - *Readily Availability of information to the Auditors*
  - *Duty leave for teaching staff through file management system*
  - *KMS document sharing feature at Finance Department*
  - *Exceptional leaves of Saturday Sunday for Group C employees*
  - *eLeave in 24x7 Shift Roaster*
  - *Provision of LTC encashment*
  - *Provision of Increment system for all employees through EMD.*
  - *Posting, workflow and eFile transfer in case of retirement, relieving or transfer.*
  - *Integration of digital signature certificate with File Management System.*
  - *Salary ePaySlip through eOffice.*
  - *Raj bhasha gatividhiyan has also been incorporated to support Hindi language.*

- **Online Consumable Management Systems** implemented at central store and health Centre
- **Online Admission and Registration System:** implemented for JNUEE and CEEB Admission process (pre and Post) and Result processing. JNUEE and CEEB Admission process (Pre and Post) including online applications, Registration of the Students, Result

processing, online Marks sheet, Degree Printing, Hostel No dues, Library registration and Hostel allocation under JNU EduERP initiatives.

- **Implemented Salary Management Software –** NIC's COM DDO Software
- **Implemented RTI-MIS Portal**
- **Implemented Thesis tracking Software at Central Library and all Schools of the University**
- **Implemented Health Centre Pharmacy Inventory Management Software and Online specialist OPD appointments**
- **Implemented Research Projects Management Software (PMS).**
- **Implemented Guest House Booking System and Employees House Allotment system**
- **Implemented Online Recruitment Software for Teaching and Non-Teaching Posts with online payment gateway**
- **Implemented No Dues Clearance System for the superannuated staff**
- **Implemented end to end eProcurement System**
- **UPE-II Online projects submission and Management**
- **Helpdesk Management Software – Implemented for CIS and Engineering Branch**
- **Online Feedback Software – Implemented for Security Section**
- **Implemented online submission of agenda, minutes of meeting documents and communication for EC meetings**
- Implemented the following MHRD eSchemes in the university: (1. Students related grievances/issues "Online Students' Grievance Redressal Portal, 2. AISHE "All India Survey on Higher Education", 3. Uploading and publication of data on the MHRD CU Portal, 4. National eScholarship Portal, 5. FRRO (Foreigner Regional Registration Office), 6. Public Finance Management System (PFMS), 7. Vidwan Project for Expert Database, 8. National Institutional Ranking Framework (NIRF), 9. National Digital Library (NDL), 10. For monitoring and redressal /disposal of public related grievances pertaining to the JNU, 10. The Association of Commonwealth Universities (www.acu.ac.uk), 11. Uploading and publication of data on the MHRD CMSInst Portal, 12. eSchemes Portal Developed by UGC, 13. Know

your University/College portal, 14. Vidwan Project for Expert Database, 15. GIAN Project – Online registration with payment gateway, audio-video capturing and live webcatsing)

3. University Computer Maintenance Cell (UCMC)

University has established a dedicated Computer Maintenance Cell (UCMC) for the maintenance of computer hardware & to provide support for Antivirus, end-user software and end user devices of the university. JNU has also established its university level rate contract for the procurement of frequently used hardware and software items as per the requirement of the university to standardize the endpoints ICT Infrastructure and end devices' operation management.

1. ICT Skill Development Training Programmes

University conducts various trainings, workshops and seminars for the staff, students and faculty on regular basis under it's ICT capability building and eGovernance initiatives. The following are major ICT trainings & workshops are being organized frequently for the last three years:

- Hands-on Training sessions for all the modules of eOffice
- Use of Thesis Tracking System across university by all stakeholders
- Students Online Admissions & Semester Registration System
- Online Consumable and Asset Management System Implementation
- eProcurement and GeM
- Basic and Advance hands-on sessions on MS Office, Networking, Email and Internet
- Use of Hindi Tools in Office working
- Special Trainings & workshops for the Technical Staff of the university on EduERP, CMS, LMS, Cyber Security, Cloud Computing, Open Source Platform and Programming
- Other ICT programmes like Digital Finance Literacy, Digital India Week, Good Governance Day, etc as and when directed by the UGC, MHRD and other agencies of Govt. of India

Central University of Karnataka

Brief Digital Content at CUK

- National Knowledge Network (NKN) 1Gbps leased line internet connection provided under the National Mission on Education through Information and Communication Technology (NMEICT).
- Has facility to conduct virtual classes through video conferencing there by enabling the classes to be conducted from a distant geographical location.
- First Central Universities Common Entrance Test (CUCET) was being organized by CUK.
- Online Admission Process.
- Online recruitment process is being followed.
- Library Services are automated and have large database of e-resources.
- Library has implemented RFID services.
- Student data base is maintained using software.
- Finance account details are maintained using Tally software and payments to vendors are done online.
- Procurement is being done online utilizing Central Public Procurement (CPP) Portal and GeM portal.
- Uses Direct Benefit Transfer.
- Campus Wi-Fi Connect Programme is under process.
- Implementation of National Academic Depository (NAD) is under testing stage.

03/07/17

कुलसचिव / REGISTRAR
कर्नाटक केन्द्रीय विश्वविद्यालय
Central University of Karnataka
गुलबर्गा / GULBARGA.

CENTRAL UNIVERSITY OF KERALA

(Established under the Act of Parliament in 2009)

केंद्रीय विश्वविधयालय, केरल

Kasaragod – 671 316

Digital Initiatives

National Digital Library	Central University of Kerala is already utilizing the services of NDL. Others include 1. DELNET Consortia 2. American Consulate Library Membership 3. Current Science Association Membership 4. Shastri Indo- Canadian Institute Membership
Open Source Library System	The library is automated with KOHA Open Source Library System.
National Academic Depository	The Central University of Kerala has already been signed an MoU with NAD to make available academic awards and shall help in validating their authenticity, their safe storage and easy retrieval. The University has decided to select NSDL Database Management Limited(NDML) as the depository for utilizing the services of NAD. Further Steps are in process.
e-Shodh Sindhu	The Central University of Kerala already utilizing the services through INFLIBNET. (UGC Infonet Consortia)
Campus Connectivity	The Central University of Kerala has started the Campus Connect WiFi supported by MHRD. The process of lying the optical fibre and provision of the WiFi is currently under process including recently constructed permanent academic buildings.
e-Vidwan	The Central University of Kerala already utilizing the services through INFLIBNET.
Other digital initiative at Central University of Kerala	• **File Tracking System** FTS is a web based application and has been implemented at Central University of Kerala administration to help the tracking of files. The system has been developed indigenously by the IT wing of the University. The File Tracking System enables the users to track the position of files in the CUK. • **E-Filing System** Central University of Kerala is **currently in the process of implementing** E-Filing system from NIC. The implementation of software would help in speeding up the file processing and thereby bring in more accountability to administration. • **Educational Multimedia Research Centre** Central University of Kerala is in the **process of proposing an Educational Multimedia Research Centre** which will help in recording/editing and distribution of online video tutorials to prospective students. • **Project Management System** Central University of Kerala is currently **in the process of procuring Project Management System** to automate the projects implemented at Central University of Kerala with funding from various agencies like SERB, DST etc. This would eliminate administrative delay in project execution like time required for submission of Utilization Certificate/Statement of Expenditure certificate and would also ensure transparency.

Contd. . . 2

SWAYAM	The Academic Council of Central University of Kerala has already been approved to start IT Massive Open Online Courses (MOOCS) through SWAYAM on 19th December 2016. It has also been approved to provide the provision/ flexibility for the students to select an elective course from the MOOC courses provided by other institutes. However due to the unavailability of recording room and equipment facility the university **MOOC content development is in the infant stage. We have to travel 10 km to reach the nearby recording center and they may charge for recording.**
Other digital education	• **Course Management System(C-SOFT)** Central University Kerala has procured course management system to cater to the needs of online generation of students grading and marks. The system is being partially implemented in few departments of the University. • **Moodle Learning Management System** Central University of Kerala has partially implemented Moodle based course management system which helps in distribution of study content through online media. The students are able to access the study material from anywhere. Further quiz/tests etc can be conducted online. The feedback from students can also be collected through online feedback form.
Remote Class room facility	Central University has a video conference facility which can be utilized for conducting remote class/discussion with eminent professors/academicians.
Virtual Labs **Talk to a Teacher** **e-Acharya** **E-Kalpa** **FOSSEE** **Central cloud Infrastructure**	Will be utilized in the near future

5/7/17

प्रो. (डॉ). जी.गोप कुमार
Prof. (Dr.) G. Gopa Kumar
कुलपति / Vice-Chancellor
केरल केंद्रीय विश्वविद्यालय
Central University of Kerala
तेजस्विनी हिल्स, पेरिया डाक
Tejaswini Hills, Periye P.O.
कासरगोड / Kasaragod- 671 316

Summary of the Work Progress in Creating Digital Content

by Manipur University

Manipur University has been taking a leading role in North East India in creating digital content for the enhancement of higher education with participation in the National Mission for Education through Information Communication Technology (NMEICT) through Educational Multimedia Research Centre (EMRC), Manipur University which is one among the 21 media centres in the country working under Consortium for Education Communication, IUAC, UGC. EMRC, Manipur University was established in 1989.

The main objectives of the EMRC are

- Production and development of educational television video (ETV) programmes and e-content courseware of high quality in various disciplines for knowledge enhancement in higher education through **Information Communication Technology (ICT).**
- Introduction of online courses (MOOC) on **SWAYAM.**

Activities Highlights

i) Massive Open Online Course (MOOC)

Understanding MOOC

MOOC or Massive Open Online Course is a recently launched Online Course on **SWAYAM** as a part of Academic endeavour taken up by the MHRD, Govt. of India. EMRC, Manipur University involves in offering these courses. As per *The Gazette of India* Part III-Section 4 dated 20th July 2016, the Host Institution shall be responsible for evaluating the students registered for the MOOCs course (Refer to Clause 5 and Clause 7). The students enrolled in the MOOCs shall be evaluated based on their performances and will be certified by the Manipur University. The process for obtaining the statutory approval of the Academic Council for Certification in the name of the Manipur University for these courses has already initiated.

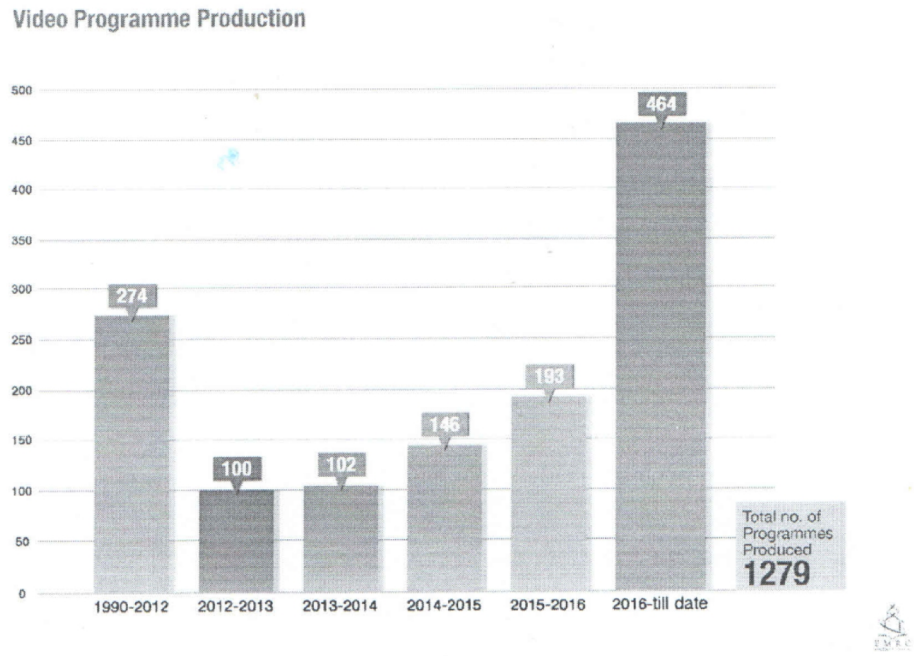
MOOC on Archaeological Anthropology

Based on the Choice Based Credit System, a twelve weeks long MOOC on Archaeological Anthropology developed by the Centre was launched on SWAYAM from 14th November 2016 – 3rd February, 2017 having a total enrolment of 295 learners. The same course will be reopened from 10th July, 2017 – 7th October, 2017.

More courses on Anthropology, Human Rights, Agriculture, Physical Education and Biochemistry will be opened soon to the learners.

ii) Programme Production

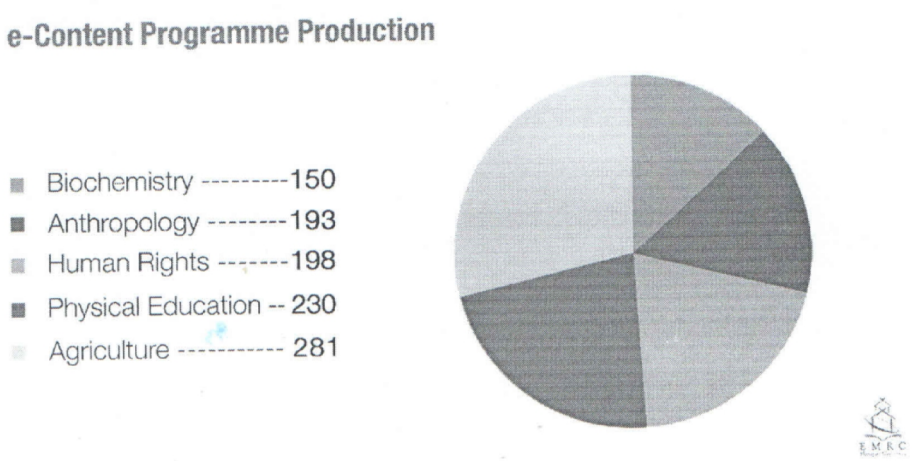
a) Educational Video Programme



The Centre has so far produced 1279 video programmes (till date). During the period between 1st April 2016 to 25th June 2017, the centre produced 464 educational video programmes.

iii) e-Content Development under National Mission on Education through Information Communication Technology (NME-ICT) Phase I & II

As a part of the project undertaken to develop e-Content under **NME-ICT Phase I & II,** the Centre has been developing e-Content since 2009 based on the undergraduate syllabus prepared by the Manipur University which is in compliance with UGC model curriculum. Till date it has developed 1078 e-Content programmes on disciplines namely Anthropology (193 modules), Human Rights (198 modules), Agriculture (281 modules), Physical Education (230 modules in which 24 modules were given to EMRC, Dibrugarh) and Biochemistry (150 modules).



a) Anthropology

The e-Content packaging of 193 modules on the subject Anthropology developed by the centre was successfully launched on 28th January, 2014 by the then MHRD Minister Dr. Pallam Raju at CEC. Prof. S. Jibonkumar, Dept. of Anthropology, Manipur University was the Principal Co-ordinator. Faculties from different universities and colleges of the NER were involved.

b) Human Rights

The e-Content packaging of 198 modules on the subject Human Rights developed by the centre was successfully completed in 2015. Dr. Pramod, LMS Law College and Dr. O. Jitendra of Centre for Study of Human Rights, Manipur University were the course Coordinators. Other universities and colleges of the North Eastern Region were involved.

c) B.Sc. Agriculture

The e-Content packaging of 281 modules on the subject Agriculture developed by the centre was successfully completed in March 2017. It was developed with faculties of Central Agricultural University (CAU), Imphal along with Prof. N. Debananda, Dept. of Biochemistry. The centre worked in joint collaboration with Madurai Kamraj University in developing the four years degree course in Agriculture.

d) B. P.Ed. (Four years integrated course)

The e-Content packaging of 230 modules on the Bachelor of Arts in Physical Education developed by the centre was successfully completed in June 2017. All the faculty members of the Dept. of Physical Education and Sports Sciences, Manipur University were actively involved in the development of the programmes. The entire four years integrated course on developing the e-Content courseware is a joint venture with EMRC, Punjab University, Patiala.

e) Biochemistry

The e-content packaging on the subject Biochemistry will be completing in July 2017.

iv) EDUSAT-SIT live lecture programmes

Title of the Programme	Subject Expert
1. Look East Policy	Prof. Amar Yumnam Dept. of Economics Manipur University
2. Indo- Myanmar Border Trade	Dr.Ch. Priyoranjan Dept. of Economics Manipur University
3. Right to Information Act, 2005 4. Consumers Rights	Dr. Ch. Narendra Singh, Faculty, LMS Law College, Imphal
5. Violence against Women, 6. Universal Periodic Review-I 7. Universal Periodic Review-II	Babloo Loitongbam Executive Director Human Rights Alert
8. Lecture on Demand	Faculty Members of National School of Drama, New Delhi

Through the EDUSAT-SIT live lectures, the experts interacted with students watching the programmes in other media centres of other universities in the country. Students of the Department of Journalism and Mass Communication, Manipur Institute of Management Studies, Dept. of Political Science, Dept. of Economics etc. of Manipur University too participated in the live classes.

v) Online Courses through EDUSAT-SIT

Title of the Course	Name of the Expert
Scriptwriting for Film and Television (7th December 2009-22nd January 2010)	Dr. Subha D. Mollick Dept. of Mass Communication St. Zaviers' College, Kolkatta
Editing for Film and Television (3rd January 2011-18th February 2011)	Shri Ashoke Vishwanathan Eminent Film Personality

vi) Milestones

EMRC created a history by signing Memorandum of Understanding (MoU) with the Doordarshan Kendra, Imphal and two other powerful cable television network service providers, Information Service Television Network (ISTV) and Impact TV Cable Network on the 29th September, 2015. The programmes produced by the centre have since been telecast on DDK, ISTV and Impact Television Network.

The centre has started producing programmes in Manipuri language for local viewers. Two programmes namely, "Sami Lanmi Phi: The Shawl of Honour" and "Chadong: A Village in Deluge" have been produced both in English and Manipuri languages in 2016.

vii) Film Festival

Bamboo: The 21st Century Timber, Overcoming the Barriers, The Rice Husk Stove – programmes produced by the Centre were screened in the Prakriti Film festival, 2015, held at St. Zaviers' College Auditorium, Kolkatta from 23rd-25th March 2015.

viii) Awards Received

a) *Tupis and Nanas*, a documentary video was awarded the Best video programme in the UGC-CEC Educational Video Programme Competition in 1997.

b) ***Imphal Battle***, *Food Chain*, *Meitei Women in Unorganised Sector* received the award for Best Graphics, Best Script, Best Programmes respectively in the UGC-CEC Educational Video Programme Competition in 1998.

c) ***Nupi Keithel, Learning First Aid, Dancing Hands, Pitchfork Bifurcation*** received the Award for Best Programme, Citation for Graphics, Best Editing, Citation for Script respectively in the UGC-CEC Educational Video Programme Competition in 1999.

d) ***Feathered Guests*** received the Award for Best Programme in the UGC-CEC Educational Video Programme Competition in 2000.

e) ***Waiyu of Chothe*** received the Award for Best Programme in the UGC-CEC Educational Video Programme Competition in 2003.

f) ***The Miller of Haipi***, a documentary on the creative and productive use of water resource in a small tribal village in the hills of Haipi, a village in Manipur was awarded the Best video programme in the UGC-CEC Educational Video Programme Competition in 2006.

g) ***Gender Equality: A light in the Darkness***, a documentary on the meaning of gender and women's rights in India received citation for best Presenter/Anchor in May 2008 in the 19th UGC-CEC Educational Video Competition.

h) ***Chongmou Kipui (Kuki Marriage)*** a documentary on the marriage ceremony of the Kukis and ***When they roar like lions***, an ethnographic film on the Poumai tribe of Manipur received certificate of honour in the International Festival of Films on Tribal Art and Culture held in Indore in February 2008.

i) ***Kang-Indigenous Game of Manipur-II***, received the award for the Best Video Programme in Graphics/ Animation/Special Effect in the 21st UGC-CEC Educational Video Competition in 2011.

viii) Internship

Name of the Student	**Name of the Institution**
1. Francis Lohrii (M.A.)	Centre for Media and Cultural studies, TISS, Bombay
2. Bijita Khangjrakpam (B.A)	CMR, Centre for Media Studies, Bangalore
3. N. Aruna Chanu (M.A)	Guru Nanak Dev University, Amritsar,Department of Journalism & Mass Communication, Regional Campus, Jalandhar
4. N. Satyam Singh (M.A)	Dept. of Journalism and Mass Communication, Manipur University

The internship of the students involved gaining knowledge in the art of film making by assisting in the production of educational video programme.

ix) MOOC Orientation Programme Participation

1. Dr. P. Binodini, Associate Prof. , Department of Anthropology, D. M. College of Science, Imphal, (PI of Archaeological Anthropology) and staffs of EMRC attended the workshop and orientation on Massive Open Online Courses (MOOCS) at CEC, New Delhi in 10th -12th March 2016 and in 1st August 2016.

2. Dr. P. Binodini, Associate Prof. , Department of Anthropology, D. M. College of Science, Imphal, (PI of Archaeological Anthropology) and staffs of EMRC attended the workshop and orientation on Massive Open Online Courses (MOOCS) at CEC, New Delhi in 1st August 2016 and in 1st August 2016.

3. On 2nd March 2017, Dr. N. Premchand, Director, EMRC and Dr. P. Binodini (PI, Archaeological Anthropology) participated in the one day workshop on content delivery on Swayam at Vigyan Bhawan, New Delhi.

x) Workshops

Name of the Workshop	**Name of the Expert**
1. **Documentation and Digital Archiving** (28th-30th March 2012)	**Indian Folklore Support Centre, Chennai**

Participants included researchers from Jharkhand University, Jharkhand, Guwahati University, Assam, Kohima Science College, Nagaland, North Eastern Hill University, Shillong, Manipur University and the employees of the centre.

2. **Documentary Film Making** (6th March 2013-10th March 2013)	**Ashoke Vishwanathan Film Personality**

Fifty participants attended the workshop.

3. **Fundamentals of Digital Film Making and Cinematography** (6th – 11th October, 2013) Fifty six participants attended the workshop	**Bharat Nerkar Faculty of FTII, Pune**
4. **The Art of Visual Effects on Film Making** (16th February 2016)	**Lawrence Chandam Video Generalist cum Motion Graphics, Cause +FX, Auckland, New Zealand**

Faculty members and students from Department of Mass Communication and Journalism, Manipur University participated in the workshop.

x) **Outreach Programmes**

An Outreach Programme on the topic "Information and Communication Technologies in the field of Education" was conducted in South East College, Komlathabi, Chandel, Manipur on 27th January 2016. The complete set of e-content courseware on Anthropology was presented to the principal of the college.

xi) **Archive**

The Centre has its own well-maintained Archive in which there are more than 900 Educational video programmes along with a good collection of Documentaries and more than 50 Feature films collected from various sources. Footages of programmes that were produced are also available in the archive. From the Archive of the centre, on the request of United States Library of Congress, a total of 15 educational video programmes produced by the centre showcasing the culture of the state were given to the representative of the Library of Congress for its South Asian Collections on 3rd July 2013. The programmes are *Dance (Jagoi), Huyen Lallong, Pung Cholom, Mukna, Rath Jatra, Heikru Hidongba, Chakan Gan Ngai, Chavang Kut, Kumbi Inakhunbi, Imphal Battle 1944, Women Trader, Woman Writers of Manipur, Meitei Women in unorganised sector* etc.

FUTURE TARGETS

Massive Open Online Courses

The centre will be offering various courses on Anthropology and Human Rights during the year 2017-2018. Preparations for making the courses online are taken up on a positive note.

Many more open online courses on various disciplines namely Manipuri Literature, Manipuri dance, Folklore, Performance Studies, Cultural studies, Thang-Ta: The armed martial art of Manipur, Social Exclusion and Inclusive Policy Studies etc. will be launched in the near future with expertise from various departments of the University.

Production Target (2017-2018)

The centre has a target of producing 450 video programmes (Classroom-based and enrichment programmes) and 400 e-Content programmes during 2017-2018. The centre will be mainly focusing on the production of video programmes and completing e-Content packaging on Biochemistry for undergraduate students under the 'CEC-NMEICT project', phase II. The faculty members of the Department of Biochemistry, Manipur University are engaged in the project.

P.G. Diploma Course in Electronic Media

The centre has a vision of offering P.G. Diploma Courses in Electronic Media by fulfilling the requirements as per UGC guidelines in the near future.

Introduction of DTH (SWAYAM PRABHA)

In the second phase of the introduction of DTH facilities, the centre will provide educational channels to the viewers and monitor the DTH for smooth delivery of the programmes.

महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय

MAHATMA GANDHI ANTARRASHTRIYA HINDI VISHWAVIDYALAYA

(संसद द्वारा पारित अधिनियम 1997, क्रमांक 3 के अंतर्गत स्थापित केंद्रीय विश्वविद्यालय)

(A Central University established by Parliament by Act No. 3 of 1997)

ज्ञान शांति मैत्री

प्रो. आनंद वर्धन शर्मा

प्रतिकुलपति

Prof. Anand Vardhan Sharma

Pro-Vice-Chancellor

दूरभाष/Phone: +91-7152-252148

क्रमांक 001/2003/सा.प./06-07/18

दिनांक : 30.06.2017

प्रति,

श्री सुखबीर सिंह संधु, आई.ए.एस
संयुक्त सचिव (केंद्रीय विश्वविद्यालय एवं भाषा)
मानव संसाधन विकास मंत्रालय
उच्चतर शिक्षा विभाग, शास्त्री भवन
नई दिल्ली- 110115

संदर्भ : क्र. D.O.No.F.19-71/2017-CU-Cdn दिनांक 27.06.2017

महोदय,

उपरोक्त संदर्भित पत्र के अनुसरण में विदित हो कि महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय, वर्धा की स्थापना भारत की संसद में 1996 में पारित अध्यादेश के अंतर्गत महात्मा गांधी की कर्मभूमि वर्धा में सन् 1997 में की गई। वर्तमान में विश्वविद्यालय के मुख्यालय के अतिरिक्त दो अन्य क्षेत्रीय केंद्र- इलाहाबाद व कोलकाता में संचालित किए जा रहे हैं। इसके साथ ही दूरशिक्षा निदेशालय भी वर्धा परिसर से ही संचालित हो रहा है।

विश्वविद्यालय में आठ विद्यापीठ/केंद्र और 27 विभागों के अंतर्गत संचालित किए जा रहे पाठ्यक्रमों की संख्या 107 है। 212 एकड़ के परिक्षेत्र में फैला विश्वविद्यालय का परिसर हरीतिमायुक्त है, जहाँ मार्च 2017 तक 1824 विद्यार्थी अध्ययनरत थे। विश्वविद्यालय में वर्तमान में 81 शैक्षणिक एवं 97 गैरशैक्षणिक कर्मी कार्यरत हैं।

अध्ययन-अध्यापन के साथ विश्वविद्यालय प्रकाशन और शोध के क्षेत्र में निरंतर नए कीर्तिमान स्थापित कर रहा है। भारतीय एवं विदेशी विद्यार्थियों के लिए निर्मित पाठ्यक्रमों में विश्वविद्यालय ने अत्याधुनिक तकनीकों को सम्मिलित किया है, जिसके परिणामस्वरूप उच्चशिक्षा के क्षेत्र में डिजिटल पहलकदमी की दृष्टि से विश्वविद्यालय अग्रणी बन चुका है।

इसके उदाहरण निम्नवत हैं-

1. **विश्वविद्यालय द्वारा ईपीजी पाठशाला के अंतर्गत तैयार की गई डिजिटल सामग्री-**
विदित हो कि महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय को ईपीजी पाठशाला के अंतर्गत हिंदी विषय के स्नातकोत्तर पाठ्यक्रम के 07 प्रश्नपत्रों (प्रत्येक प्रश्नपत्र की 40 इकाइयाँ) से संबंधित डिजिटल सामग्री तैयार करने का दायित्व विगत वर्ष सौंपा गया था। यह प्रश्नपत्र इस प्रकार थे- 1. मध्यकालीन हिंदी कविता,

पोस्टः हिंदी विश्वविद्यालय, गांधी हिल्स, वर्धा-442001 (महाराष्ट्र), भारत
Post: Hindi Vishwavidyalaya, Gandhi Hills, Wardha-442001 (Maharashtra), INDIA
ई-मेल/E-mail: pvctomgahv@gmail.com; वेबसाइट/Website: www.hindivishwa.org

2. आधुनिक हिंदी कविता-1, 3. कथेतर साहित्य, 4. भारतीय काव्यशास्त्र, 5. भाषा विज्ञान, 6. लोक साहित्य, 7 नाटक एवं रंगमंच। इन प्रश्नपत्रों के अलग-अलग समन्वयक नियुक्त किए गए, जिनके नाम क्रमशः इस प्रकार हैं- 1. प्रो. के.के.सिंह, 2. प्रो. चित्तरंजन मिश्र, 3. प्रो. सूरज पालीवाल, 4. प्रो. हनुमान प्रसाद शुक्ल, 5. प्रो. उमाशंकर उपाध्याय, 6. प्रो. देवराज, 7. प्रो. रमेश गौतम। कार्यक्रम के मुख्य अन्वेषक प्रो. गिरीश्वर मिश्र, कुलपति, महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय, वर्धा व सह-मुख्य अन्वेषक प्रो. आनंद वर्धन शर्मा, प्रतिकुलपति, महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय, वर्धा हैं।

विश्वविद्यालय ने तय समय सीमा व बजट के अंतर्गत उक्त परियोजना को पूरा किया। विशिष्ट बात यह रही कि विश्वविद्यालय ने ध्वन्यांकन, छायांकन एवं संपादन (Audio –Visual Recording) का समस्त कार्य विश्वविद्यालय स्थित बाबू राव विष्णु पराड़कर मीडिया लैब में सम्पन्न किया। उक्त ईपाठ सामग्री विश्वविद्यालय के महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय के अध्यापकों के साथ-साथ देश के अन्य शैक्षणिक संस्थानों में कार्यरत अध्यापकों एवं लेखकों द्वारा तैयार की गई है। उक्त पाठयसामग्री ईपीजी पाठशाला की वेबसाइट एवं यूट्यूब पर भी उपलब्ध है। यह विश्वविद्यालय की एक बड़ी सफलता है।

2. लेबोरेटरी इन इनफॉरमेटिक्स फॉर द लिबरल आर्ट (LILA)

विश्वविद्यालय ने अपने स्थापना काल से सूचना प्रोद्यौगिकी से संबंधित गतिविधियों के लिए एक केंद्रीय संस्थान के रूप में लेबोरेटरी इन इनफॉरमेटिक्स फॉर द लिबरल आर्ट (LILA) की स्थापना की। यह प्रयोगशाला सूचना प्रौद्योगिकी से संबंधित शिक्षण-प्रशिक्षण अनुसंधान और डिजिटल गतिविधियों से संबंधित क्रियाकलापों का संचालन करती है।

लीला प्रयोगशाला द्वारा वेतन पंजिका, प्रवेश प्रणाली, दूरशिक्षा प्रवेश प्रणाली, विभागीय पुस्तकालय प्रबंधन सॉफ्टवेयर तैयार किए गए हैं, जिन्हें उपयोग में लाया जा रहा है। इसके अतिरिक्त लीला द्वारा विश्वविद्यालय के विभिन्न विभागों के लिए कार्यालय स्वचालन उपकरण के लिए भी कार्य किया जा रहा है।

शोधार्थियों की शोध संबंधी सामग्री को अपलोड करने के लिए डी-स्पेस सर्वर तैयार किया गया है, जिसको नेशनल डिजिटल लाइब्रेरी (एनडीएल) से जोड़ा गया है।

अरनेट के सहयोग से EDUROM Server का इंस्टालेशन भी विश्वविद्यालय में किया जा चुका है, इसमें एक ही लॉगइन आईडी और पासवर्ड से विद्यार्थी/शिक्षक संसार के किसी भी स्थान से इंटरनेट का उपयोग कर सकता है। पाठ्यक्रमों में सूचना प्रौद्योगिकी के घटकों को पूर्ण करना लीला के दायित्वों में से एक है।

विश्वविद्यालय की दो प्रमुख वेबसाइट्स hindivishwa.org एवं hindisamay.com हैं। विश्वविद्यालय से संबंधित संपूर्ण जानकारी hindivishwa.org पर उपलब्ध है।

हिंदीसमयडॉटकॉम विश्वविद्यालय का एक अधुनातन प्रयोग है, जिसमें अब तक हिंदी साहित्य से संबंधित 6 लाख से अधिक पृष्ठ समाहित किए जा चुके हैं और पाक्षिक रूप से इसे नवीनीकृत किया जाता है। हिंदी की सबसे अधिक देखी जाने वाली वेबसाइट के रूप में हिंदीसमयडॉटकॉम को चिह्नित किया गया है। गूगल के एक विश्लेषण के अनुसार प्रतिदिन 5 से 6 हजार व्यक्ति प्रतिदिन इस वेबसाइट पर डिजिटल सामग्री का प्रेक्षण करते हैं।

3. साफ्टवेयर निर्माण -

विश्वविद्यालय के भाषा विद्यापीठ के भाषा प्रौद्योगिकी एवं कम्प्यूटेशनल भाषाविज्ञान विभाग द्वारा कुशल एवं सक्षम नामक हिंदी वर्तनी जांचक साफ्टवेयर का निर्माण किया गया है जो हिंदी के अध्येताओं के लिए अत्यंत उपयोगी है।

4. **आओ हिंदी सीखें श्रृंखला -**

विश्वविद्यालय ने विदेशी विद्यार्थियों के लिए आओ हिंदी सीखें श्रृंखला के अंतर्गत अनेक डिजिटल पाठ तैयार किए हैं, जिनकी सहायता से हिंदी भाषा को सीखने में सरलता होती है। वैश्विक स्तर पर हिंदी के प्रसार-प्रचार के लिए यह एक सराहनीय पहल है।

5. विश्वविद्यालय अपने बाबू राव विष्णु पराड़कर मीडिया लैब स्थित स्टूडियो में निरंतर विशिष्ट विद्वानों का व्याख्यान एवं साहित्यकारों का रचनापाठ, संवाद एवं साक्षात्कार ध्वन्यांकित एवं छायांकित करता करता है और उसे अपनी वेबसाइट स्थित मीडिया गैलरी और यूट्यूब पर भी अपलोड करता है ताकि जनसामान्य उसका अधिक से अधिक लाभ उठा सकें।

6. **लघु फिल्मों का निर्माण-**

विश्वविद्यालय के विद्यार्थियों द्वारा जनचेतना के लिए राष्ट्रीय महत्व के मुद्दों पर अनेक लघु फिल्मों का निर्माण किया गया है। हाल ही में महाराष्ट्र सरकार द्वारा पर्यावरण प्रदूषण पर बनी एक लघु फिल्म को सांत्वना पुरस्कार भी प्राप्त हुआ है। विद्यार्थियों ने स्वच्छ भारत अभियान आदि विषयों पर भी लघु फिल्मों का निर्माण किया है।

7. डिजिटल पहलकदमी के तहत विश्वविद्यालय के समस्त पाठ्यक्रमों में कम्प्यूटर का अध्ययन करना प्रत्येक विद्यार्थी के लिए अनिवार्य है।

8. विश्वविद्यालय अपने समस्त परिपत्रों/आदेशों और सूचनाओं को अपनी वेबसाइट पर प्रतिदिन अद्यतन और नवीनीकृत करता है।

9. विश्वविद्यालय परिसर पूर्णतः वाईफाई हो चुका है।

10. यह भी उल्लेखनीय है कि विश्वविद्यालय द्वारा संचालित स्नातक शिक्षा शास्त्र और स्नातकोत्तर प्रबंधन विषय की पाठ्यसामग्री वेबसाइट पर अपलोडेड है, जिसका उपयोग विद्यार्थी कर सकते हैं। यह पाठ्यसामग्री पूरी तरह हिंदी में तैयार की गई है।

11. विश्वविद्यालय द्वारा जो व्याख्यान मीडिया गैलरी एवं यूट्यूब पर अपलोड किए गए हैं उनमें विशेष रूप से पत्रकारिता और शोधप्रविधि से संबंधित व्याख्यान हैं। स्वयं विश्वविद्यालय के कुलपति प्रो. गिरीश्वर मिश्र के व्याख्यान मीडिया गैलरी पर अपलोड किए गए हैं।

डिजिटल क्रांति के इस युग में महात्मा गांधी अंतरराष्ट्रीय हिंदी विश्वविद्यालय द्वारा की गई यह पहल अनूठी है और निरंतर इस दिशा में विश्वविद्यालय कार्यरत है। विश्वविद्यालय ने स्वयं पहल करते हुए विश्वविद्यालय अनुदान आयोग और भारतीय सांस्कृतिक संबंध परिषद् को भारत शास्त्र से संबंधित ई-कन्टेंट सामग्री तैयार करने का सुझाव व प्रस्ताव भी दिया है।

सधन्यवाद

भवदीय,

30.06.2017

(प्रो. आनंद वर्धन शर्मा)

Initiatives taken in the field of digitization in Mizoram University

A. Campus Connectivity:

1. The University has OFC based campus LAN with more than 1200 nodes.

2. The University is included in MHRD funded full Campus Wifi project and necessary actions such as site survey, network design, placing P.O, etc. had been taken. Delivery of network equipment by the vendors is awaited.

3. The University is utilizing 1gbps Internet connection from NKN.

B. Office Automation:

1. Finance department is computerized. Cashless transaction had been implemented in the University.

2. Health Centre of the University had been computerized. Doctor's Prescription, issue of medicine, inventory, etc. are done through the system. Patients can see their prescription records and laboratory test results through campus LAN.

3. Employee Service Books are also maintained in electronic formats and employee can view and update personal fields in the service book through employee self-portal. Online leave application and approval has been introduced for all the employees. Online attendance submission for all employees is also in use. Using mobile android apps, employee can also view service book and apply leave.

4. Bulk SMS messaging system for giving information to employees and students is implemented.

5. Examination department is computerized. Pre-examination works, result processing and online result publishing is managed by web-based Exam Software.

6. As per MHRD instruction, admission to all courses is done in online mode only. Online fee payment is incorporated in Admission portal.

7. Management of university hostels is also computerized. Hostel authorities can generate MIS in various formats.

8. Document Management System is in use, in which different departments/sections stored soft copies of their documents, which can be accessible only by permitted employees.

9. Online PBAS management for teachers and online students feedback system (IQAC) is also implemented.

C. Academic Activities:

1. e-Learning module has been developed as part of the University Management System (UMS) and it is ready for use by teachers and students.

2. Students are provided login accounts to UMS and they can view class attendance, exam marks, etc.

3. The University is actively participating in IIRS Outreach Programmes through A-View software.

4. Using DSpace software, all Ph.D. and M.Phils. dissertations are made accessible within the campus.

5. The University is registered in National Digital Library (NDL) and all faculty members had been registered as users in the system.

6. NPTEL videos lectures and tutorials are downloaded and made available for access in University Intranet.

7. Teachers are utilizing URKUND Antiplagiarism software provided by INFLIBNET Centre.

8. The University has taken initiatives in NAD and is in the final stage for signing of MoU with service provider.

9. The Mizoram University wishes to share the effective and useful use of Shodhganga depositories in particular the Theses available in the country. The students and teachers are using the contents available at the portal which is well linked to the Mizoram University website.

D. Central Library

1. The entire library holdings have been made available in machine readable catalogue and computerized bibliographic information of library holdings have been made available for users' searching throughout the campus through Local Area Network (intranet) using WebOPAC.

2. Automated circulation system using barcode technology provides easy and prompt service to the users.

3. Digitization of Mizoram University's own documents and publications for setting up of an 'Institutional Repository'. The repository provides free access to all types of institutional research outputs within the campus network (Intranet).

4. Computerized Braille System for blind students.

5. Electro-magnetic and Radio Frequency Identification (RFID) Library management system for identification, security, tracking and automated handling of Library materials had been implemented.

6. Existing CD/DVD contents along with the bibliographic record of the books is appended. This is made available for the users to easily access the digital data contents from WebOPAC throughout the campus network (Intranet).

7. RFID Proximity Visitors Attendance System had been introduced and implemented to replace the manual hand written Visitor's Registers.

8. Library upgraded its existing Library Management Software by integrating an SMS & E-mail Alert System. The new system sent SMS & Email alert for every transaction to the users i.e. issue, return, renewal, etc of books with necessary information. For overdue books, reminder is sent to the user along with the fine amount.

Reference: Letter D.O. NO. F.1-1/2017 (Secy) dt 3.7.2017.

Subject: "National Convention on Digital Initiatives for Higher Education" on 8th, 9th & 10th July 2017 at Vigyan Bhavan, Bhawan, New Delhi

Central University of Punjab, Bathinda

Background Note

a. **Digital Initiatives:** The University has initiated various digitally-enabled activities in different sections of the university. SKYPE/Video Conferencing is being used in the interviews (for ex-India applicants) and during Meetings with members of AC/EC/FC who can't visit Bathinda. The Online Complaint System has been implemented for technical complaints. Purchase of e-office manager software is under process. Recruitment process is totally through online mode. Smart Card for students/faculty/staff serves as ID card and access to high security zones. In-house University Management System (partially implemented; full operation is in process). All monetary transactions are being done through digital mode. CUP was ranked at 8th position in VISAKA in the country. Point-of-sale (POS) machines have been installed in Finance section and in Mess and Canteen. We have introduced Fully Online Admissions & Counselling system in addition to the fully automated Examination system.

b. **Innovative methods for enhancing teaching-learning process:** University has E-classroom(s) equipped with latest digital equipments. Live interactive audio-video lectures to make the teaching and learning more interesting. University is responsible for e-PG paathshaala in Environment Science & Technology. We are in process of adopting a) MOOCs and (b) e-PG paathshala. The Language Laboratory has been set up to improve the communication skills of the students/teachers. It has been observed that all of these innovative practices improve the overall learning abilities of students.

c. **Innovations in improving the administration of institutions:** We are using Biometric system for attendance. The Online Leave Management System has been implemented to promote the culture of paperless work. Most of the inter-department communication in the university is through email. In another initiative, Smart Card system for students/faculty/staff which serves as ID card, has been implemented.

d. **Measures for promoting research:** The University has established more than 30 laboratories and a Central Instrumentation Laboratory to provide high-end research facilities to its faculty and students. We have introduced Research Awards for innovative faculty members who produce outstanding research achievements. Research Awards are given to the faculty of different disciplines in which research is being carried out at CUPB. In addition, best teacher award was started in 2015. These awards are given to the faculty by following the policy approved by EC. The research facilities of CUPB have been open to be used by the researchers from established universities of the region. RFID enabled University Library is providing automated self-service facility. It is also equipped with an advanced systems and modern facilities like CCTV surveillance etc.

e. **Major efforts at involving with the community for improving livelihoods:** The University have adopted 10 villages for holistic and educational development. Computer Literacy Programme for senior citizens is a regular feature of the university. In 6 batches, 75 senior citizens had participated and got training in computer basics. Under *Unnat Bharat Abhyiaan*, students from local schools and colleges visit the university Laboratories, Library etc. and make use of facilities available at CUPB. Provision of Soil Health Cards for rural people (in adopted villages) has been started.

f. **Imparting digital education:** -----same as mentioned in point No. 1 & 2----------

g. **Swachh Bharat Abhiyaan:** Students, faculty and staff actively participated in this initiative of the UGC/MHRD. Progress of the events undertaken were also uploaded on the Govt. portal, in the form of photographs/reports. Further, to improve the hygiene standards of the residents of local villages, various lectures were delivered by the faculty of the university.

h. Ek Bharat Shreshtha Bharat:

University campus is mini-India as we have students from 26 states, staff from 11 states and faculty from 18 states. As per the directions of MHRD vide D.O. No.F10-12/2017-CU Cdn dt March 10, 2017, following activities were organized under the *Ek Bharat Shreshtha Bharat*:

- National Unity Week was held on 6.11.2016. Students of 9 states participated in this event.
- Food Carnival (Foundation Week Celebrations, 22.2.2017); an Event was organized to enable the students to share their foods with each other.
- Unity in Diversity Programme- Bharat Darshan (Foundation Week Celebrations, 27.2.2017)

i. Unnat Bharat Abhiyaan: Under the initiative of Unnat Bharat Abhyiaan, students from local schools and colleges visit the university Laboratories, Library etc. and make use of facilities available at CUPB. The university has planned and is actively working on the health related issues of local population involving the testing of parameters i.e. Ground and surface water, Soil health, Food grown in the area, Human health through testing of relevant parameters of the blood samples. FIT Kits have also been procured from USA for early detection of colon cancer in the residents of these villages. Provision of Soil Health Cards for rural people (in adopted villages) has been started.

j. Action taken on reducing the legal cases: We have fully robust and transparent system in administration, finance, recruitment, admission, purchase and in each section of the university. Every detail is uploaded on the university website from time to time. University responds to every RTI within the stipulated time frame.

k. Plan of action for promoting the quality of teaching:

Already implemented/in practice from last 2 years:

- Academic Audit of each Centre and each faculty member including research scholars is the part of improving quality of teaching.
- Awards (Research Award, Best Teacher Award) based on the feedback from students. University takes the feedback from the students on regular basis. This feedback is utilized to improve the teaching and other activities. These awards are given to the faculty by following the policy approved by EC.
- Chancellor and Vice Chancellor's Awards for two students (one male and one female) from science and two students from humanities (one male and one female). These awards are based on overall performance of the student.
- Research Awards (including cash awards) for innovative faculty members who produce outstanding research achievements. The purpose of these awards is to promote research at CUPB, create a research atmosphere and give recognition to outstanding performance of individual researchers. These awards are given based on the various parameters like impact of publication, amount of project grant, *h*-index.
- Time-to-time curriculum review by the Schools/Centres of the university.

l. Planning for future:

(i) 3 year action plan, (ii) 7 year strategic plan, and (iii) 15 year vision

The university is functioning from rented accommodation. Because of paucity of space, we are restricted to start some new courses/undergraduate courses. When we will shift to our new campus, hopefully, the strength of students will be increased as per following details. This is as per our commitment with Shri Vinay Sheel Oberoi, the then Secretary, MHRD, New Delhi (conveyed vide letter No. CUPB/CC/VC/16/0067 dated 4.9.216):

	PG and Ph.D.			**UG + PG and Ph.D.**		
Phases of construction	**Phase 1 A**		**Phase 1B**	**Phase 2**		**Phase 3**
Admission years	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
No of students expected	1100 (total)	1800	2300	3500	4600	6500
Hostel accommodation	750 (full today)	960 + porta cabins	2100	3300	4500	6000

Digital Initiatives taken up by

Rajiv Gandhi University

RONO HILLS, DOIMUKH, ARUNACHAL PRADESH

Rajiv Gandhi University, Doimukh has been constantly initiating steps to make use of ICT technologies for academic, research and administrative activities. ICT tools and applications are of more relevance to RGU since it is strategically and remotely located. Hence, several efforts have been put to digitize and enable IT services that have in turn leveraged numerous activities of the university.

I. Campus wide LAN

It was felt that no IT application or IT enabled services would be successfully utilized or hosted without proper IT network infrastructure. In view of the above, a robust and scalable Campus wide LAN has been built connecting all the academic and administrative blocks. It has been growing since 2006. All the applications/ resources can seamlessly be shared and utilized by the users.

II. Intranet Solutions

To widely circulate the information, which are to be restricted within, the university campus, an Intranet website has been created and its web services are enabled for access to the users. This effort has helped in reducing the print materials and saved enormous time compared to the earlier system wherein a person used to go to each department/ branch to deliver those letters. In addition, reliability factor has also been attributed by adopting this method.

III. E-Journals

Our university is a member of various networks/ consortia (like UGC-INFONET through INFLIBNET) Electronic (e-books & e-Journals) - 10000 + e-Journals from UGC-INFONET, INDUST Consortium.

IV. Library Management Software

KOHA, a popular open source Library Management Software (LMS) package has been implemented at university library. Some of the salient features of LMS are as follows:

- Library Website- http://rgu.eclateng.com.
- Electronic Resources Management & Federated searching tools to search full text articles.
- Online OPAC
- In-house / remote access to e-publications.
- Library automation- RFID with smart gate and smart cards in use.
- Total no. of computers for public access- 30.
- Content Management system for e-learning.
- Participation in resource sharing

V. University Management Solution (UMS)

An ERP equivalent solution with a higher relevance for RGU is currently being implemented. This has been termed as "University Management Solution" (UMS). UMS will be the solution for automation/ computerization of all the processes that are involved in any kind of day-to-day activities of RGU with respect to administrative, academic research activities etc. The core module and some of the basic modules will be available by the end of this year.

VI. Online Admission System

Online Admission System of RGU was introduced in the year 2016. This is the second year of its operation and has been largely accepted and appreciated by the stakeholders. More than 500 applicants had applied in just 5 days in the last academic session 2016-2017 through online mode.

VII. RGU Wi-Fi Campus Connect Program

Wireless Campus Connect program is an ambitious project of MHRD of which RGU is a beneficiary. Before the commencement of this project, wireless connectivity to seven hostels were provided. Soft launch of RGU Campus Connect program has recently been done in the month of June 2017. Through this program, all the academic, administrative buildings and hostels have been facilitated with Wi-Fi connectivity.

VIII. Basic Computer Course:

Under this program run from Computer Centre (RGU), many staffs and students have been trained with basic computer Literacy programme and MS-Office Package. Last year, around 200 learners have been awarded the certificates, which will form an important credential for their employability. Similar skill enhancement and capability building programs are in line for introduction.

IX. Smart Classrooms

Two smart classrooms are readying for being commissioned by July 2017 month end. Through these classrooms, it is being envisaged that collaborative teaching and research activities would be undertaken. Reputed resource persons would be approached for lectures on topics of subject as well as motivational interests.

X. Spoken Tutorial Project with IIT Bombay:

Our university has signed an MoU with IIT Bombay for carrying on spoken tutorial project. Under this project, software based offline courses would be provided to the interested learners of all disciplines. There is a coordinator at IIT Bombay to look after the progress of these courses. All departments have been asked to coordinate to enable the interested learners to enrol for the courses.

XI. National Digital Library (NDL) by IIT Kharagpur:

National Digital Library- a project by MHRD is being undertaken by IIT Kharagpur. Being a member institution, our university is having access to numerous study materials of all disciplines on the portal being handled by IIT Kharagpur.

XII. Vittiya Sskhsharata Abhiyan:

A campaign for promoting cashless economy in the higher educational institutions. It has been a huge success in our university. Trainings were imparted to Faculty members, staffs and students; as well as public in nearby villages in the month of Dec'2016 to Jan '2017. The campaign includes used of app such as UPI, BHIM, USSD etc. Trainers from our university trained more than 300 paramilitary personnel (NDRF). Immediate campaigns were started following the directives from the Secretary, UGC. All reports submitted to the Secretary, UGC by hand on 12th Jan '2017.

Apart from the aforementioned, there are several other digital initiatives such as RGU's own MOOC portal that would benefit the affiliated colleges, Wiki resources, Bio-diversity and Tribal languages web portals are being focused for implementation.s

प्रोफेसर टी. बी. सुब्बा
कुलपति
Professor T. B. Subba
Vice-Chancellor

6th Mile, Samdur, Tadong -737102
Gangtok, Sikkim, India
Ph. 03592-251067, Telefax: 251067
Email : vc@cus.ac.in
Website: www.cus.ac.in

सिक्किम विश्वविद्यालय
Sikkim University
(A central university established by an Act of Parliament of India in 2007 and accredited by NAAC in 2015)

Shri Sukhbir Singh Sandhu
Jt. Secretary (CU & L)
Department of Higher Education
Ministry of Human Resource Development
Government of India
Shastri Bhavan
New Delhi 110 015

Dear Shri Sandhu-Ji,

Attached please find the report of Sikkim University on the digital initiatives taken by the university for your kind perusal and necessary action, if any.

With warm regards,
Sincerely,

T. B. Subba 29/6/17

Sikkim University
Report on Digital Initiatives

The following is the report on digital initiatives taken by Sikkim University:

1. Only online applications are accepted for admission and recruitment since 2015. Even our tenders are all e-tenders only. The technical support for this is provided by HT Media, Mumbai, supported by our own ICT Cell. The process of selecting and appointing the service provider started in early 2014.
2. Our entire examination system is online from 2008-09. Not only are the examination fees paid and hall tickets issued online but even marks are uploaded online by 32 departments and 14 affiliated colleges, which makes it possible for us to declare the results within 20 days from the last date of examination.
3. All payments by the University to employees, vendors, guest faculty members, students etc. are made online since 2015 and all receipts from students, including mess fees, are received online from early 2017, after some orientation sessions were organized with the help of local bank officials. Use of cash in our financial transactions is virtually nil.
4. Our Central Library is fully automated and even provides remote access of its resources to all faculty members, MPhil and PhD scholars.
5. Since 2008, our staff attendance is based on biometric machines which are today centrally monitored and controlled. The reports are generated periodically and submitted to the authorities through email.
6. Almost all correspondences between the teachers, staff and administration is through email. Group emails are created for various sections of employees for easy and quick reach. Even draft guidelines are circulated and feedbacks received through email.

We are now making efforts to make our Common Admission Test online from 2018 and connect all departments – both administrative and academic – of the University through ERP.

T.B. Subba, VC 24/6/17
Sikkim University

CENTRAL UNIVERSITY OF SOUTH BIHAR

Annexure

Study Webs of Active Learning for Young Aspiring Minds (SWAYAM)

In pursuance of *UGC (Credit Framework for Online Learning Courses through SWAYAM) Regulation, 2016* Central University of South Bihar in the 15th meeting of its Academic Council held on 19th August, 2016 vide Resolution No. 31/AC-15/16 resolved to implement it and accordingly all the Head of Departments/Centres have been entrusted to identify the courses from SWAYAM Platform to be offered under different programmes keeping in view their academic requirements.

National Digital Library (NDL)

After the launch of NDL project, University has registered all its members in the NDL Portal. Each member has received UserID and Password to access the resources. Instructional course has also been organized in the University to acquaint students about the resources and services of the National Digital Library.

National Academic Depository (NAD)

In pursuance of Government of India initiatives for digitalisation of academic awards to be known as National Academic Depository (NAD), Central University of South Bihar has established a NAD Cell and appointed a Nodal Officer for execution of Service Level Agreement with NSDL Database Management Ltd. (NDML). The University is in the process of agreement with NDML.

E-Shodh Sindhu consortium

Being a member of *E-Shodh Sindhu Consortium,* more than 8000 e-journals are available to the Central University of South Bihar Library from Annual Reviews, *Springer, Taylor & Francis, Wiley-Blackwell, Oxford University Press, Project Muse, Cambridge University Press, JSTOR and ScienceDirect [10 subject collection from Elsevier Inc.].*

30.6.17

कुलसचिव / Registrar
दक्षिण बिहार केन्द्रीय विश्वविद्यालय
Central University of South Bihar

CENTRAL UNIVERSITY OF TAMIL NADU, THIRUVARUR

Digital initiatives

Central University of Tamil Nadu, since its inception had progressively made efforts to digitalize the working environment. The digital initiatives are of two segments viz.

a) Procurement and enabling the availability of required hardware to enable and facilitate e-governance.

b) Providing support software - CUTN had made progressive changes in bringing up gradation as and when required. In addition to this, modern social communication tools like face book, twitter etc., adds to the list. All the students enrolled are provided with email ids which is linked to various student amenities, including library, hostels etc.

1. Web-page and email services

CUTN had formed a web committee to dissipate information pertaining to various aspects of university. The web portal is carefully and meticulously designed to reflect and address the needs of students, faculties, staff and general public. Online applications for admission into various programmes, course registration, payment of fee, issue of hall tickets to students is done through secure portal. All formats for CUTN community like applications for PBAS, leave forms, staff welfare forms are available under downloads which will be converted sooner to online application. Alumni registration entertains to contact those completed students who are spread across globally.

All circulars are posted in e-circular corner for timely and immediate information. Moreover, a continuous monitoring of the modern change and requirement is delivered to the end users through web portal services.

2. Teaching and Learning Process

CUTN has been quick to adopt Information and Communications Technology (ICT) in the teaching-learning process to the next level. Moodle was implemented since 2010 and progressively course integration is carried out in phased manner. A training session on the use of ICT is included as a part of orientation to the new incumbents, both faculty and students. CUTN signed a Memorandum of Understanding (MoU) with IIT-Bombay under MHRD initiative to promote ICT based teaching and learning.

The University proposes to develop and deploy the following technology-based tools to impart education to students to learn, communicate, collaborate and study with the help of the exciting technology trends. A committee to implement MOOC based learning is already in place and we are hopeful to implement MOOC/Moodle at the earliest. The students are encouraged to register for NPTEL online courses. The university is in process of considering the credit earned through NPTEL courses.

3. Library

The University Library was established in the year 2009 and it serves the students, faculty members and staff of the university. The library has a collection of about 26,700 books. Of these, more than 1,500 books are reference books (Handbooks, Dictionaries, Encyclopaedias, and coloured atlases etc) and the rest are Textbooks and General books. The library also has 114 CDs/DVDs and subscribes to 19 print journals. The major resource base offered by the library to the faculty and research scholars of the University is the set of e-journals provided by the **e-Shodh Sindhu – UGC – INFONET** Consortium for e-Resources, an online journal consortium funded by the UGC. The faculty and research scholars are very much benefitted by the INFLIBNET which provides access to journals/e-books and search engines. At present the university has displayed the title of the student's Ph.D theses as the first batch of students are yet to submit.

The Library implemented KOHA – an open source software package – which is an integrated library management system that supports all housekeeping operations of the Library. KOHA a very large user community spread across the globe and consists of modules on acquisition, cataloguing, circulation, serials and OPAC.

The circulation processes of issuing books, return of books and reservation have been automated Records for all library members – students, faculty, officers and administrative staff are being migrated to the new computerized circulation system.

Access to Knimbus, J-GATE, SCIFINDER, EPWRF India Time Series (EPWRFITS), International Monetary Fund's (IMF) eLibrary, South Asia Archives (SAA) and World E Book Library (WEL).

Learning Resources User Centre - More than 30 No. of computers are available to access these resources. A number of e-books relevant to the faculty and students freely available on the internet were identified and links to these were provided on the Library Webpage as also on the Online Public Access Catalogue.

- The OPAC was made accessible on the campus intranet / INTERNET.
- Work on building the institutional repository that will showcase the research output of the faculty and research scholars of the University has been initiated.
- Reprints of faculty publications as also softcopies of faculty publications are being regularly collected. Links to softcopies have been provided on the library webpage and a 'faculty publication corner' has been created within the library to showcase faculty publications and research.
- With a view to enhance access to resources available within the country, the CUTN library has become a member of the National Digital Library Initiative of Indian Institute of Technology, Kharagpur.

4. Digital initiatives in departments

The Central University of Tamil Nadu has all the classrooms with multimedia capability to enhance the teaching experience and also to ensure that the learning in classroom is more interactive and participative. These classrooms will be progressively upgraded into Smart classrooms. The department of chemistry and physics using scientific tools for chemical structure representation and analysis of structures to support the experimental findings. The university is offering bioinformatics course in which computational facilities are explored. The university is equipped with SCANMAT centre which hosts advanced computational facility including proprietary software. Dedicated language lab is in place for the language departments. The University encourages the practice of conducting lectures through audio-video/video conferencing, as it is a very engaging and interactive tool of teaching.

The Central University of Tamil Nadu will join the rest of the World as an active participant in the Open Educational Resource (OER) movement with a number of home-grown and externally driven initiatives. Apps to tap the potentials of Mobile Technologies which extend accessible educational opportunities for the Disadvantaged Community will be tapped by the Central University of Tamil Nadu in its rural setting.

A Virtual Centre for Technology Enhanced Learning (VCTEL) is visualized at CUTN to collaborate between Institutions in developing, sharing and disseminating mutually beneficial and interesting applications of technology in education and learning.

5. University Administration

University had implemented home built web platform for tracking the movement of files. This module enables real time tracking of file movement. This enables faster processing and quick decision making and consolidation of administration related work. E-circulars as mentioned earlier delivers the notification immediately to the concerned. Tendering process is done completely through online portal and is open and transparent. All regular faculty and staff appointment is done through online application. In certain deserving cases, skype interview is conducted for the faculty appointment. CUTN had adopted biometric attendance system for the administrative staff.

CUTN had procured servers and progressively installing the necessary software towards digital initiatives. One such effort is to publish results to the student community online and this has saved significant time and stationery. The course registration and results declaration are now done electronically.

6. Hostel Administration and internet facilities

An ERP based software for the management of hostel is in place which caters the needs of the students. Some of the salient features includes room allocation, inventory management, parents-wards database, biometric attendance for student mess linked with payment, etc. 24 x 7 internet facility at hostel premises allows student to enrich the knowledge as the internet service is backed by NKN.

DIGITAL INITIATIVES OF TRIPURA UNIVERSITY

Prof. Anjan K. Ghosh
Vice Chancellor

2017

त्रिपुरा विश्वविद्यालय
TRIPURA UNIVERSITY
)केन्द्रीय विश्वविद्यालय(
(A Central University)
Suryamaninagar, Tripura West. PIN- 799 022
Website: www.tripurauniv.in
Fax: 0381-237-4802

Abstract : *In the past four years Tripura University has taken many steps to go digital. The highlights of the digital initiatives are given in the document*

1. Introduction

Tripura University is committed to enhance higher learning through abroad range of digital initiatives. In the past four years it has taken many steps to gear up to face the new challenges in the digital era. The University administration has identified some of the niche areas which can be completely transformed to digital. The university can no longer afford to stay immune for the digital transition. At a time when the University is expecting to enroll more outside country students and strengthening distance education programme, the digital initiatives come handy in achieving this goal. Some of the key benefits would be, more students enrolment, hassle free and robust admission process, end to end integration of all the related process, instant retrieval of data, less load on University administration and optimized learning solutions.

The university has taken the following digital initiatives to scale up to international level:

2. **Online admission process:** All the admission related functionalities like online application form submission, scrutiny of applications, Students enrolment and collection of fees are automated by outsourcing this to a local agency. This is introduced from the academic session 2016-17 for all regular learning courses. In this each students are assigned with single unique ID for their entire academic year which they can use for different purpose within the university including library.
3. **Academic Program Management:** The academic programs are partially automated. The student feedback system will be made online from the current academic session 2017-18.
4. **Learning Management System:** The University has improved its infrastructure to provide access to online study material to its students. In the first phase of its campus connect project laying of passive fibre cable is completed. In this phase University has installed 50 Wi-Fi access points to access internet.

   The University has introduced an open learning platform called `Brihaspati' software developed by IIT Kanpur for student online learning management. This platform provides complete freedom to students and instructors to interact through mail, chat, etc.

   The University has also installed `Virtual Class System' from Adobe in the year 2015 to conduct online classes. Currently this system is used for teaching basic computer classes for P.G. students. Two workshops have been conducted to faculties in the year 2015 on usage of the Virtual Class System.

The University is widely using NPTEL courses in its curriculum. This year in the month of April a one day workshop was organized by NPTEL, IIT Kanpur to create awareness among the faculties.

5. **Examination Management:** The University has taken steps to join National Academic Depository (NAD) platform for issuing its academic certificates to students. The University has digitized its marks sheet from the year 2005 and is in the process of digitizing old examination records from the year 1987 till 2005. It is also on the verge of automating entire examination and evaluation system.
6. **Library Automation:** The library is using the Integrated Library Management System-KOHA for the library operation. It has digitized the bibliographic details of around 25% of the books available in the library. User can search bibliographic records available in the library via Online Public Access Catalogue (OPAC). Very soon all the Sections of the Library will be integrated with KOHA.

7. Digital Library

7.1 E-books: The library has procured 30906 from 10 renowned publishers.The collection covers wide range of subjects that can be accessed via University's website. The details of the publishers with usage statistics are given below.

Publisher coverage	**Source**	**Amount Spent in Rs.**	Quantity	**Usage (total downloads)**			
				2014	**2015**	**2016**	**2017 (till May 17)**
Elsevier, Cambridge University Press, Springer, Wiley, T&F, Oxford University Press, McGraw Hill, Sage, IEEE, Pearson	Tripura University	9,96,00,000.00	30906	56454	34179	63714	12988

7.2 Online Journals and Databases: The library has subscribed to at least 12 online databases from the noted publishers to provide quality reference materials to its students and faculties to support their research activities.The details of the publishers with usage statistics are given below.

Publisher coverage	Source	Amount Spent in Rs. for the year 2017	Quantity	Usage (total downloads)	
				2016	2017 (till May 17)
IEEE, ACM, Hein, Brill, Sage, Elsevier, Indian citation Index, Capitaline, EPW, CMIE, IndiaStat	Tripura University	1,12,87,517.00	11	33428	6496

7.3 E-Shodsindhu: The faculty, students, and staff has also have access to 22 online databases and journals from e-Shodsindhu (INFLIBNET) which covers wide range of subjects and publishers. The details of the resources with usage statistics are given below.

Publisher coverage	Source	Quantity	Usage (total downloads)			
			2014	2015	2016	2017 (till May 17)
JSTOR, Springer, ACS, Wiley-Blackwell, T&F, Emerald, Thompson	E-shodsindhu (INFLIBNET)	22	39689	44054	45019	16953

8. **Digitization of Thesis and Dissertations:** The library has taken initiative todigitize thesis and dissertations submitted to the University. Digital contents are uploaded in the Shodhganga-the repository maintained by INFLIBNET, Ahmedabad. Also, the library will take initiative to digitize, and achieve of rare collections available in the library for future use.
9. **Institutional Repository:** The Library is taking initiative to create an Institutional Repository (IR) to collect, organize, and disseminate deposit the intellectual output of the University, and promotes global opportunities for research discovery as well as for archival preservation. Open Source Repository Software-DSpace is being used to create the digital repository to archive digital content, and ensure long-term availability. The repository provides an easy and convenient solution for faculty, students and staff to deposit their

research in an open access repository. Intellectual output such as book, book chapter, conference/workshop poster/presentation, pre-print and post-print journal article, learning object, report, classroom presentations, review, etc. can be deposited in the IR.

10. **Anti-Plagiarism Software-iThenticate:** The library has taken the initiative to promote and use anti-plagiarism detention service i.e iThenticate to prevent plagiarism in the University. Faculty, students, and staff are encouraged to check their contents before publishing.
11. **MOOCs:** Academic Council in a recent meeting has told the faculty members to adopt MOOCs for at least one module in each course they teach from the academic session 2016-17. However, the adoption of MOOCs is slow.

    University has organized several workshops on developing MOOCs during the last two academic sessions. These were conducted by e-learning companies such as Lattitude Edutech, Bangalore and premier educational institutes such as IIT Kanpur.

    However the interest in developing MOOCs is not high. Young faculty members of about 6 departments are active in developing MOOCs. As for example, In the Department of Computer Science and Engineering a 30-lecture MOOC is being developed and will be submitted to the SWAYAM portal soon.

Digital Content Creation at Visva-Bharati, Santiniketan

Digitisation of the Rabindranath Tagore Archives and Library comprising manuscripts, life time print editions, paintings, still photographs, audio and video recordings has been carried out.

Over 40,000 pages of manuscripts of Rabindranath Tagore besides his correspondences have been digitised.
1601 paintings of Rabindranath Tagore have been digitised.
Over 10,000 photographs in the photo archives have been digitised. A number of cine films including documentaries and news clips featuring Rabindranath have also been digitised.
More than 3500 Tagore songs sung by noted singers of yesteryears have also been digitised from old recordings.

The Bichitra Tagore Online Variorum Project(http://bichitra.jdvu.ac.in) funded by the Ministry of Culture, Govt of India at Jadavpur University is based on the aforementioned digitised resources.

Over 15000 original paintings and art objects at the Kala-Bhavana Museum have been digitised.

29689 old and rare books of Visva-Bharati Library have been digitised under Mega Digital Library Project, Govt. of India. These have been uploaded in the NDL and are available to the users in India and abroad.
An Institutional Repository containing question papers, current syllabus, Faculty, Scholars and Staff Publications are also available to the users through the library portal.

Brief note on Digital Initiatives in Higher Education (IIITDM Jabalpur)

Institute is connected with NKN (1 Gbps) and also provides Wi-Fi connectivity to all inmates of the campus. Institute has taken several initiatives to develop campus as a smart/digital campus. Major initiatives taken are:

1. **E-Payment**
   All payments in the campus are made through net banking/mobile app etc. E-payment facilities are available at all shops, canteens, mess, eateries where one can make payment by using mobile apps like BHIM, UPI, Paytm etc.

2. **EFEE**
   Online fee system is implemented and running successfully in the campus. All kinds of fees like tuition fee, mess fee, hostel fee, summer course etc. are being collected through in-house developed EFEE system.

3. **EIS**
   In-house designed and developed software to maintain a common database of research/academic/project of all faculty members. This helps in preparing the reports etc. in time.EIS was developed in-house for the purpose and is running successfully. Faculty members can add and update their research and publication details in the database which available for public viewing.

4. **Online Admission System**
   Online admission system is also in place to receive applications for PhD and MDes admission. Online Admission System is developed in-house to have online admission facility. It is being used for admission of PhD and M Des students and is running successfully.

5. **OATH**
   OATH softwareis in place for keeping academic/grade point record of all students. OATH (Online Academic Transaction Help) is providing support in preparation and maintains of academic records of students.

6. **Digital Library**
   Library provides access to e-books, study materials, previous question papers, teaching schedules, daily circulars etc. through the Local Area Network.NPTEL videos, lessons and SONET videos for online use of students/faculty. It also has some digital facilities/ applications:

   a) E-shodhSindhu
   Institute is a member of e-shodhsindhu developed by INFLIBNET and MHRD from where we have access to number of e-resources such as ACM digital library, ASME journals, Emerald CFTI collection etc.

b) OPAC/Softgranth

Institute houses a digital library equipped with OPAC/Softgranth. Library is also equipped with barcode scanning facility to keep track of issue and return of books. It maintains a good database on variety of topics including Engineering, Computers and Management.

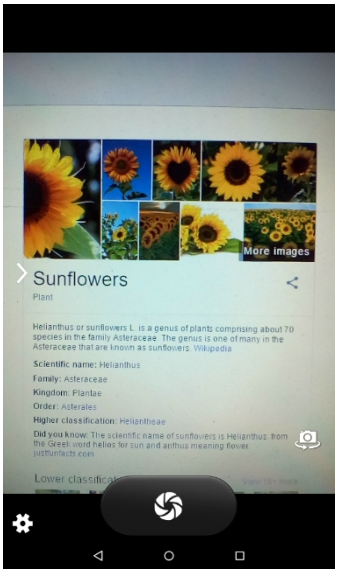
7. Institute is also developing a smart app for Plant Species Identification in the campus. IIITDM Jabalpur campus is rich in flora and fauna and is located near to Dumna Nature Park. This app will help in development and maintaining the plant/wild life data of the campus and creation of a mobile based application based on Cognitive Data-Aware Intelligent Systems for plant species identification.
    a. **Objective -** Developing Plant data and creation of a mobile based application based on Cognitive Data-Aware Intelligent Systems for plant species identification.
    b. The project is the follow up project of "**Preparation of a user-friendly data-base of Phytodiversity in Satpura Plateau Agro-climatic zone of Madhya Pradesh"** being executed at TFRI. The project aims at preparation of Digital herbarium with interactive user-friendly interface facilitated with touch based search and retrieval. While interaction with the Project Investigator it occurred that the search can be more simplified by using Cognitive Data-Aware Intelligent system, at the same time it will have more appeal to users if the technology can be provided in a mobile based application.



    c. The application will be developed in four steps namely, image acquisition,image pre-processing, feature extraction and image classification. In this work, we aim to apply 'Deep Leaning' for plant detection.

    d. Justification and novelty

    e. This database and the app will be immensely useful to understand the nature of the bio-diversity in the local region as well in the state. The same can be used to develop similar databases and app in other states/regions of India. As our newer generations becoming more and more aware of the importance of the nature and the role of plants and the eco-system, this can also enhance the care for our surroundings and the nature.



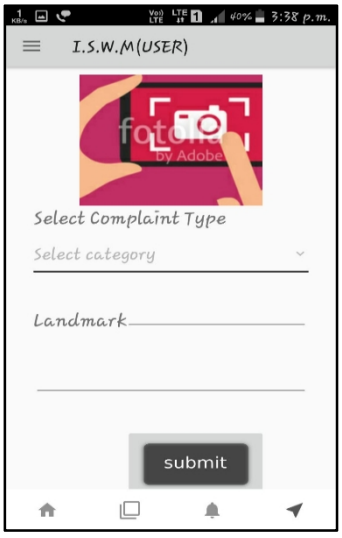
f. Tentative Phase wise Work-Plan

Phase –I	Phase – II	Phase-III
We will develop a proof –of-concept mobile app along with the plant database for the plants in IIITDMJ Campus	We will develop a proof–of-concept mobile app for plant species identification for the plants in SatpudaPlatau area	We will consolidate the plant database as well as the mobile app for a more general purpose usages like data collection, data selection, identification, reporting, etc.

8. A smart app for Solid Waste Management in the campus is under development with an objective to manage solid waste within the institute campus. Specifically, this app will help to (1) preparing waste collection schedule, assigning roles and responsibilities, tracking waste collection and generating reports for the same (2) Handle complaints about the cleanliness and follow-ups (3) Process monitoring, evaluations and decision making.



   a. (This app is a part of the Integrated Solid Waste Management Project (ISWM), being carried out under DIC by Dr TanujaSheorey and Dr Atul Gupta)
   b. **Objective** – This work aim at managing solid waste within the institute campus. Specifically, this app will help to (1) preparing waste collection schedule, assigning roles and responsibilities, tracking waste collection and generating reports for the same (2) Handle complaints about the cleanliness and follow-ups (3) Process monitoring, evaluations and decision making.
   c. Justification and novelty
   d. This app provides specific interfaces for garbage collectors, caretakers and the IIITDM user community to perform specific roles and delegate specific responsibilities. Additional usability is incorporated by providing Google Map interfaces to most of the tasks involved. Also we intend to provide various statistics over the different kinds of waste generated, and recycled waste. This will help in enhancing waste management in the institute.



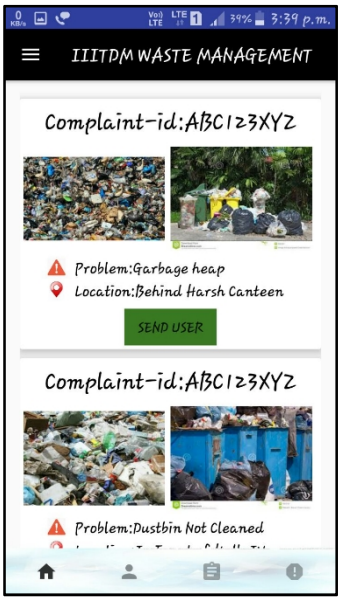
   e. Tentative Phase wise Work-Plan
      i. **Phase-I –** In this phase we are developing the app prototype and will be testing on the present garbage collection mechanism to figure out the necessary changes to be incorporated. (8 months)
      ii. **Phase II** – In this phase we will lay down the necessary mechanism in place in order to proper collection, segregation, and disposal of the solid waste. The app will be used to ensure

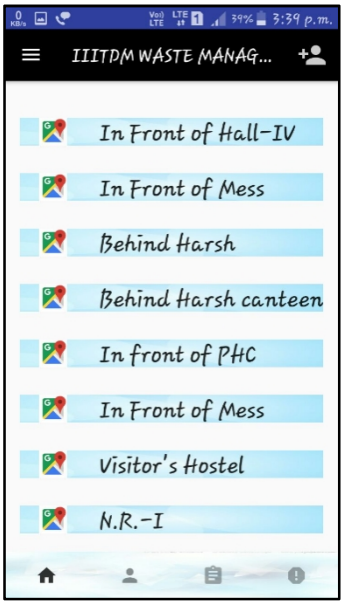
the intended operations of the solid waste management system and necessary logs will be maintained. (8 months)

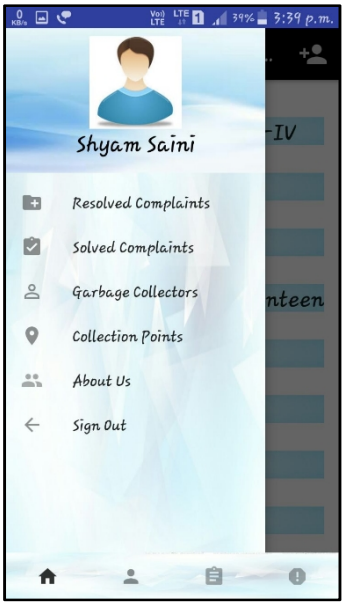
iii. **Phase III** – In this phase, the data collected will be used in decision making and improving the effectiveness of the overall systems. (8 months)

f. Some of the User interface screens are as given below









9. This is another app that we are developing to help visitors to explore the institute campus. IIITDMJ Map is a guiding app and can be used by students, faculty members, staff, and other visitors.
    a. Problem Statement:

        The issue everyone faces when they visit a new place is how to start exploring it and what's the layout of the place. In this case we consideredIIITDM campus. This problem can be solved by either providing a map at the start or in the form of a leaflet. But since the map and leaflet will add on additional cost it's not a preferred solution. Using technology we provide a solution in the form of an application.

    b. About:

    IIITDMJ Map is a guiding app which would help people,who are new to the campus, to explore it more easily and efficiently. The users will get an interface through which they can interact with the Institute layout. The app can be easily used by anyone having a smartphone, as it is based on the android platform.The users of this app include students, faculty members, staff, and other visitors who visit the Institute during various fests and various programmes organized by the Institute time to time.

    c. Features:

    Google Maps provides a simple map of the college which is just not sufficient for anyone to precisely access the different locations in the Institute. Thus a more detailed map has been overlaid over it with transparency effect. The extra features that the app provides include:

- **Detailed college map overlaid over Google Maps:** Provides a more detailed view of the college campus with all architectures included.
- **Direction and Navigation for the required location:** Helps the user to navigate within the campus.
- **Multiple markers for a particular filter:** Different locations are divided into categories so that they can be filtered when the user wants it.
- **Transparency:** Provides transparency adjustments for the overlaid map.
- **Zooming in and out:** Provides zoom control to the user
- **Tilt and orientation adjustments:** Provides different point of view and perspective according to user preference.

d. Comparison with Google Maps:

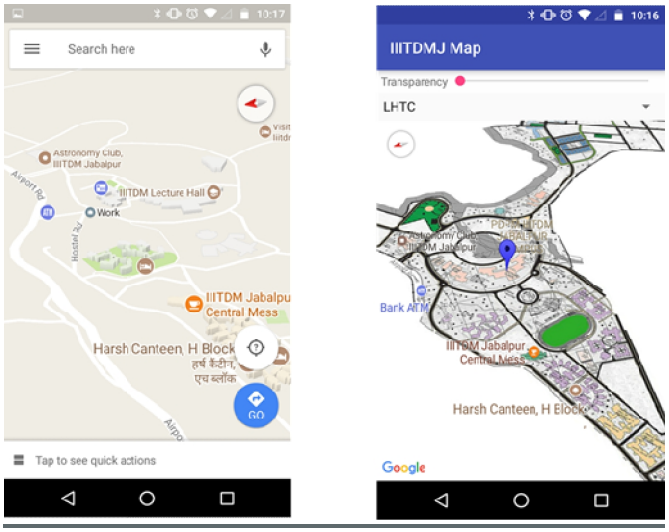
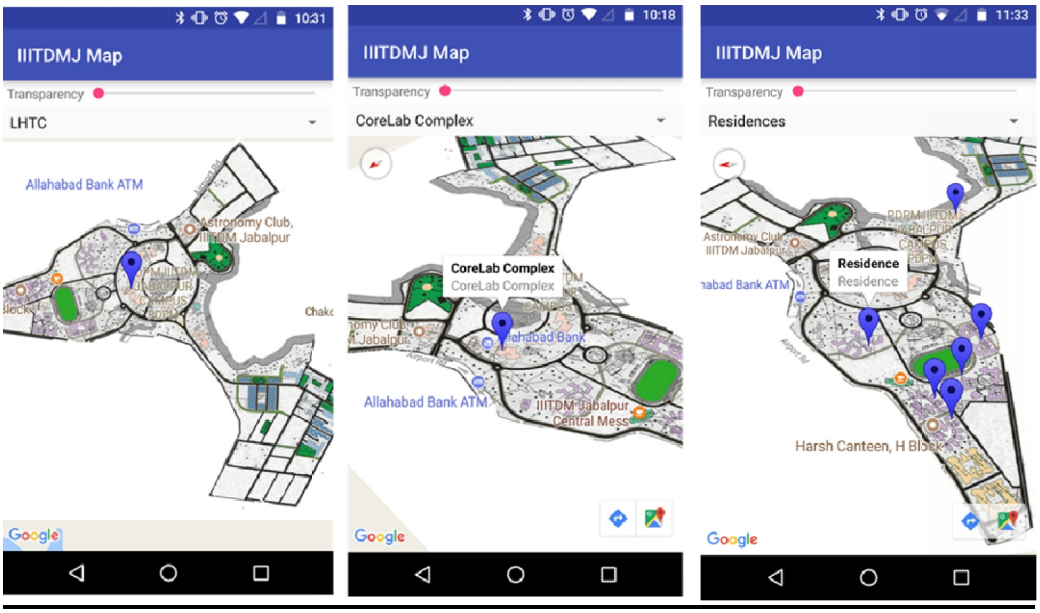


Fig 1: A comparison between displays of Google Map (left) and IIITDMJ Map (right)

e. Detailed Interface:



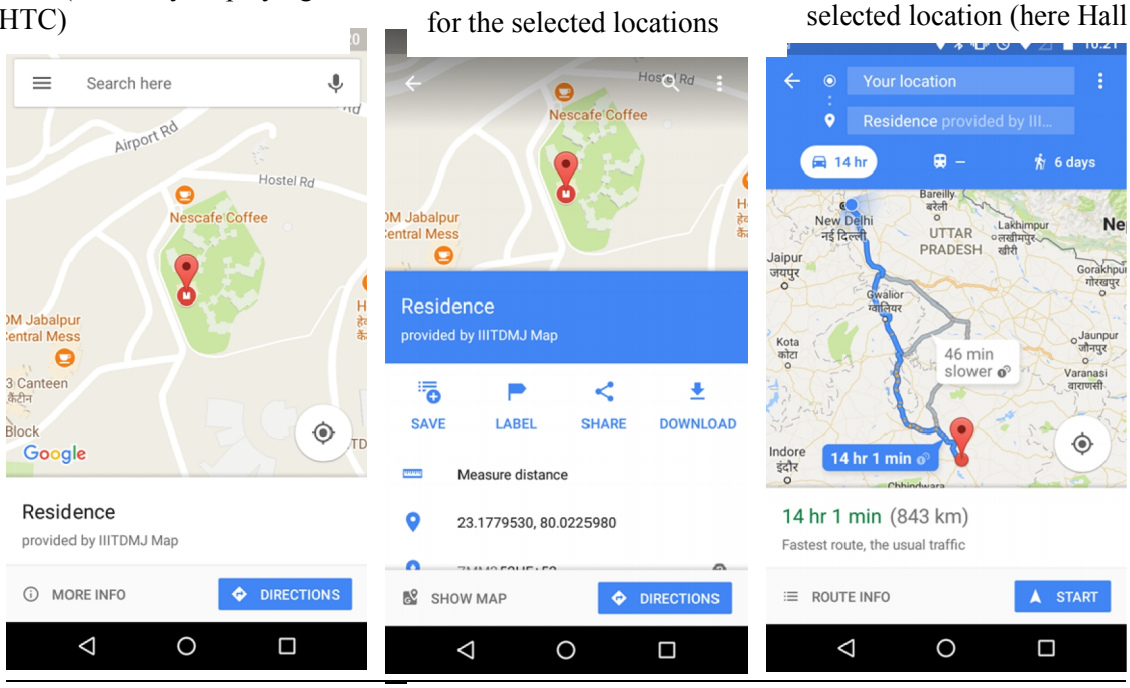
0% transparency (adjusted by the slide bar on the top)

Filters (Currently displaying LHTC)

The bottom right corner of the app contains navigation as well as direction buttons for the selected locations

Multiple markers for selected filter (here Residences)

Direction and navigation for selected location (here Hall 1)



The map after clicking on the "Direction button" showing the required location on Google Maps

Information menu is displayed on clicking "Mor Information button"

GPS Navigation from your current location to the selected location on the campus

Fig 2: Detailed interfaces of IIITDMJ Map with details

f. Future Scope:

- Different colour markers for different filters.
- Navigation Drawer instead of Drop Down list.
- Addition of new architecture.
- More user-friendliness.
- Inbuilt navigation
- Present location marker

10. Institute ERP and DSS: Another ambitious project we are taking is to develop in house ERP system to integrate various departments/sections/facilities/stakeholders. It is going to be a rule based, dashboard interfaced system which will provide all the relevant information as well as tasks to be performed as per the role(s) of the user, all at the same place.

a. **Objectives** – This project aims to develop a suitable ERP and a DSS for activities related to various department/Sections/Facilities and their stakeholders.

b. **Motivation and the Novelty** – This will be developed as per the specific requirements of each sections, departments as well as specific roles and the responsibilities to be delegated by its various stakeholders. It is going to be a role based, dashboard interfaced system which will provide all the relevant information as well as tasks to be performed as per the role(s) of the user, all at the same place.

c. The Plan of Action –

d. **Phase – I:** We intend to capture relevant requirements of each section/department/Facility and create an SRS for this software. We also target to define software modules for which all the relevant stakeholders, their roles and responsibilities to be identified. A few small modules are to be developed for the proof of concept purposes namely EIS which will also include the employee leave management workflow.

e. **Phase-II:** In this phase, we target to develop the database as well as the user interfaces for a few key modules like the one related with student affairs, academic affairs, and HR. A mobile interface for all stakeholder will also be conceptualized.

f. **Phase – III:** In this phase the remaining modules are to be developed and integrated, and user interfaces are to be finalized. The mobile versions will also be created and validated.

g. **Phase – IV:** In this phase, we aim to enhance user experience by providing relevant information and visualization for a more informed decision making and task delivery.

11. Institute has participated in the development of two virtual laboratory projects, namely, VLab on manufacturing and VLab on mechatronics.

Virtual Laboratory on Manufacturing

Objective and salient features

Manufacturing is the use of machines, tools and labor to produce goods for use or sale. It is an important part of our life. What we wear, we travel on, we eat, and we live-in, all are outcome of some manufacturing process, handicraft or high tech. But manufacturing is most commonly applied to industrial production, in which raw materials are transformed into finished goods on a large scale. Engineer needs knowledge on working of machine tools, and type of surface finish and precision they can generate, to decide available options during the production processes. Understanding these options will aid an engineer in the design of parts that will improve performance, reliability and reduces required re-design and manufacturing.

Course on manufacturing are being offered at various levels, from review course to fresh students to intensive courses designed for second, third and/or fourth level. In today's manufacturing complexity, a comprehensive education using real processes and equipments is very expensive. A manufacturing course without practical exposure creates gaps in understanding. With advancement in Information Technology, it is now possible to fill the gap between theory and practice through virtualization of manufacturing processes. This lab is an initialization in this direction.

In this virtual lab, it is proposed to develop simulation based experiments to cover conventional metal cutting processes, namely Turning and Milling. Each of these experiments will first make the students understand mechanics of metal cutting, followed by details on manufacturing processes actually being carried out on machine tools, to be aided by photographs and videos. Some experiments are aimed to cover operations on lathe and milling which are not normally covered in the conventional manufacturing processes lab at Engineering Colleges. Also, a set of experiments are study based in which effect of different process parameters like cutting speed, feed and depth of cut on surface finish and cutting forces are going to be analyzed.

The course is targeted for 2nd, 3rd and final year undergraduate students of Mechanical Engineering who have already performed basic turning operations on lathe machine. Some experiments can also help final year undergraduate students in taking up analysis based projects like effect of process parameters on final product.

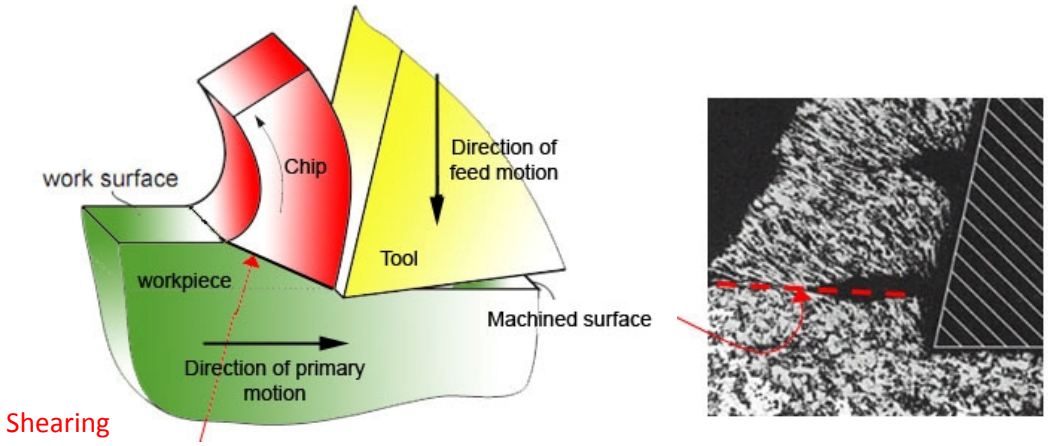
The simulation experiments will help gain the following:

1. Some operations on lathe machine
2. Effect of process parameters on parts manufactured on Lathe
3. Some operations on Milling Machine
4. Effect of process parameters on milled product

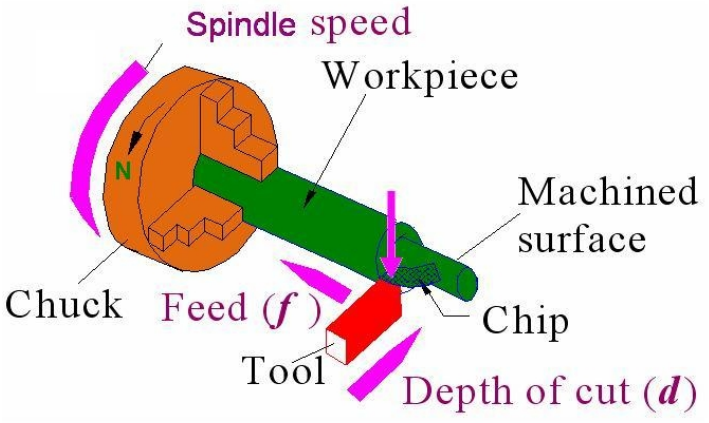
List of experiments

1. Turning operation on lathe and study of effect of speed, feed and depth of cut on surface roughness
2. To perform **taper turning** on the lathe
3. To perform **thread cutting** on the lathe
4. To perform milling operations, Profile milling, Pocket milling and Slot milling through basic operational differences and features
5. To study effect of the following process parameters during slot milling operation,
   - Cutting speed,
   - Depth of cut and
   - Feed rate.
6. To perform gear cutting operation on milling machine
7. Analysis of effect of the process parameters, cutting speed, feed rate and depth of cut on cutting forces during turning operation
8. Effect of rake angle, clearance angle and nose radius on cutting forces, surface finish and chip formation
9. Study on effect of work piece and tool materials on surface finish, chip formation and cutting forces
10. Study of cutting tool geometry and its effect on cutting forces for up-milling and down-milling operations

A lab screen shot / image (impressive one)

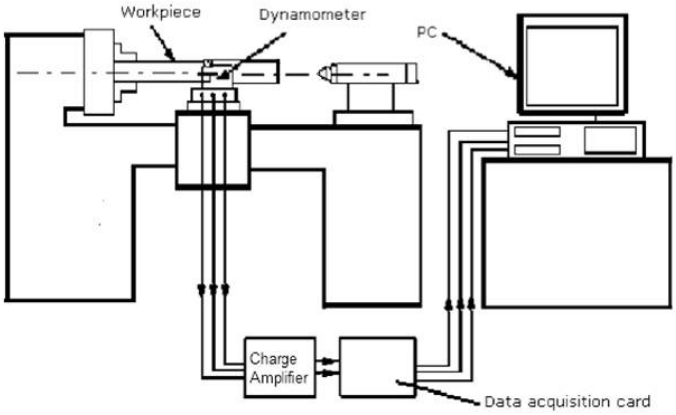


Basic Mechanics of Metal Cutting



Cutting Process Parameters





Taper Turning using Compound SlideSchematic Diagram for Cutting Force Measurement

Public accessible URL: http://vlabs.iiitdmj.ac.in/

Virtual Laboratory on Mechatronics

Objective and salient features

Mechatronics is not a discipline in itself but a synergistic integration of mechanical, electrical, and computer systems. One can understand the extent that mechatronics reaches into various disciplines by characterizing the constituent components comprising of, (i) physical systems modeling, (ii) sensors and actuators, (iii) signals and systems, (iv) computers and logic systems, and (v) software and data acquisition. The less the engineering and science boundaries become well defined, the more students will seek a multi-disciplinary education with a strong design component.

In the virtual lab on mechatronics, it is proposed to develop around twelve simulation based experiments. These experiments are mainly based on EP and EH systems with designed control, using PLC or Microcontroller. Some of the experiments are study based where students will learn functionality and characteristics of basic components of the EP and EH systems. The other set bunches experiments on design and development of real life industrial automation solution bringing understanding of actual domain of mechatronics.

The course is targeted at 3rd year and/or 4th year undergraduate and post graduate students learning basics of Mechatronics and control theory. The undergraduate students of 3rd and 4th year may utilize the knowledge to develop automated systems or in robotic applications for their minor / major projects.

The simulation experiments will help gain the following:

- Understand the fundamentals of EP and EH valves and actuators.
- Know-how of various types of valves available and their use in fluid power system in specific automation applications.
- Design of control logic based customized industrial applications.

The spirit of Virtual component of the laboratory is maintained through detailed videos and photographs of individual components and the experimental setups along with run-time videos. It will enhance the experience of student in a near real-life like situation, as if he/she is in a real laboratory.

List of experiments (completed)

1.(a) To understand working of single acting pneumatic actuator and 3/2 way solenoid operated directional control valve.

1.(b) Design and development of an electro-pneumatic control system with PLC using 1(a), to provide continuously automatic reciprocating motion with delay function.

2.(a) To understand working of double acting pneumatic actuator and 5/2 way solenoid operated directional control valve.

2.**(b)** Design and development of an electro-pneumatic system with PLC using 2(a), to provide continuously automatic reciprocating motion with delay function.

3.(a) Design and development of an electro-pneumatic clamping device to carry out single operation on the job piece per cycle.

3.**(b)** Design and development of an electro-pneumatic clamping device to carry out continuous cyclic operations automatically.

4.Design and development of an automatic inspection and sorting system, having facility for inspection, sorting and transportation of goods.

5.Design and development of an automatic inventory system, having facility for identification of type of objects and number of objects of each type.The automated control system will permit picking of stocks from inventory and maintains the reserve stock.

6. Design and development of PWM based DC motor speed control system.

7. Design and development of an automatic car parking facility having a total of four slots for parking cars.

8.(a) To understand working of Electro-hydraulic valves and actuators.

(b) Design and development of EH control system through typical industrial circuits.

9. Design and development of EH control system through various control valves.

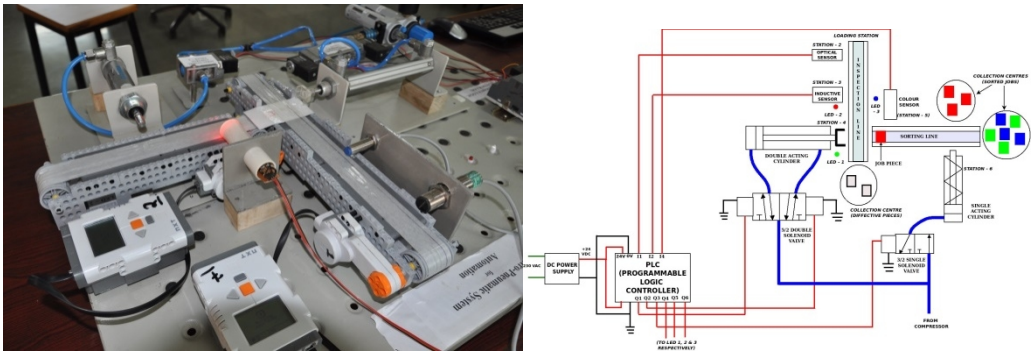
10. Design and development of an electro-pneumatic control system for lifting of specific weight from one position to another (precise positioning).

11. Simulation of EH valve for major parameters in open loop. Plotting of dynamic characteristics for each case.

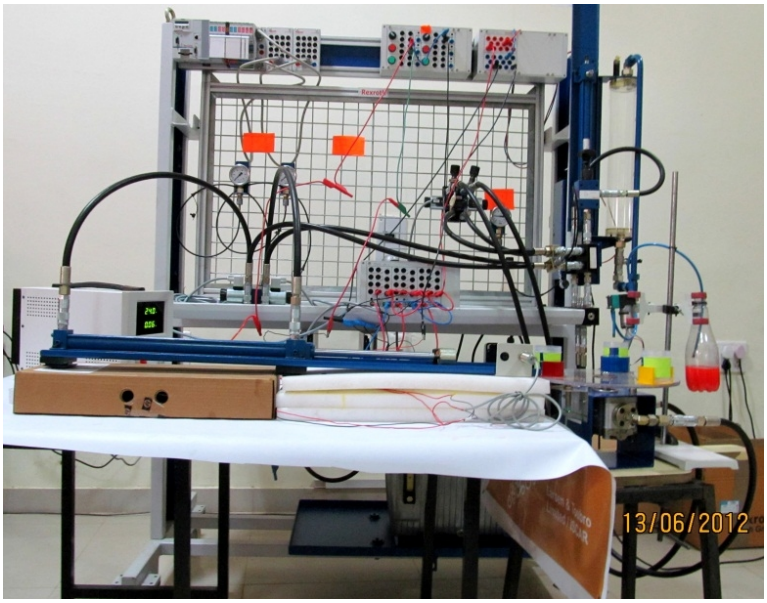
12. Design and development of an electro-hydraulic system to control the speed of rotation of disc mounted on rotary actuator.

13. Design and development of an electro-hydraulic control system for an automatic bottling facility.

A lab screen shot



Inspection – Sorting Line on ConveyorsBlock diagram detailing components



Experiment setup of automatic bottling plant

Public accessible URL: http://vlabs.iiitdmj.ac.in/

National Convention on Digital Initiatives in Higher Education
At Vigyan Bhawan, New Delhi

(8th to 10th July, 2017)

Summary of achievements of IITs

I N D E X

S.NO.	NAME OF IIT	Page No.
1.	IIT Guwahati	02 – 16
2.	IIT Patna	17 - 18
3.	IIT Bombay	19 - 22
4.	IIT Indore	23 - 26
5.	IIT Kharagpur	27 – 53
6.	IIT Hyderabad	54 – 55
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IIT GUWAHATI

This report carries the immense and continuing contributions of IIT Guwahati in enabling and empowering India while transforming it into a strong and vibrant global knowledge hub through various digital initiatives. These contributions are classified broadly into, (A) CSS–MOOCs, (B) NPTEL, (C) GIAN, (D) National academic depository (NAD), (E) E-Kalpa, (F) E-procurement and Gem, (G) Office automation and (H) RnDOPs: R&D Automation System.

A. Central Sector Scheme – Massive Open Online Courses (CSS – MOOCs)

In the third phase of NPTEL, the Ministry of Human Resource Development (MHRD) approved MOOC-compliant e-content creation where courses are delivered through online portal, open for anyone with an Internet connection. Thousands of students enroll for such open, online courses. In the line of earlier phases, here too, IITs/IISc have been entrusted for creating course content primarily at the college and university levels covering all the engineering disciplines, core sciences, humanities and social sciences. IIT Guwahati, being a core member of NPTEL team, continued contributing towards CSS – MOOCs since its approval in 2016. IIT Guwahati has offered a total of five (05) online E-courses during 2016-2017 and would be offering nine (09) course in 2017-2018 as per the details given in the following table:

Table 1: MOOCS courses offered by IIT Guwahati in 2016 – 2017

S. No.	Course Name	Discipline	Faculty	Duration (in Weeks)
1	Advanced Machining Processes	Mechanical Engineering	Dr. Manas Das	8
2	Introduction to crystal elasticity and crystal plasticity	Mechanical Engineering	Dr. Swarup Bag	8
3	VLSI Design Verification and Test	Computer Science and Engineering	Dr. Santosh Biswas, Prof. Jatindra Kumar Deka& Dr. Arnab Sarkar	12
4	Digital Human Modeling and Simulation for Virtual Ergonomics Evaluation	Engineering Design	Dr. SougataKarmakar	8
5	Introduction to Dynamical Models in Biology	Biotechnology	Dr. Biplab Bose	4

Table 2: MOOCS courses to be offered by IIT Guwahati in 2017 – 2018

S. No.	Course Name	Discipline	Faculty	Duration (in Weeks)
1	Science, Technology and Society	Humanities and Social Sciences	Dr. SambitMallick	12
2	Fluidization Engineering	Chemical Engineering	Prof. S. K. Majumder	12
3	An Introduction to Cardiovascular Fluid Mechanics	Chemical Engineering	Dr. Raghvendra Gupta	4
4	Ecology and Society	Humanities and Social Sciences	Dr. NgamjahaoKipgen	12
5	Gender and Literature	Humanities and Social Sciences	DrAvishekParui	8
6	Mechanics of machining	Mechanical Engineering	Dr. Manas Das	8
7	Computer Organization and Architecture: A Pedagogical Aspect	Computer Science and Engineering	Dr. Santosh Biswas, Prof. J. K. Deka, Dr. Arnab Sarkar	12
8	Advances in welding and joining technologies	Mechanical Engineering	Dr. Swarup Bag	8
9	Nuclear and Particle Physics	Physics	Prof. PoulosePoulose	12

B. National Program on Technology Enhanced Learning (NPTEL)

The basic objective of National Program on Technology Enhanced Learning (NPTEL), a flagship ambitious mission project of Ministry of Human Resource Development (MHRD) is (i) to enhance the quality of Science/Engineering education in the country by providing free online courseware and that ways, (ii) to devise and guide reforms in science and engineering education which is expected to transform India into a strong and vibrant global knowledge hub.NPTEL is focused on the right to access the best brains in academia by any student/teacher in (a) higher education, (b) professional education, (c) distance education and (d) continuous and open learning. It provides E-contents for all major streams of engineering, core science, humanities and social sciences in both the formats – Web as well as Video.

IIT Guwahati developed a total of 20 video courses and 81 web courses under NPTEL. Details of these courses are given in the following table:

Table 3: Courses developed by IIT Guwahati in NPTEL Phase I

S. No.	Course Name	Discipline	Faculty	Type
1	Engineering Physics I (Experiment)	Physics	Prof. AlikaKhare , Prof. Pratima Agarwal & Prof. S. Ravi	Web
2	Engineering Physics I (Theory)	Physics	Prof. AlikaKhare , Prof. Pratima Agarwal & Prof. S. Ravi	Web
3	Mathematics III	Mathematics	Prof. M. Guru Prem Prasad & Prof. Durga C Dalal	Web
4	Construction Planning and Management	Civil Engineering	Prof. Arbind Kumar Singh	Web
5	Fluid Mechanics	Civil Engineering	Prof. Subhashisa Dutta & Prof. N. Sahoo	Web
6	Soil Mechanics	Civil Engineering	Prof. Baleshwar Singh	Web
7	Computer Organization and Architecture	Computer Science and Engineering	Prof. Jatindra Kumar Deka	Web
8	Data Structures and Program Methodology	Computer Science and Engineering	Prof. S.V. Rao & Prof. Pradip K Das	Web
9	Theory of Automata and Formal Languages	Computer Science and Engineering	Prof. DigantaGoswami	Web
10	Digital Circuits	Electronics and Communication Engineering	Prof. Anil Mahanta and Prof. Roy PailyPalanthinkal	Web
11	Electromagnetic Fields	Electronics and Communication Engineering	Prof. RatnajitBhattacharje e	Web
12	IC Technology	Electronics and Communication Engineering	Prof. Roy PailyPalanthinkal	Web
13	Probability and Random Processes	Electronics and Communication Engineering	Prof. Prabin K Bora	Web
14	Engineering Mechanics	Mechanical Engineering	Prof. U.S. Dixit	Web
15	Mechanical Vibrations	Mechanical Engineering	Prof. Rajiv Tiwari & Prof. S.K. Dwivedy	Web

16	Design of Steel Structures	Civil Engineering	Prof. DamodarMaity	Video
17	Hydraulics	Civil Engineering	Prof. Arup Kumar Sharma	Video
18	Basic Electronics	Electronics and Communication Engineering	Prof. ChitralekhaMahanta	Video
19	Engineering Mechanics	Mechanical Engineering	Prof. U.S. Dixit & Dr. G. Saravana Kumar	Video
20	Mechanical Vibrations	Mechanical Engineering	Prof. Rajiv Tiwari & Prof. S.K. Dwivedy	Video

Table 4: Courses developed by IIT Guwahati in NPTEL Phase II

S. No.	Course Name	Discipline	Faculty	Type
1	Hypersonic Aerodynamics	Aerospace Engineering	Dr. N. Sahoo, Dr. Vinayak Kulkarni	Web
2	Principles of Fluid Dynamics	Aerospace Engineering	Dr. N. Sahoo, Dr. Vinayak Kulkarni	Web
3	Cell Biology	Biotechnology	Dr. Sanjukta Patra	Web
4	Genetic Engineering & Applications	Biotechnology	Dr. Utpal Bora	Web
5	Plant Biotechnology	Biotechnology	Dr. RakhiChaturvedi	Web
6	Proteomics and Genomics	Biotechnology	Dr. Vikash Kumar Dubey	Web
7	Cellular and Molecular Immunology	Biotechnology	Dr. Sachin Kumar	Web
8	General Virology	Biotechnology	Dr. Sachin Kumar	Web
9	Gene Therapy	Biotechnology	Dr. Sachin Kumar	Web
10	Bioanalytical Techniques and Bioinformatics	Biotechnology	Dr. Nitin Chaudhary, Dr. Vishal Trivedi	Web
11	Fundamentals of Biotechnology	Biotechnology	Dr. Vishal Trivedi	Web
12	Catalyst Science and Technology	Chemical Engineering	Dr. Mahuya De	Web
13	Chemical Engineering Design - II	Chemical Engineering	Dr. Animes Kr. Golder, Dr. Vaibhav V. Goud	Web
14	Chemical Technology - II	Chemical Engineering	Prof. U. Ramagopal	Web
15	Fuel Cell Technology	Chemical Engineering	Dr. Anil Verma, Prof. S. Basu	Web
16	Unsaturated Soil Mechanics	Civil Engineering	Dr. TadikondaVenkata Bharat	Web

17	Heat Transfer	Chemical Engineering	Dr. Anil Verma	Web
18	Interfacial Engineering	Chemical Engineering	Prof. Pallab Ghosh	Web
19	Stochastic Processes	Mathematics	Prof. N. Selvaraju, Prof. S. Dharmaraja	Web
20	Mass Transfer Operations I	Chemical Engineering	Dr. Chandan Das, Prof. S.K. Majumder	Web
21	Molecular Simulations in Chemical Engineering	Chemical Engineering	Dr. Ashok Kumar Dasmahapatra, Prof. Tamal Banerjee	Web
22	Process Control and Instrumentation	Chemical Engineering	Prof. P.K. Saha	Web
23	Bio-organic chemistry	Chemistry and Biochemistry	Dr. S.S. Bag	Web
24	Chemistry of Materials	Chemistry and Biochemistry	Prof. M. Quereshi	Web
25	Environmental chemistry	Chemistry and Biochemistry	Dr. Chivukula Vasudeva Sastri, Prof. T. Pal	Web
26	Principles of Organic Synthesis	Chemistry and Biochemistry	Prof. T. Punniyamurthy	Web
27	Reagents and Organic reactions	Chemistry and Biochemistry	Prof. T. Punniyamurthy	Web
28	Catalytic Asymmetric Synthesis	Chemistry and Biochemistry	Prof. T. Punniyamurthy	Web
29	Bio-Organic Chemistry of Natural Enediyne Anticancer Antibiotics	Chemistry and Biochemistry	Dr. S.S. Bag	Web
30	Introductory Inorganic Chemistry	Chemistry and Biochemistry	Dr. Chandan Mukherjee	Web
31	Basic Organic Chemistry	Chemistry and Biochemistry	Prof. T. Punniyamurthy	Web
32	Construction Economics & Finance	Civil Engineering	Dr. Bulu Pradhan	Web
33	Geo-environmental Engineering	Civil Engineering	Prof. S. Sreedeep	Web
34	Ground Water Hydrology	Civil Engineering	Prof. Rajib K. Bhattacharjya	Web
35	Probability Methods in Civil Engineering	Civil Engineering	Dr. C. Mallikarjuna	Web
36	Financing Infrastructure Projects	Civil Engineering	Dr. Laishram Boeing Singh	Web
37	Structural Reliability	Civil Engineering	Dr. Arunasis Chakraborty	Web

38	Computational Number Theory & Cryptography	Computer Science and Engineering	Dr. PinakiMitra	Web
39	VLSI Design Verification and Test	Computer Science and Engineering	Prof. Jatindra Kumar Deka, Dr. Santosh Biswas	Web
40	Human-Computer Interaction	Computer Science and Engineering	Dr. Samit Bhattacharya, Prof Pradeep P Yammiyavar	Web
41	Design fundamentals	Engineering Design	Prof. UtpalBarua	Web
42	Digital Control System	Electrical Engineering	Dr. IndraniKar, Prof. S. Majhi	Web
43	Introduction to Hybrid and Electric Vehicles	Electrical Engineering	Prof. S. Majhi, Dr. Praveen Kumar	Web
44	Cultural Studies	Humanities and Social Sciences	Dr. Liza Das	Web
45	Indian Society - Issues and Problems	Humanities and Social Sciences	Dr. SambitMallick, Dr. Liza Das	Web
46	Introduction to Sociology	Humanities and Social Sciences	Dr. SambitMallick	Web
47	Science, Technology and Society	Humanities and Social Sciences	Dr. SambitMallick, Prof. Archana Barua	Web
48	Number Theory	Mathematics	Prof. AnupamSaikia	Web
49	Partial Differential Equations	Mathematics	Prof. Rajen Kumar Sinha	Web
50	Advanced Engineering Thermodynamics	Mechanical Engineering	Prof. P. Mahanta	Web
51	Engineering Drawing	Mechanical Engineering	Prof. P.S. Robi	Web
52	Gas Dynamics	Mechanical Engineering	Dr. Vinayak Kulkarni	Web
53	Nonlinear Vibration	Mechanical Engineering	Prof. S.K. Dwivedy	Web
54	Theory & Practice of Rotor Dynamics	Mechanical Engineering	Prof. Rajiv Tiwari	Web
55	Mechatronics and Manufacturing Automation	Mechanical Engineering	Dr. Shrikrishna N. Joshi	Web
56	Advanced Statistical Mechanics	Physics	Prof. S.B. Santra	Web
57	Physics of Magnetic Recording and Recording Media	Physics	Prof. A. Perumal, Prof. A. Srinivasan	Web
58	Spintronics: Physics and Technology	Physics	Prof. A. Perumal	Web

59	Queuing Systems	Electronics and Communication Engineering	Prof. S.K. Bose	Web
60	Signal Detection and Estimation Theory	Electronics and Communication Engineering	Prof. R. Sinha	Web
61	Basic Biology	Biotechnology	Dr. Vishal Trivedi	Web
62	Experimental Biotechnology	Biotechnology	Dr. Nitin Chaudhary, Dr. Vishal Trivedi	Web
63	Mathematical Physics - 1	Physics	Prof. Saurabh Basu	Web
64	Microbiology	Biotechnology	Prof. Gurvinder Kaur Saini	Web
65	Design for Manufacture and Assembly(DFMA) for Industrial Design	Engineering Design	Dr. Abinash Kumar Swain	Web
66	Continuum Mechanics	Mechanical Engineering	Dr. A. Narayana Reddy	Web
67	English Language and Literature	Humanities and Social Sciences	Dr. Liza Das, Prof. Krishna Barua	Video
68	Design Verification and Test of Digital VLSI Circuits	Computer Science and Engineering	Prof. Jatindra Kumar Deka, Dr. Santosh Biswas	Video
69	Engineering Drawing	Mechanical Engineering	Prof. P.S. Robi	Video
70	Mass Transfer Operations I	Chemical Engineering	Prof. B. Mandal	Video
71	Heat Transfer	Chemical Engineering	Prof. A.K. Ghoshal	Video
72	Process Design Decisions and Project Economics	Chemical Engineering	Prof. Vijay S. Moholkar	Video
73	Advanced Hydraulics	Civil Engineering	Dr. Suresh A Kartha	Video
74	Formal Languages and Automata Theory	Mathematics	Prof. DigantaGoswami, Dr. K.V. Krishna	Video
75	Nonlinear Vibration	Mechanical Engineering	Prof. S.K. Dwivedy	Video
76	Theory & Practice of Rotor Dynamics	Mechanical Engineering	Prof. Rajiv Tiwari	Video
77	Ergonomics for beginners: Industrial design perspective	Engineering Design	Prof. DebkumarChakrabarti	Video
78	Complex Analysis	Mathematics	Dr. P. A. S. Sree Krishna	Video

79	Advanced Control Systems	Electronics and Communication Engineering	Prof. S. Majhi	Video
80	Cultural Studies	Humanities and Social Sciences	Dr. Liza Das	Video
81	Game Theory and Economics	Humanities and Social Sciences	Dr. Debarshi Das	Video

C. Global Initiative of Academic Networks (GIAN)

Global Initiative of Academic Networks (GIAN), an initiative of Govt. of India for Higher Education, was started in 2016. The major aims of GIAN are to tap the international pool of talented scientists/entrepreneurs with an objective to encourage their engagement with the institutes of Higher Education in India. The initiative is aimed to augment the country's existing academic resources, accelerate the pace of quality reform, and elevate India's scientific and technological capacity to global excellence. In the reporting year, 15 such courses were conducted by erudite scholars from international universities/institutions at the Institute.

GIAN Phase I

In GIAN phase I, IIT Guwahati offered a total of 15 courses as mentioned in the following table. All the GIAN courses were video recorded and webcasted by Centre for Educational Technology, IIT Guwahati.

Table 5: List of GIAN courses offered by IIT Guwahati in GIAN Phase I (2016)

S. No.	GIAN Course Title	International Expert	Indian Expert	Duration
1	Multiphysics Coupling in Energy Storage	Dr. Partha P. Mukherjee, Texas A&M University (TAMU), USA	Dr. AmareshDalal, Mechanical Engineering	26 Jun 2017 to 30 Jun 2017
2	Scalable On-chip Interconnects for many-core Systems	Dr. Maurizio Palesi, University of Catania, Italy	Dr. John Jose, Computer Science & Engineering	24 May 2017 to 30 May 2017
3	Advanced Sinusoidal Modeling of Speech and Applications	Prof. YannisStylianou, University of Crete, UK	Prof. S. R. MahadevaPrasanna, Prof. S. Dandapat, Electronics & Electrical Engineering	26 Dec 2016 to 30 Dec 2016
4	Integration of Molecular Design to Process Simulation for the Development of Industrial	Dr. Jose Palomar, Universidad Autonoma de Madrid, Spain.	Prof. Tamal Banerjee, Chemical Engineering	12 Dec 2016 to 17 Dec 2016

	Chemical Products and Processes			
5	Design of Electric Vehicle Systems	Dr. Kari Tammi, Aalto University, Finland	Dr. KarunaKalita, Mechanical Engineering	28 Nov 2016 to 09 Dec 2016
6	161006L01: Electricity Systems and Future Scenarios	Dr Richard Blanchard, Loughborough University, UK	Prof PinakeswarMahanta, Mechanical Engineering	6 Nov 2016 to 11 Nov 2016
7	161006B02: Reservoir Simulation – Mathematical Techniques in Oil and Gas Recovery	Prof. MayankTyagi, Louisiana State University, Baton Rouge, USA	Prof. Anugrah Singh, Chemical Engineering	18 Jul 2016 to 29 Jul 2016
8	Advances in Ultra-precision Machining Processes	Dr. SauravGoel Queen's University Belfast, UK	Dr. Shrikrishna N. Joshi, Mechanical Engineering	4 Jul 2016 to 15 Jul 2016
9	Infrastructure Projects Planning and Modelling	Dr. HemantaDoloi, University of Melbourne, Australia	Dr. L. Boeing Singh, Civil Engineering	27 Jun 2016 to 08 Jul 2016
10	Distributed Network Algorithms	Dr. Stefan Schmid, Aalborg University, Denmark	Dr. ParthaSarathi Mandal, Department of Mathematics	27 Jun 2016 to 01 Jul 2016
11	Green Material Forming and Joining	Prof. Jay S. Gunasekera, Ohio University, USA	Dr. R. Ganesh Narayanan, Mechanical Engineering	06 Jun 2016 to 11 Jun 2016
12	Boiling Heat Transfer	Prof. Vijay Dhir, University of California, Los Angeles, USA	Prof. Gautam Biswas & Dr. AmareshDalal, Mechanical Engineering	23 May 2016 to 03 Jun 2016
13	Campaigns, Media & Influence	Prof. Holli A. Semetko, Emory University, USA	Dr. PahiSaikia, Department of Humanities and Social Sciences	16 May 2016 to 20 May 2016
14	Optimization Methods for Engineering Planning and Design	Prof. Fouad Bennis, Ecole Centrale de Nantes, France	Prof. Rajib Kumar Bhattacharjy, Civil Engineering	04 May 2016 to 08 May 2016
15	Optimization Methods to Groundwater	Prof Konstantinos Katsifarakis, Aristotle	Dr. Manish Kumar Goyal, Civil Engineering	07 Mar 2016 to 11 Mar 2016

	Resources Management	University of Thessaloniki, Greece		

GIAN Phase II
In GIAN phase II, IIT Guwahati has submitted a total of 38 course proposals. Out of these 38 proposals, 1 proposal is already approved, 7 proposals are approved by Chairman, Sectional Committee but approval of GIAN APEX body is still awaited, remaining are likely to be approved.

D. National academic depository (NAD)

Following National Conference for Awareness on National Academic Depository (NAD), held at VigyanBhawan, New Delhi, on September 9, 2016, and Regional Training Workshop on NAD, held at Gauhati University, Assam, on September 30, 2016, IIT Guwahati aimed at lodging its academic awards with one of the two approved depositories viz. NSDL Database Management Limited (NDML) and CDSL Ventures Limited (CVL); and the focus for starting the process was with the students to graduate by the end of 2016-17 academic session.

Accordingly, the Pass Certificates and Transcripts of the graduating students were digitally signed and uploaded to the portal of CVL; and seeding of the awards with AADHAR/NAD IDs made available by the concerned graduates is presently on. It is expected that, for the concerned academic awards, all the stakeholders (graduates, employers, admitting educational institutions, verification agencies etc.) will be able to avail the services as per NAD objectives.

As regards past academic awards, works are in progress; and, the set objective has been to complete lodging of awards of at least past 10(Ten) years in to the NAD by the end of academic year 2018-19.

D. Creating Digital learning Environment for Design in India - E-Kalpa

Digital-learning Environment for Design in India also called 'e-kalpa,' is sponsored by the Ministry of Human Resources and Development, Government of India as part of the National Mission in Education through Information and Communication Technology. It focuses on knowledge accumulation, storing and dissemination and education in four sectors - University, Industry, government and the Informal sector.

The project deliverables were developed in two phases - Phase I -commenced in September 2009 and was completed in June 2015. Phase II is on going.
The project aimed to meet the following key objectives:

- Generating Digital online content for learning Design with distance e-learning courses
- Developing a Social Networking site for Higher and Collaborative Design Learning that encourages Synchronous and Asynchronous Interaction

- Creating a Digital Design Resource Database, which includes indigenous arts and crafts
- Providing greater access and enhanced acquisition of critical knowledge, skills, and abilities for economic and social development in our country.

Design can be a significant contributor for the economic Development of our country. Design Education plays a key role in training young minds. The E-kalpa Project mainly aimed at Creating Digital learning Environment for Design in India. All content generated on its' website www.dsource.in is uniquely India centric. The contents highlight

- Design content in the context of a country like India highlights a very significant role in finding appropriate solutions to its problems
- Design brings sensitivity and awareness to Indian 'Arts, Crafts, Culture and Environment'
- Design helps students develop values, attitudes, sensorial skills and critical thinking and makes the students realize their creative and innovative potentials
- Design has a positive social impact on the whole society, if it can reach the masses and the design knowledge acquired is used to enhance their quality of life and also help many of them to become entrepreneurs.
- Design and Innovation can make a big difference to the expected growth of creative needs in our country and this in turn can bring in the competitive edge in the local and world market

The Digital-learning Environment for Design in India or e-kalpa website (www.dsource.in) is organized into sections such as courses, resources, case studies, gallery and showcase and includes learning material spanning transportation communication, product, animation and film design as well as indigenous art and crafts.

Courses (100 subjects):

Through the very strong medium of visuals for knowledge dissemination, these highly engaging courses employ a vivid mix of videos, images and precise content to help teach subjects ranging from the very basic to the more advanced on various design related topics. This also caters to the very practical need of reaching out to the most inaccessible parts of India through technology.

Resources (300 resources):

A well-documented repository of fine examples of indigenous Design, Crafts and Arts in terms of their cultural roots, processes of making and their contemporary interpretations. The benefits are twofold- access to country's traditional 'database' as a good starting point for exploration and creativity, as well as documenting design traditions that might otherwise have been lost forever.
Gallery (550 topics) -

An innovative open resource bank for design in India, 12x12 or Bara by Bara encourages contributions from varied backgrounds and disciplines across India to document either a subject, theme or an activity relevant to the learning of design, design process with examples; in a concise format of a dozen images, each described in more than a dozen words.

Case Studies (140 projects):

Accessible as web pages or slide-shows, successful projects (professional and student) are showcased here. With design process as the core emphasis, these examples inform, inspire and encourage visitors towards learning approaches adopted by the design community. This in turn creates an open source space for design documentation and archival in the country.

Showcase (18 professional designers works):
Featuring leading design entrepreneurs and firms from across the country, this segment focuses on their work, design approach, journey and success stories.
Website: www.dsource.in

Partnerships:

This initiative 'e-kalpa' has been developed in collaboration by the three institutions- IDC at IIT Bombay, NID at Bangalore and DOD at IIT Guwahati along with the support of other design faculty and professionals from Design related institutions and organizations across India. The project outcome is a result of partnership with design related institutions and organizations who have contributed to its efforts in developing the content.

The three Principal Investigators' on the E-kalpa Project are:

- Prof. Ravi Pooviah, IDC, IIT Bombay
- Prof. Ravi MokashiPunekar, Dept of Design, IIT Guwahati
- Prof.BhibudutaBaral, N.I.D, Bengaluru

Contact:
Phone: +91 22257 64827 / 4815 /7820
contact@dsoure.in
Write up submitted by:
Prof. Ravi MokashiPunekar
Department of Design, IIT Guwahati

F. E-Procurment and Government e-Marketplace

In compliance to the instruction given by the GFR 2017(GOI) Rule 149 and Rule 159 to 166 making Government e-Marketplace (GeM) and e-procurement and e-publishing in CPPP, mandatory and the instruction received subsequently from Dept. of Expenditure GOI vide Notification No.10/11/2011PPD dated 17th May, 2016 and MHRD notification vide No. F.No.32-18/2016-TS 7th April, 2017, to comply with the GFR 2017, IITG has taken the following actions:

GeM Workshop

GeM training-workshop wasorgainized by the Stores and Purchase Section, IITG, on 23rd May, 2017 at the Conference Hall No.3 of the Institute. The members of the training team were (1) Mr. MayankBisht, Director DGS&D, (2) Mr.Rajesh Jain, Director DGS&D, (3) Mr. Ajay Kumar, Asst. Director DGS&D, and (4) Mr. A.K. Srivastav, OSD IIT Roorkee.

The Workshop was attended by 137 including faculty and staff of IITG and 7 members from North-Eastern Space Applications Centre, Shillong.

The Workshop was opened with a welcome speech by the Registrar, IITG and presentation of memento to the resource persons by the Deputy Director. There were two sessions: the first session was devoted to the talk on GeM and the second session was devoted to question and answer time. As the outcome of the Workshop, the process of registration on GeM portal is being taken up by the S&P Section, IITG. As on date the Stores and Purchase (S&P) Section as the pilot section is in a position to implement the same.

E-procurement Workshop

E-procurement training-workshop was orgainized by the Stores and Purchase Section, IITG, on 14th June, 2017 at the Conference No.2 of the Institute. The members of the training team were (1) Ms. Kabita Roy Das, Technical Director, NIC,Assam State, (2) Mr. BibhutiBhusanDeori, Snr. Trainer, NIC,Assam State and (3) Mr. Bhargav Das, Snr. Trainer, NIC Assam State.

The Workshop was attended by 100 (as per attendance reg.) faculty and staffs of the Institute.

The Workshop was opened with a welcome speech by the Registrar, IITG and a presentation of memento to the resource persons by the Deputy Director. There were two sessions: the first session was devoted to the talk on theoretical part of e-procurement and the second session was devoted to the application of e-procurement and question and answer. As the outcome of the Workshop, the process of registration on e-procurement portal is being taken up by the S&P Section, IITG. It is expected to be implemented in about one to two months.

G. Office Automation

The "*IITG Office Automation*" project was started keeping in view to automate various office related works of IIT Guwahati. The first online application developed in-house was 'Students Course Registration'. With days passed, many new in-house applications has been developed and implemented. Currently, we have a total of *forty nine* (47) applications, which runs throughout the year from time to time. The various online applications that are categorized under specific groups are:

1. Academic: Students Course Registration, Students Course Feedback, Students Profile, Convocation Registration, PG applications processing, Scholarship processing, New Students Registration, Course Alias, TA Attendance and Performance, Training and Placement and NAD Application.

2. Administration: Staff and Faculty Administration, Staff and Faculty Leave System, No Dues Application, APAR Application, R&D Project Resource Management System, ID Card Application for staff and faculty and Recruitment

3. Finance & Accounts: Online Payment, PDA Application, PF Application, Payroll System, GMIS Application, Sishugram Voluntary Contribution, Electricity Billing System and Telephone Bill Reimbursement.

4. Miscellaneous: Gymkhana Application and Medical Section Application

5. Applications Under Development: BUDGET Application, Departmental Library Application, Student Affairs Automation, File Tracking System, Record Archival & Management System and No Dues Application for Students

H. RnDOPs: R&D Automation System

RnDOPs is an in-house office automation system built to automate the processes involved at the Research & Development (R&D) section of IIT Guwahati. It is a web based centralized client server system running in one of the servers present at the Computer and Communication Center of IIT Guwahati. RndOPs was built with the following objectives:

a) To build a digital archive of all data generated at the R&D section
b) To reduce the amount of paper generated at the R&D section, and
c) To increase the speed and efficiency of form processing at the R&D section.

RnDOPs is an organization level software with a large user base. It is used regularly by around 100 students, 300 project staffs, 250 faculty, 31 independent researchers, 35 technical officers and 23 R&D Staff. Since its launch till date, 10378 forms have been processed via the RnDOPs system. Almost all official forms (around 40) used at the R&D section have been digitized and made available in the RnDOPs system.

Apart from the regular official forms, RnDOPs system has many functionalities that are typical of an ERP system, like attendance marking utility for project staffs, a form tracking facility, in-charge assignment, report generation, task reallocation of R&D staff, user profile updation, etc. The interface of the RnDOPs system has been designed with an aim to be aesthetically pleasing to the users. Accessing the RnDOPs system is permitted only to those users who are registered with the R&D section and have a valid institute webmail id. The system is pretty simple to use. Once a user logs in, he/ she is presented with a home page that has a dashboard that listing the pending tasks one has to perform. New notifications to an user are

shown by a bell icon at the top-right region of the home page. At the top-left region of the page, one can find a dropdown menu called 'Utilities'. This drop down menu lists all the forms that the particular user is allowed to access currently. On opening any one of the utilities, the user is redirected to a new page that shows the corresponding form. In each of these form pages, a User Manual is provided to assist the user in case of any difficulty.

Now all the data generated out of R&D section activities is now available in digital form. The same is being used for different analytics purpose. The paper usage has significantly reduced, by about 80% and the time for processing is also reduced by significant amount and is less than 10% of earlier time for processing by paper mode.

*****

IIT PATNA

Work done and initiative taken by IIT Patna in creating digital content and innovation in improving teaching process

In the changed global scenario of digital technology driven teaching-learning, involving flipped class rooms, MOOCs, Blended MOOCs and techniques like think-pair-share etc, lot of initiatives have been taken by IIT Patna in the area of Technology Enabled Learning and to explore the potential of ICT in technical education.

1) Under Pandit Madan Mohan Malvya National Mission on Teachers and Teaching (PMMMNMTT), MHRD, Govt. India scheme, IIT Patna has developed a Teaching Learning Center on Internet of Things (TLC-IoT). In this center, the laboratories developed will provide an online access to students inside and outside the campus to carry out their experiments. Also, they will be able to see the physical equipment and do experiments online from any part of the world.The center has conducted one 40hr lecture course on "Smargrid: Cyber Physical Energy Systems", in which all the lectures are recorded and stored. Also, in future many such courses like Embedded systems, Smart buildings and Smart Electric distribution system etc. are planned to be conducted. The stored contents can be used whenever an online program on these courses will be offered by IIT Patna.

2) IIT Patna has conducted online courses for Accenture, Elsevier, LG,EZDI etc. in the areas of Artificial Intelligence, Natural Language Processing and Machine Learning.

3) Following courses were conducted through the Global Initiative for Academic Networks (GIAN), sponsored by MHRD, Govt. of India.

- Cognitive Science for Computational Linguists
- Modeling approaches of Nanoscale filtration processes of solutions and Suspensions
- Introduction to Natural Language Processing
- Advanced Wireless Networks: Joint Design of Technology and Business Models
- Number Systems for Digital Signal Processing
- Hierarchical Computational Methods for Cross-disciplinary Multiscale Dynamics
- Multiobjective Optimization
- Internet of Things (IoT) Security: Issues, Innovations, and Interplays

- Contemporary Youth Studies
- Reliability Engineering and Fault Tolerant Computing

Digital content were created out of these courses consisting of lectures delivered by experts from foreign and Indian universities. These contents can be used for creating various online courses through MOOCS.

4) IIT Patna is working in with IIT Delhi as part of IIT –PAL, for providing online lectures and tutorials to IIT- JEE aspirants. So far many lectures have been recorded by the faculty membersfrom IIT Patna at IIT Delhi. To create the HD recording facility at IIT Patna, the budget has been included in the current financial year.

5) Various online courses are in process of development under Continuing Education Programme (CEP), IIT Patna. Also, many courses have been planned to be organized through Massive Open Online Courses (MOOCS). The proposal is attached herewith.

6) Few online courses like Infrastructure Economics and Economics of IPR have been developed by IIT Patna as part of MOOCs – NPTEL.

7) Prof. Vijay Kumar a leading expert in digital teaching and learning from MIT, USA will be the guest of honor in the 5th convocation of IIT Patna.He will interact with the administration and faculty members of IIT Patna for creating digital contents and innovations to improve the teaching process.

Apart from the above initiatives, the faculty members at IIT Patna use state of the art technologies to deliver lectures and interact with students anytime anywhere.

IIT BOMBAY

e-Yantra

The e-Yantra project, under PI Prof. Kavi Arya, started as an embedded systems and robotics outreach project (funded by MHRD under NMEICT) at IIT Bombay. Through its various initiatives it addresses learning and training and infrastructure setup needs of students, teachers and colleges of undergraduate engineering colleges in India. It has since come a long way since its inception in 2012 and reaches out to students through a National Robotics Competition (eYRC) that is unique in that it presents a level playing field to students.. This competition has been growing exponentially in its registrations since 2012 with 2500, 6500, 12500, 19500 and last year 22608 registrations. Through this competition e-Yantra empowers students with embedded systems, robotics and design skills. The prizes are a coveted e-Yantra 6-week summer internship (eYSIP) at IIT Bombay.

e-Yantra lab setup initiative (eLSI) assists colleges to build infrastructure in engineering colleges. The process includes a 2-day onsite workshop and 3 -4 months task-based training (TBT) on the e-Yantra robot provided to the teacher teams free of charge and the colleges setup their labs. These labs have become hubs of empowerment of students and teachers.

We also have an e-Yantra Ideas Competition (eYIP) that trains students to look at problems in their locality as opportunities for innovation and entrepreneurship. They submit proposals through their college. Shortlisted proposals are implemented using e-Yantra labs and finalists are chosen to demo their work in regional finals and then the main finals at IIT Bombay.

There are other initiatives in the e-Yantra project that complement this infrastructure by training teachers on an on-going basis through e-Yantra Resource Development Centre (eYRDC). Teachers are encouraged to contribute content on a paid basis to the rich corpus of training material being nurtured by e-Yantra. To enable students to take up real life problems and design and deliver original B.E projects, we have created a Farm Setup Initiative (eFSI) as one of the model test beds.

In summary, e-Yantra builds a community of empowered teachers and students and has evolved a model of empowerment to guide them towards building a startup environment centered around e-Yantra labs in their colleges. The important issue of scalability and sustainability of these initiatives are built into the models. e-Yantra helps create the resource to “Make in India” but since our students are embedded in the opportunity we urge them to “Make for India.”

Train 10,000 Teachers (T10KT)

T10KT is a project funded by NMEICT, through the Talk to a Teacher Project. T10KT uses modern ICT tools to train a very large number of college teachers, to scale up the professional development activity across the country. The project utilizes a blended format in which live lectures are transmitted synchronously

using internet based video conferencing software called `A-VIEW'. These large scale training workshops are conducted from a single location or hub (IIT Bombay/IIT Kharagpur), and 50 to 80 participants located at each of the 350 different geographical locations called Remote Centers (RCs), attend these workshops in synchronous remote classrooms. This hub and spoke training model is unique, as all three forms of interactions happen: 1) Synchronous interactions between the hub and RCs through A-VIEW and chat, 2) Asynchronous interactions between instructors, participants and coordinators through discussion forum (MOODLE) and email, and 3) Face-to-face interactions between participants and the coordinators in all RCs. Hence, this model can also be referred to as a "blended synchronous mode training" model.

A total of 357 RCs have been created across the country. Each RC is equipped with the A-VIEW setup with a good bandwidth and other infrastructure to conduct synchronous distance mode workshops. A total of 19 workshops were conducted by IIT Bombay and IIT Kharagpur. A total of 1,18,789 engineering college teachers have undergone two week long workshops through the methods mentioned above.

Spoken Tutorial

A Spoken Tutorial is a 10 minute long audio-video tutorial from which a student can self-learn ICT topics. Spoken Tutorial is funded by NMEICT, through the Talk to a Teacher project. Spoken Tutorials cover ICT topics, such as Office Productivity software, C, Java, PHP, Drupal, Python, Scilab, PERL, Ruby, and LaTeX, through open source software. Spoken Tutorials are available from the website http://spoken-tutorial.org free of cost. The following are the salient features Spoken Tutorials:

1. Spoken Tutorials are created for self-learning.
2. The spoken part of these tutorials are dubbed into all 22 of our languages.
3. We have created an offline application that allows a student to learn from Spoken Tutorials offline. This helps a student to learn from Spoken Tutorials when Internet is not available.

We have a total of 850 Spoken Tutorials in about 50 topics. Including the dubbing in our languages, we have a total of about 7,000 Spoken Tutorials.

Because of the design, Spoken Tutorials have been accepted in a big way in many colleges across the country. We give below some statistics:

- We have trained a total of 35 lakh students during the past six years, in some ICT topic or other.
- This training has been achieved uniformly. In every state, 10% of all students enrolled in every bachelor's degree (B.A., B.Sc, Bcom, B.E., B.Tech, MBBS) have been trained in one ICT topic or other.
- Spoken Tutorials are officially used in 23,000 college lab courses, in more than 100 universities.

- There have been more than 22 million page views of our web page. Our actual use is 50 times this number, because of the offline version of Spoken Tutorials.

E-Kalpa

Another MHRD/ NMEICT initiative named "e-Kalpa" creating Digital-Learning Environment for Design in India has successfully demonstrated the achievement of the following project objectives:

1. Digital online content for learning Design with e-Learning programs on Design
2. Digital Design Resource Database including the craft sector
3. Social networking for Higher Learning with collaborative Learning Space for Design
4. Dissemination and collaboration with institutes of Design

As of June 2017, the content of e-Kalpa website named "D'source" includes 150 Courses on Design Learning in different domains, 600 Resources in the form of fine examples of Design and crafts, 250 Case studies of Design Projects undertaken by professionals and design students, 50 Video lectures and presentations by subjects experts and 1000 examples of a visual Gallery that has documented works of the rich tradition of art and design seen across different regions of India. D'source has become the top destination for open access resources on design in India with 350gb of content created and uploaded on the web-space www.dsource.in.

Free and Open Source Software for Education (FOSSEE)

FOSSEE project sanctioned to IIT Bombay has been promoting use of open source software in educational institutions (http://fossee.in). It does through instructional material, such as spoken tutorials, documentation, such as textbook companions, awareness programmes, such as conferences, training workshops, and Internships.

FOSSEE initially started as the acronym for "Free and Open Source Software for Engineering Education", with a focus on Engineering. Because of the good progress, the project team was asked by NMEICT to extend it to Sciences first and then to every field of education.

Textbook Companion (TBC) is a collection of code for solved examples of standard textbooks. About 2,000 college students and teachers have participated in this activity & close to 1,000 TBCs have been created in Scilaband Python alone. FOSSEE has made all the TBCs open source and has made them available for free download. Scilab and Python TBCs are also on the cloud, so that one needs only a browser to access/execute the codes of TBC.
FOSSEE is promoting the well established open source software: OpenFOAM, an alternative to the proprietary software Fluent for computational fluid dynamics; DWSIM, an alternative to the proprietary software Aspen Plus, for chemical process

simulation; Open Modelica, a state of the art modelling and simulation environment. FOSSEE has also undertaken several new open source software activities as well: raising Scilab toolboxes to that of Matlab; development of eSim, an electronic design automation software, an alternative to ORCAD. The FOSSEE team works on open source hardware projects, such as Open PLC and Arduino as well. Through all of these projects, a large number of students across the country have been trained.

भारतीय प्रौद्योगिकी संस्थान इन्दौर
सिमरोल, खण्डवा रोड, इन्दौर, भारत - 453 552

Indian Institute of Technology Indore
Simrol, Khandwa Road, Indore, India - 453 552

No. IITI/RO/13/2017/250 June 30, 2017

Ms. Trupti Gurha
Director (IITs)
Ministry of Human Resource Development,
Department of Higher Education,
Technical Section- I, ShastriBhawan,
New Delhi-110115

Subject: Information from IIT Indore on digital Initiatives – reg.

Ref: Letter no. F.No.32-11/2017-TS. I and e-mail dated June 28, 2017.

Madam,

I am to invite a reference to the letter cited on the above subject.

The requisite information on the above subject is attached herewith as **Annexure 1** (03 Pages) for your kind information please.

Also, kindly be informed that due to pre-occupation for preparation of the 12th meeting of the Senate of IIT Indore scheduled on 10th July 2017, the Director, IIT Indore and Dean, Academic Affairs will not be able to attend this event. Consequently, Associate Dean, Academic Affairs Dr. E. Anil Kumar will represent IIT Indore in this event.

Thanking you,

Yours sincerely,

(S.P. Hota)
Registrar I/c, IITI

ANNEXURE-1

Indian Institute of Technology Indore

Initiative for Digitization and Making Activities Online

Since from its start in July 2009, IIT Indore has been continuously striving to make its various activities and payments online strongly emphasizing paperless and cashless functioning of the Institute so as to be environment-friendly by saving paper and other resources used in offline activities. During July 2009 to January 2011, IIT Indore's mentoring Institute i.e. IIT Bombay handled the academic records of IIT Indore. In Feb. 2011, all the academic records and data were transferred to IIT Indore. Presently, following academic and other activities are being done online or in digitized manner at IIT Indore:

- Online teaching resources using "Moodle"
- Online availability of all the Academic Rules, Policies, Curriculum and Courses of Study and different types of forms for students, faculty members and staff members, formats for theses.
- Maintaining, updating the academic records and profile of all the students and sorting and retrieving them on the basis of various criteria [i.e. academic program, current status of the student (i.e. graduated, studying, withdrawn, etc.) year of admission, admission category, birth category, year of study, department, gender, blood group]
- Different authorities and users are provided different types of privileges to access and use the online available data and information.
- Advertisement and online application for admission to MTech and PhD programs
- Allotment of course for upcoming semester by the concerned Heads
- Preparation of time table for classes and examinations
- Online course registration
- Online course adjustment
- Online attendance system for students and staff members
- Generation of attendance sheet for different courses
- Feedback by students about the course and its instructors
- Grade submission by the concerned course coordinators
- Grade viewing by the concerned student only
- Generation of grade sheets
- Generation of Master Grade Sheet and Transcript (final and interim both)

- Application for branch change
- Booking of classrooms and meeting rooms
- Application for No-dues by the graduating students and online clearance by the concerned lab staff and faculty members
- Application for Merit-Cum-Means and other types of scholarships and remission of tuition fee
- Online transfer of scholarships and fellowships to the students of different academic programs
- Digitization of degrees issued from 2013 to 2016
- Classrooms equipped with Digital Podium and other state-of-art audio visual teaching and learning aids.
- Virtual classroom (VCR) under National Knowledge Network (NKN) enabling remote learning and/or remote teaching, recording of lectures, etc.
- Attending and conducting various meetings, interviews, webinars, conferences, discussions, address by the President to the Institutes of Higher learning and other activities using state-of-art video conferencing facility saving significant money and time.
- Online records of different types of publications by various faculty members
- Details of different Research projects, consultancy projects, CEP courses, and GIAN courses conducted by faculty members
- Generation of Utilization Certificates for different research and consultancy projects
- The Central Library of IIT Indore has automated its in-house activities by using Koha, an Open Source Integrated Library Management Software. The Koha facilitates issue-returns of documents, overdue reminders, online reservations of documents, managing Books, e-books and e-journals record, OPAC Search, etc.
- Bar Code Technology is being used for issue/ return of books at the Circulation Counter. The library has developed an Institutional repository for 'Theses and Dissertations' and 'Faculty Publications' of IIT Indore by using Dspace Open Source Software. The late fine and book lost amount is being collected cashless through the Institute's Smart Card facility. The Library is using QR codes to provide quick access to users to the library website, library OPAC, and recommendation

- Forms for books and journals, etc. A mobile app has been developed by the library to provide its users quick access to library resources and services on their mobile.
- Online payment of application fee for different academic programs and for recruitment to faculty, staff and administrative positions
- Online transfer of salary to all the employees and receipt of any kind of payments online through online
- All the students, faculty and staff members are issued Smart Card instead of Identity cards which can be used for cashless transactions within the institute such as payment of dining charges, accommodation charges, guest house charges, etc. and for access to different laboratories and other high security areas.
- All the Institute and authorized vehicles have been provided RFID tag enabling them automatic entry to Institute campus through the automated boom barriers installed at the entry gates.
- All the limited, open, advertised tender documents, notice inviting tenders (NIT), Pre-bid meeting reports are regularly uploaded on the institute website and the Central Procurement Portal (CPP) website as part of Publishing.
- Earnest Money Deposits (EMD) and Bid Securities are received through online against purchase tenders.
- IITI is registered with CPP for Tendering online and also geared up for implementation of GeM as per GFR-2017.



IIT Kharagpur

Executive Summary

Indian Institute of Technology Kharagpur, has launched initiatives in six thematic areas of advanced research and development with focus on innovative products and services. Among these is Digital Convergence aimed towards integration of digital technologies with Education, Healthcare, Governance, and Complex Engineered Systems.

Of these the Institute has undertaken a number of R&D projects in the domain of digital convergence in the field of education. The projects cover new technology developments and platforms in the following fields:

4) National Digital Library (NDL): NDL makes learning resources accessible online through a single window search facility with filters through which users can personalize search results. It promotes self-learning and can be used by all leaners, at all levels, and in all subject areas. It is designed with user interfaces in most widely used Indian languages covering at least 90% of Indian population. NDL has launched a mobile application as well in addition to the web version. It now has more than 72 lakh content.

5) Global Initiative for Academic Network (GIAN): This programme aims to bring in international exposure in Indian academia by inviting reputed international faculty in the Indian academic institutes. While students get an opportunity to learn from them, faculty in India too can learn and share knowledge and teaching skills in cutting edge areas in addition to promoting research collaborations many of which have orientation towards India. The programme also facilitates participation of international students and industry people to attend the collaborative academic and research programmes. Through quality learning materials of international standard are created as well. It now has more than 800 courses approved with content developed for each

6) Teaching Learning Center for Pedagogy Design and Research (TLC): The project aims to improve the quality of School Education from Class 1-12. To cater to 21st century need of students, the project is building a team of Subject Matter Experts (SME) with understanding of latest pedagogical tools and technological interventions. This is enabling them to create most appropriate content for students and teachers and also actively demonstrate their use in schools to enhance quality of classroom transaction. It is helping to build online repository of Pedagogical elements and Teaching Learning Tools. It also conducts Awareness programs and Teacher Training programs.

5) Talk to 10K Teachers (T10KT): This program promotes sharing of teaching-learning experiences with teachers of Engineering Institutes across India through online training programmes. It encourages teachers in improving their teaching and research abilities and promotes greater participation of engineering college teachers in the recent developments in their respective fields. More than 50,000 teacher have been taught through this.

6) Moodle: Moodle facility at IIT Kharagpur is provided to the faculty members and students for enhanced teaching and learning experience. Moodle is being used for uploading of course materials, support for class assignments and evaluation, making and uploading of Video clips for better understanding of theory topics and laboratory experiments and support for on-line Class test, Quiz and their evaluations. It is a unique teaching interaction tool at IIT Kharagpur

7) Pedagogy: This project aims to reconstruct the structure of teaching-learning in engineering education, based on pedagogically established learning theories and practices. In this project, educational content needs to be restructured according to specific and measurable "Learning Objectives", which are to be linked to corresponding learning outcomes through targeted problems. This is a unique project with more than 150 courses and training of 600+ teachers having benefited.

8) The Beauty of Fluids: In this project Science is presented in visual form through videos which are used during classroom demonstrations and lectures in undergraduate and graduate courses engaging the students extensively in carrying out the above experiments. Nearly 150 unique science videos have been provided to the public for visualization of science phenomena.

9) National Programme of Technology Enhanced Learning (NPTEL): Under this programme IIT Kharagpur develops e-learning resources as a partnering institution in the form of video and web courses which are available on the NPTEL website and YouTube. Online certification courses are offered as well. Courses on Communication and Soft skill development as well as job oriented courses are offered. IIT Kharagpur has one of the largest contributions in NPTEL.

10) SWAYAM and SWAYAM Prabha: These are educational platforms in digital and electronic (TV) fields for telecasting high quality educational programmes by the faculty members from IITs and other reputed experts. The programmes are available on 24x7 basis for the benefit of students from the level of secondary school education to higher education with the aim to raise the issue of quality access to knowledge.

8) Virtual Labs: The Virtual labs project is aimed at providing near-hands-on experience tostudents in various laboratory topics in sciences and engineering using information and communication technology. The labs have central platform integration and easily deployable mechanism of delivery to any university student in the country. An open source development, deployment and management system has been put in place by the Virtual Labs consortium.

9) Society for Natural Language Technology Research (SNLTR): Through this collaborative project SNLTR and IIT Kharagpur carry out its activities in a multipolar manner, involving other academic and research institutes as well as industries. They have developed a Bilingual Linux System and Unicode compliant keyboards for Bengali, Hindi, Odia, Manipuri (Meetei) and Santhali (Olchiki) scripts.

10) Language Technologies: This project involves development of language technologies including natural language and speech processing. Tools and resources have been developed for working with Indian languages. Natural Language Processing involves development of Tools for Bengali language text processing, development of Resources for Bengali language text processing and development of Tools and Resources for Sanskrit while Speech Processing involves Speech Corpora and Speech interfaces in Indian languages

11) Digital Learning Research and Other Activities at Centre for Educational Technology: The Centre for Educational Technology at IIT Kharagpur has been a hub of e-content development for several years. The contents developed in form of video lectures or MOOCs have been used very effectively by the leaner population at large. It has been envisaged that potential of the developed contents may be augmented and evaluated with aid of Artificial Intelligence and Cognitive Science technologies. The Centre for Educational Technology has taken up the following research activities to automate different aspects of content development and organization.

12) Knowledge Dissemination Programme (KDP): IIT Kharagpur launched the first of its kind short modular courses preferably of ten hours duration on a niche topic for students, entrepreneurs, working professionals from R&D organizations and industry all over the country. The modular courses are conducted live through video conferencing.

15) Continuing Education Programme (CEP): CEP at IIT Kharagpur is engaged in providing continuing education and training to professionals from industries, R&D organisations and academia, providing opportunities to teachers and students of Engineering Colleges to update their knowledge through short term courses and for pursuing M.Tech. and Ph.D. degrees under the Quality Improvement Programme (QIP) of MHRD.

16) Enterprise Resource Planning (ERP) System: IIT Kharagpur has started implementing its' own web based ERP system which helps in automating administrative processes and services at the Institute and digitizing institute records. It is developed in-house using open source technologies like Java, Postgresql, Spring Framework etc.

This document further provides brief reports of the on-going projects in this domain.

Content

Sl.#	Project	Project Principal Investigator(s)
1	National Digital Library	Prof Partha P Chakrabarti, Prof. ParthaPratim Das, Dept. of Computer Science and Engineering
2	Global Initiative for Academic Network	Prof Partha P Chakrabarti Dept. of Computer Science and Engineering Prof. Amar Samanta, Dept. of Chemical Engineering
3	Teaching Learning Center for Pedagogy Design and Research	Prof. PlabanBhowmik, Prof. AnupamBasu, Centre of Educational Technology
4	Talk to 10K Teachers	Prof. Raja Datta, Dept. Electronics and Electrical Communications Engineering
		Prof. Raja Datta,

5	Moodle	Dept. Electronics and Electrical Communications Engineering
6	Pedagogy	Prof. S Das Mandal, Prof. Bani Bhattacharyya, Centre of Educational Technology
7	The Beauty of Fluids (Science in Visual Form)	Prof. Chirag Kalelkar, Dept. of Mechanical Engineering
8	National Programme of Technology Enhanced Learning	Prof. AnupamBasu, Prof. Bani Bhattacharyya, Centre of Educational Technology
9	SWAYAM and SWAYAM Prabha	Prof. AnupamBasu, Centre of Educational Technology
10	Virtual Labs	Prof. C S Kumar, Dept. of Mechanical Engineering
11	Society for Natural Language Technology Research	Prof. AnupamBasu, Centre of Educational Technology
12	Language Technologies	Prof. Sudeshna Sarkar, Dept. of Computer Science and Engineering
13	Digital Learning Research and Other Activities at Centre for Educational Technology	Prof. PlabanBhowmik, Prof. AnupamBasu, Centre of Educational Technology

14	Knowledge Dissemination Centre	Prof. AdrijitGoswami, Prof. SwagataDasgupta, Continuing Education Programme
15	Continuing Education Programme	Prof. AdrijitGoswami, Prof. SwagataDasgupta, Continuing Education Programme
16	Enterprise Resource Planning System	Prof. AdrijitGoswami, Enterprise Resource Planning

Project 1

National Digital Library (NDL India)

India is an old civilization and is emerging as a young nation with significant demographic dividend. To reap the advantages of this dividend, we need to educate a large population that is geographically widely spread, culturally diverse, economically disperse, and speaks one or more of 23 different Indian languages. The traditional educational infrastructure of schools, colleges, universities, and libraries in India is totally inadequate to meet this requirement. As FICCI Higher Education Summit 2013 Report "*Higher Education in India: Vision 2030*" points out – *India already has the largest higher education system in the world enrolling over 70 million students* and *to cater to the emerging needs through increase in brick and mortar institutions alone, India would have to build 6 universities and 270 colleges each and every month for 20 years – a feat that is impossible to achieve with India's limited resources. Instead, India has chosen to go the digital way*.National Digital Library of India (NDL India)has been conceived inthis context as a platform for change in the educational paradigms of India.

NDL India, an initiative of*Ministry of Human Resource Development (MHRD)*under its*NationalMission on Education through Information and Communication Technology (NMEICT)*, makeslearning resources accessible through a single window search facility with filters through which users can personalize search results.

NDL India is a movement to reach out to people at every corner of the country with educationalcontents of not just books, papers or theses but with class

lectures of experienced teachers, audio books and lectures, tutorials, assignments and solutions, simulations, animations, data sets, educational games, etc. through a single source access. It is for all leaners, at all levels, and in all subject areas. It is designed with user interfaces in most widely used Indian languages covering at least 90% of Indian population. It provides an infrastructure for self-paced purpose- centric learning. For example, it will facilitate students to prepare for entrance and competitive examinations, help researchers to perform inter-linked exploration from multiple sources, and enable learners to learn from best practices from all over the world. It will create platforms for collaborative learning environment through student-student, student-teacher and teacher- teacher collaboration. It is designed to support collaborative learning through plug-ins of India's own MOOCs platforms like *SWAYAM* and *SWAYAM Prabha*. It has triggered the concept of national licensing of publishers' contents that makes contents, which are normally priced, available to NDL India users for free – paving the way to democratize education in the country.

NDL India is an umbrella over existing digital repositories. It is*24x7-enabled*and stores *indexed metadata of contents*. A user locates the desired content by searching on metadata and then fetches the full-text content by clicking a link on the search result that renders the content from the source repository. Metadata are acquired through multiple channels such as harvesting *Institutional Digital Repository (IDR)* of institutes, crawling websites of global educational, research, and culture and heritage portals, and obtaining data from publishers through regular online feeds. To facilitate content contribution from institutions and to promote effective use of the library, NDL India regularly conducts training sessions and workshops on IDR and for users. More than 1200 professionals from more than 600 institutes from all across India have been trained in setting up digital repository to facilitate national dissemination of valuable learning contents created in these institutes. An *IDR Service* has been deployed to facilitate IDR set up for smaller institutes who cannot invest in hardware, software, and manpower to set up IDRs of their own.

NDL India is available as Web App (https://ndl.iitkgp.ac.in) and as a Mobile App on Android, which can be downloaded from Google Play Store for free. iOS& Windows Apps are to be released soon. Current user base is more than 18 lakh, mobile app download is more than 4 lakh and average daily hits are more than 50 thousand. Learners from more than 6000 institutions are using the library now. There are more than 72 lakh contents in more than 100 languages. These contents have been sourced from 10 school boards, more than 85 educational and research institutions, several NMEICT projects, question bank of 20 types of competitive examinations, several medical and legal sources, global educational portals and publishing houses.

Project 2

Global Initiative for Academic Network

In order to garner the best international experience into our systems of education, enable interaction of students and faculty with the best academic and industry experts from all over the world and also share their experiences and expertise to motivate people to work on Indian problems, The Government of India decided to launch a scheme called Global Initiative for Academic Network (GIAN) to invite internationally reputed academicians for fruitful academic activities in the higher education Institutes of India with the following objective:

- ❑ To increase the footfalls of reputed international faculty in the Indian academic institutes.
- ❑ Provide opportunity to our faculty to learn and share knowledge and teaching skills in cutting edge areas.

- ❑ To provide opportunity to our students to seek knowledge and experience from reputed International faculty.
- ❑ To create avenue for possible collaborative research with the international faculty

- ❑ To increase participation and presence of international students in the academic Institutes.
- ❑ Opportunity for the students of different Institutes/Universities to interact and learn subjects in niche areas through collaborative learning process.

- ❑ Provide opportunity for the technical persons from Indian Industry to improve understandings and update their knowledge in relevant areas.
- ❑ Motivate the best international experts in the world to work on problems related to India.

- ❑ Develop high quality course material in niche areas, both through video and print that can be used by a larger body of students and teachers.
- ❑ To document and develop new pedagogic methods in emerging topics of national and international interest.

IIT Kharagpur, the oldest and the biggest IIT in the IIT system of Institutions, has been entrusted to coordinate this initiative and is the National Coordinating Institute for GIAN.

Initially, Global Initiative of Academic Networks (GIAN) scheme will be used to bring in foreign academicians to teach courses in Indian Institutions of higher learning. These Institutions currently are IITs, NITs, IIITs, SPAs, IIMs, Central Universities and some UGC State Universities and some AICTE Engineering

colleges. Each course proposal is a one week (12 to 14 hours) ortwo week (24 to 28 hours) course which is taught by a Foreign Faculty in an Indian academic Institution, sometimes jointly with the Indian host faculty. Students and Faculty members of Indian institutions as well as members of industry, research institutions can participate in attending these courses. The Government has approved upto a maximum of $8000 / $12000 for a one week (12 to 14 hours) / two weeks (24 to 28 hours) course covering travel, honorarium, contingency, recording, lecture material preparation, etc. Other expenses are to be met from the fees collected from external registration from industry attendees, etc.

In the first phase of GIAN, 1236 course proposals are submitted by the 160 participating Institutes and 801 of them are approved by the GIAN implementation Committee. The Institutes have already conducted 666 courses and at least 666 foreign academic experts from 45 countries visited India to deliver lectures in these Institutes and are now gearing up to organize another 50 courses in near future which will ensure visits of another 50 foreign faculty. Subsequently, in the second phase of GIAN, nearly 1400 more proposals are submitted by the participating Institutes for conducting GIAN courses in the year 2017-2018. The review of these proposals is now being carried out by the eminent experts and already 90 proposals are approved in this phase. By December 2017, more than 1000 courses are targeted to be organized with participation of at least 1000 foreign experts.

Project 3

Teaching Learning Center for Pedagogy Design and Research

About TLC

The project aims to improve the quality of School Education from Class 1-12. To cater to 21st century need of students, the project is building a team of Subject Matter Experts (SME) with understanding of latest pedagogical tools and technological interventions. This is enabling them to create most appropriate content for students and teachers and also actively demonstrate their use in schools to enhance quality of classroom transaction.

The objectives of this project are as follows:

1. To build repository of Pedagogical elements and Teaching Learning Tools and making them available through portal-based service on the following 4 verticals:

2. Conducting Awareness programs and Teacher Training programs following the Horizontal Pedagogic Framework below:



Nine workshops have been organized on 'Science, Mathematics and Language' and two workshops on 'Learners with special needs' and one workshop on 'Programming skill development'. As part of Second Language Acquisition, the 3rd vertical, 9000 students datahave been collected which is working to address the problem of error corpora development.

The Nine workshops on 'Science, Mathematics and Language' were organized on the following:

1) Team Building, Strategy and action plan: Initial 5 workshops were organized to buildthe team on various subjects such as Life Science, Physical Science, Chemistry, Mathematics and English. The workshops had discussed the objectives of the project and the areas for intervene. Based on the discussion topics were identified for multimedia content development for repository and an action plan were formulated.

2) Video lecture recording on Physics experiments: A 3 days' workshop has beenorganized from 8th to 10th January, 2017 at Center for Educational Technology, IIT Kharagpur, where 28 school teachers and team coordinators participated in preparing a demonstration based pedagogical course content in the form of video lectures on selected topics of low cost experiment in Physics for Secondary level (Class 6-8)

3) Multimedia Content Development workshop: A 4 days' workshop has been organizedfrom 24th to 27th June 2017 at Center for Educational Technology, IIT Kharagpur where 31 Subject experts and teachers were oriented on Technological Pedagogical Content knowledge by 3 experts. The subject experts and teachers developed more than 20 scripts during the 4 days which are ready for production.

4) Active Teaching-Learning Workshop for teachers: Two 3 days workshops, one inSalboni and the other in Chandrakona were conducted with about 10 schools each comprising of teachers and students (approx 15 teachers and 45 students in each). The workshops were targeted to give a

hands-one experience to teachers on various experiments in Physics, Chemistry and biology where students also participated to provide that classroom environment.

Two workshops on 'Learners with special needs' were organized on the following:

Exploration of Pedagogic Principles and Tools for Learners with Special Needs was organized atIIT Kharagpur Extension Centre, Salt Lake, Kolkata in December 2016.

Role of ICT as an enabler for Learners with Special Needs in collaboration with Noble Mission ofSouth Kolkata, Mukundapur, Kolkata on 21st April 2017.

Apart from the above a website is in the completion stage where all the Multimedia Resources on OER being developed will be hosted.

Project 4

Talk to Ten Thousand Teachers Program at IIT Kharagpur

Objectives

- To share our teaching-learning experiences with teachers of Engineering Institutes across India
- Conduct technical teachers' training programs in core engineering areas through synchronous online mode
- The target is to reach out to 10,000 engineering college teachers in each program (main workshop through Internet connection)
- Each program consists of two phases: Coordinators' and Main STTPs
- To encourage teachers in improving their teaching and research abilities
- To promote greater participation of engineering college teachers in the recent developments in their respective fields
- To release all video recordings of the conducted program lectures and resources as open source

Achievements

- In January 2013 IIT Kharagpur partnered IIT Bombay to start the T10KT Project here. The first Coordinators' Workshop was conducted on Analog Electronics with 221 participants. The Main Workshop was conducted in June 2013 where a record 7427

Engineering College teachers participated online from all over India.

- From then onwards IIT Kharagpur has so far conducted 15 workshops (8 Coordinators and 7 Main workshops) in the disciplines of Computer Science &Engg., Electronics & Communication Engg., Mechanical Engg., ElectricalEngg. and Civil Engg.

- The 16th Workshop (8th Main workshop) on Electric Power Systems is scheduled to start from 10th July 2017.
- Approximately 50,000 teachers from various Engineering Institutes all over India have attended these courses conducted by IIT Kharagpur Centre.

- The overall female teacher participation is approximately 40%, which is much more than what we get in conventional short courses held at IITs.
- The maximum number of participants (about 45%) is from the age group of 25 to 30 years and about 25% from the age group of 30-35 years, which is encouraging.

- Teachers from Jammu & Kashmir to far North Eastern states like Manipur and Nagaland also participated remotely through synchronous online mode.

Project 5

Moodle Facility at IIT Kharagpur

Moodle is a learning platform designed to provide educators and learners with a single robust, secure and integrated system to create personalised learning environments. At IIT Kharagpur Moodle facilty is provided to the faculty members and students for enhanced teaching and learning experience.

Facilities

- Uploading of course materials

- Support for class assignments and evaluation

- Making and uploading of Video clips for better understanding of theory topics and laboratory experiments
- Support for on-line Class test, Quiz and their evaluations

Achievements

- In the last two years Moodle support was given to the 1st year courses like Physics, Chemistry, Mathematics, Electrical, Mechanical, Computer Science & Engineering and Humanities

- Support was given for online assignments for each of these courses where there are approximately 1400 students.
- 15 Laboratory Experiments of approximately 20-30 minutes each has been recorded and uploaded for courses of Chemistry, Physics, Electrical Engineering, etc.

- Online Quiz was conducted for students of departments like Mathematics, Electronics & Communication Engineering, Computer Science & Engineering, Mechanical Engineering, Civil Engineering, Mining Engineering, etc.

- Evaluation done for the online class tests/quizzes for large classes of 1400 students.

Project 6

Pedagogy

The NMEICT project on developing suitable pedagogical methods for various classes,intellectual calibers and research in e-learning, commonly known as the "Pedagogy Project", is not another exercise on content development. It is a project that aims to reconstruct the structure of teaching - learning in engineering education, based on pedagogically established learning theories and practices.

In this project, educational content needs to be restructured according to specific and measurable "Learning Objectives", which are to be linked to corresponding learning outcomes through targeted problems.

The structure of a sample course would be as follows:

This structure has been used to develop outcome-based curricula for 150 (one semester long) UG courses in 6 major engineering disciplines as model courses.

Unlike most syllabi, which are sketchy and vague, these curriculum documents are typically 250-300 pages long, defining Mission and Vision Statements, Programme Educational Objectives, Course and Module Overviews, Course, Module and Unit level Instructional Objectives/Outcome, related problem / assignment sets with solutions, suggested Learning Strategies and all relevant references – audio, video, animation, graphics, virtual laboratories, websites, text books, journals and finally a two page summary of each lesson.

It is now widely recognized that the graduates of twenty first century will need to demonstrate mastery over not only domain knowledge but also over knowledge, skills and attitudes needed for the 21st century. India, now being a permanent signatory of the Washington Accord, the National Board of Accreditation (NBA) has already published the Outcome-based Framework for

Engineering Education. Over 700 faculty members drawn from a large number of the best institutions in India are participating, with IIT Kharagpur as the Anchor Institution.

Institutes actively participating in the project are - IIT Delhi, BITS Pillani, IIT Roorkee, IIT Guwahati, NIT Durgapur, NIT Rourkela, BIT Mesra, SVNIT Surat, Sastra University, NIT Trichy, NIT Warangal, IIT Hyderabad, Amrita University.

Since the courses thus developed are open access, the project promotes self-learning, which is a skill direly required in the 21st century. It also allows continuous upgradation and modification of courses.

A Software tool has also been developed to allow easy creation of the course structure andallow participating faculty to upload all necessary details. This collaborative web based tool (e-Shikhsan) is based on pedagogy framework for developing, monitoring, sharing andadministering Outcome-based Learning. Present version of the tools allows individuals, group(s) or any institution- to develop outcome-based curricula in almost any subject(s) and make the curricula available to anyone.

Outcome of the project to date:

1. Development of 150 UG level Engineering Courses covering 6 Engineering Disciplines:

21CE; EE; ME; ECE; CSE; Chem. E and First Year Courses using the Outcome-based Curricula.

2. Open Source Web-based Pedagogy Framework tool for designing, reviewing, monitoring and publishing Outcome-based Curricula

3. All Universities / Institutions are able to use the above developed web-tool to develop their own Outcome based curricula / adapt / adopt the curricula already being developed nationally.

4. Training more than 6000 Engineering Faculty members of different institutions across the country on - Instructional System Design, Pedagogy and Outcome based Curriculum Design.

Project 7

The Beauty of Fluids (Science in Visual Form)

- ❏ 146 videos on various aspects of fluid dynamics, recorded during the period 2013-2017. www.youtube.com/user/solvense/videos
- ❏ Extensive involvement of undergraduate, postgraduate and PhD students in carrying out the above experiments.

- ❏ Videos used during classroom demonstrations and lectures in undergraduate and graduate courses.
- ❏ Videos used in a Lecture series on Fluid Instabilities at the Centre for Theoretical Studies (IITKGP) and IISER (Pune), by invitation.

- ❏ Ongoing contribution have been published in peer-reviewed series of articles in the journal Resonance (Springer)

Project 8

National Programme of Technology Enhanced Learning (NPTEL)



The National Programme of Technology Enhanced Learning (NPTEL), a MHRD funded project conceived to create video and web course contents through seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science Bangalore (IISc). Since 2003, more than 900 curriculum based video and web based courses covering the disciplines of engineering, science, humanities and management.

IIT Kharagpur has played a key role in developing e-learning resources under NPTEL as a partnering institution and has developed 48 web courses and 127 video courses (around 5000 hrs. of video contents) on diverse core and elective subjects.

These courses are available for downloads from nptel.ac.in as well as through YouTube.

From 2014, online certification courses are being offered under this programme as NPTEL certification courses. These courses in the MOOC format covering the 4 quadrant approach provide courses on core/elective subjects which imbibe

problem solving capability to the learners. Also a number of courses on communication and Soft skill development as well as job oriented courses are offered.

Since January 2016, IIT Kharagpur has offered:

- 67 courses out of the total 355 online courses offered under this programme.
- During the current semester (July-Oct 2017) 45 online courses will be offered.
- The courses on Programming in C++, Embedded Systems Design, Machine Learning, Speaking Effectively offered in the past were very popular amongst the audience.
- The course on Outcome based Pedagogic Principles for Effective Teaching was well taken by the Faculty members of engineering colleges.

Project 9

Swayam and SwayamPrabha

The Ministry of Human Resource Development has launched 32 educational TV channels for telecasting high quality educational programmes on 24x7 basis for the benefit of students from the level of secondary school education to higher education. This is intended to raise the issue of quality access to knowledge. These channels are available as the free channels from Doordarshan and Dish TV. The contents of these channels have been prepared by the faculty members from IITs and other reputed experts.

The National Programming on Technology Enhanced Learning (NPTEL) which is an initiative of the seven Indian Institutes of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and Indian Institute of Science Bangalore (IISc) for creating video and web course contents in engineering and science is the coordinator of UG and PG level of engineering education of SWAYAM and SWAYAM Prabha.

Among the 8 DTH channels of NPTEL, IIT Kharagpur is the National Coordinator of the 2 channels of DTH SWAYAM Prabha namely:

Channel 11: Chemical Engineering, Chemistry and related subjects

Channel 13: Computer Science and Engineering

The channels provide 4 hours of new contents every day suitable for different levels of engineering. To facilitate the interested viewers to take benefit of the programme, the contents are repeated six times a day, so that the viewer can learn the subject at a time of his/her convenience. The same set of courses with sequentially advanced lecture numbers are transmitted on alternate days, thrice in a week during Monday to Saturday. So during a week, 24 hours of new contents from 6 courses are transmitted. On Sunday, all lectures transmitted during the week are retransmitted.

The current transmission schedule of the channels is available at

http://www.swayamprabha.gov.in/index.php/program/current/11

http://www.swayamprabha.gov.in/index.php/program/current/13

After the transmission ends, the lecture contents will be archived and will be available for download from the archived lecture list.

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

The IITs/IISc and few other CFTI are offering free online courses as NPTEL Online Certification (NOC) Courses since 2014. So far 355 courses have been offered under this programme with 1.5 million enrollments and 1 Lakh+ examination registrations. These free courses are offered in the Massive Open Online Courses (MOOC) model with the provision of optional certification against successfully completing the examination against payment of a little fee.

During July-October 2017, 160 new courses from the disciplines of engineering, basic sciences, humanities and management are being offered. IIT Kharagpur which started offering online courses from January 2016, has so far offered 67 courses and will be offering 45 courses during the next semester for which enrollment is currently open.

All the course of NPTEL are also SWAYAM Courses and can be taken by Universities and Autonomous Institutions for credit transfer since the AICTE and UGC have already issued the Credit Framework for online learning courses through SWAYAM Regulation 2016 advising the Universities to identify courses where credits can be transferred on to the academic record ofthe students for courses done on SWAYAM.

The offered courses cover both the curriculum based and job oriented ones and is supported by the industry body NASSCOM and Google.

More than 950 colleges (both engineering and general education) have partnered with IITs as NPTEL local chapter to make best use of this educational initiative from IITs/IISc. The examinations are conducted across 100 cities in the country through the examination partner in the same way IITs conduct the GATE/JAM examination.

Project 10

Virtual Labs

The Virtual labs project under the Ministry of Human Resource Development is primarily aimed at providing near-hands-on experience to students in various laboratory topics in sciences and engineering using information and communication technology. With internet being all pervasive and accessible as data communication channel for users anywhere in the country using computers, tablets and even mobile phones, the technology has been leveraged and updated to support a variety of labs in engineering and science curriculum being used in several colleges and universities in India. In the initial stages around 140 labs were developed by 12 institutes in the country of which 28 labs were from IIT Kharagpur. As per a nationally coordinated strategy it was decided to have central platform integration and easily deployable mechanism of delivering the labs to any university student in the country. An open source development, deployment and management system was put in place by the Virtual Labs consortium. These include simulation yype as well as real time lab experiments.

IIT Kharagpur adopted the open source development strategy and has also migrated most of the labs developed by various faculties from 9 departments and schools in 7 disciplines. Architecture was put in place where in the deployment cloud and delivery is developed and integrated as per the standards laid out by the central team. The architecture could be effectively used in labs of Electronics – Analog, Digital systems, signal processing and communications; Electrical Circuits and systems, embedded systems; Mechanisms, Robotics, computer integrated manufacturing, Mechanical systems, signals, diagnostics, fluid mechanics; Civil, Chemical and biological sciences.

The architecture provides very user friendly and interactive control using concepts of 3D modelling and visualisation as well as manipulation and control. Most recent tools in WebGL, HTML5, Javascript and related emerging responsive web technologies have been used to redevelop the labs in the current phase of the project. These labs use a simulator backend which can be in an open source format or provide a mechanism to access and integrate some of the major software development environments that are commercially available for use in certain domain specific applications. The architecture in shown in the figure below and several topics have been redeveloped using this

theme which is in-line with the national framework. The framework has also been extended to Real Time Labs and are delivered using servers on the IIT Kharagpur LAN.

Project 11

Society for Natural Language Technology Research

Society for Natural Language Technology Research has been seeded by the Government of West Bengal (Department of Information Technology and Electronics) with initial funding and support.

Operationally, the society aims to carry out its activities in a multipolar manner, involving other academic and research institutes as well as industries. IIT Kharagpur has been a major collaborator in this regard. SNLTR has adopted UNICODE 5.0 and upwards as the standard for data representation and encoding for Bangla. Accordingly, in collaboration with IIT Kharagpur it has developed

- A Bilingual Linux System
- Unicode compliant keyboards for Bengali, Hindi, Odia, Manipuri (Meetei) and Santhali (Olchiki) scripts.

Moreover, SNLTR is developing digital resources for the prominent Bangla Literary works which are out of copyright.

Important achievements:

RabindraRachanabali

As a maiden endeavour towards fulfilling this goal, SNLTR has digitised the entire literary works of Rabindranath Tagore, and has put the same into the official website of the Society (http://www.rabindra-rachanabali.nltr.org). This website contains all the original Bangla

writings of Rabindrnath-- poems, stories, novels, dramas, essays, songs along with their notations. In addition to these the site also records other information related to Tagore and his works like Tagore's biographical information, information regarding his literary works, letters, criticisms, etc.

The key features of the online RabindraRachanabali are summarisedbelow :

- All the works of Tagore are categorised into different genre, viz. poems, stories, novels, dramas, essays, songs, etc. This makes the task of a viewer much easy in finding out the desired work.
- It has a robust search engine "Anusandhan" which helps one to find out particular words or phrases.

- The feature "Anveshan" enables its viewer to get the meta-information of a work -- the date of composition, the main characters, the category of the work, etc.
- An alphabetical list of all his works is also available in the site.

- All notations of the songs (Swaralipi) are available online through a link in the text of the song.

- Any or all parts of this online version can be printed, emailed as per the requirement of the target audience.This online publication stands as a fitting tribute to the celebration of Tagore's 150th Birth Centenary year and was released on the 2nd of February 2012) .

2) Online Sarat-Rachanabali

3) Bankim-Rachanabali

4) Sree Ramakrishna Kathamrita

5) SukantoRachanaSamagro

6) Vivekananda Rachanabali

7) NajrulRachanaSamagro

Moreover, SNLTR has embarked upon Preservation of Satyajit Ray's Work. As the first endeavour, SNLTR has digitisedSatyajit Ray's note book (*KherorKhata*) for *Goopy GyneBaghaByne*movie with appropriate annotations to support search operations.

Project 12

Language Technologies

Researchers in CSE Department, IIT Kharagpur have been engaged in work on Language Technologies including natural language and speech processing. Tools and resources have been developed for working with Indian languages.

Natural Language Processing

- Development of Tools for Bengali language text processing ❑Morphological analyzers and generators for Bengali

  ❑Part of Speech Taggers and Names Entity Recognizers for Bengali ❑Parsers for Bengali

- Development of Resources for Bengali language text processing

  ❑Annotated resources for Part of Speech tagging, Named entity recognition, dependency treebanks

- Development of Tools and Resources for Sanskrit

  ❑ A dataset creating a gold standard dataset for research in Sanskrit text consisting of 115,000 Sanskrit sentence

  ❑ A system that given a Sanskrit sentence and all its phonetically valid segmentations, finds the most probable segmentation of the words in the sentence
  ❑ Sanskrit compound classification and analysis

Speech Processing

- Speech Corpora

  ❑Bengali speech corpus (read speech) of 21.64 hours duration consisting of 7833 unique sentences, spoken by 34 speakers and a corpus of 20 hrs duration, 20,000 sentences, spoken by one male and one female speakers meant for developing TTS systems

  ❑Indian language speech database consists of speech samples from 27 Indian languages and an approximate duration of 30 hrs.

- ❑ Emotional speech databases in Hindi and Telugu, each having the duration of 10 hrs spoken by 5 male and 5 female speakers.

- ❑ Story speech corpora for 4 Indian Languages: Hindi, Bengali, Malayalam and Telugu, each of about 3 hrs duration

- Speech interfaces in Indian languages

  - ❑ Bi-lingual (Bengali and English) screen reader for visually impaired people.

  - ❑ Bengali speech synthesizers

  - ❑ Story speech synthesizers for Hindi

  - ❑ Speech interface to farmers of Bihar state to know about the agricultural commodity prices at their local markets through their mobile phones.

Project 13

Digital Learning Research at Centre for Educational Technology

The Centre for Educational Technology at IIT Kharagpur has been a hub of e-content development for several years. The contents developed in form of video lectures or MOOCs have been used very effectively by the leaner population at large. It has been envisaged that potential of the developed contents may be augmented and evaluated with aid of Artificial Intelligence and Cognitive Science technologies. The Centre for Educational Technology has taken up the following research activities to automate different aspects of content development and organization.

Artificial Intelligence in Education

- ❑ Automatic Question Generation: The centre has taken up research projects that aim at augmenting learning materials through text analysis. This project aims at generating assessment items at appropriate places in a video lecture. The developed prototype system segments the video lectures into topical unit through video transcript analysis. The system also aims at connecting off-topic concepts in a video lecture to other video lecture segments that provide basic understanding on the targeted concept.

- ❏ Automatic Answer Grading: Robot grading has been an important research problem in the era of MOOCs at it may solve the issue of assessing free text answers provided by a large population of students. Apart from provide holistic grading, the research also focuses on generating formative feedback by identifying the gaps in student provided answers.

- ❏ Pedagogic Analysis of Content: Pedagogic annotation of the learning materials are of prime importance for situating them in proper learning contexts. For example, recall level learning materials may be introduced in early stage of learning a concept while synthesis or application level should be stressed upon in the advanced stage of learning. This project aims at automatically annotating the learning materials with appropriate pedagogic levels.

- ❏ Second Language Acquisition: Under the Pandit Madan Mohan Malavya Mission for Teacher and Training scheme, the centre has taken up research activities on second language (English) acquisition. Following activities have been taken up under this project:

  - ★ Development of Learner Error Corpora: Learner error corpora is an error annotated corpora consisting of second language text (English) written by non-native speakers. Learner error corpora help in identifying language pair specific interference patterns that aid in devising pedagogic intervention. This is one of the rare efforts in developing learner error corpora in any Indian language.
  - ★ Automatic Learner Error Detection and Correction: The generated learner error corpora will be used to develop error detection and correction model through natural language processing techniques.

  - ★ Spoken Language: Computer Assisted Spoken Language Learning tools with correct language pedagogy for faster accusation of second language speaking.

Cognitive Science and Education

- ❏ Bilingualism and Cognition: Research activities have been initiated to measure cognitive loads different linguistic tasks like translation, word choice, preposition selection in bilingual setting. The centre has recently setup a cognitive systems lab hosting devices like eye gaze tracker and EEG to aid in the proposed activity.

- ❏ Cognitive Load of e-content: Contents are being developed following different pedagogic principles. Cognitive load for a given content depend on several factors including intrinsic load, extraneous load, user

background etc. EEG and eye tracking based cognitive load analysis is being investigated for e-contents of different modalities and pedagogic principles.

Project 14

Knowledge Dissemination Programme

The Institute launched a unique first of its kind "Knowledge Dissemination Programme" for faculty and students of engineering colleges, working professionals from R & D organisations and industry in April 2015. This programme is unique in the Indian context as it envisages dissemination of knowledge on niche topics through short modular courses preferably of 10 hours duration. The modular courses are conducted live through video conferencing at IIT Kharagpur campuses in Kolkata and Bhubaneswar using the NKN enabled classrooms from IIT Kharagpur. The courses under this Dissemination Programme course are targeted towards students and faculty members of TEQIP-II Institutions, IIT Kharagpur students, entrepreneurs, working professionals from R & D organisations and industry all over the country. For a wider outreach and to enable the participants to attend the programme after their office/class hours, the Live/Video modular courses are conducted during evening/weekends. Working professionals get an opportunity to seek knowledge and experience from reputed IIT Kharagpur faculty through intensive study of subjects and personal interactions.

Participants from Industry, Research Organizations, Faculty and Students of TEQIP-II Institutions and Entrepreneurs from all over the country can register for the 13 courses offered during the year. These subjects are designed around current and multidisciplinary themes of Science, Engineering, and Management. The duration for each subject is of 10 hours. IIT Kharagpur issues a course completion certificate to all participants who attend classes regularly on recommendation from the Coordinator.

Some of the courses included in KDP are Embedded System Design, Microfuidics and Nanofluidics,Data Mining, Hydrologic Design in a Changing Climate, Service Operations Management, Selected Topics of Advanced Signal Processing, Gradient Based Numerical Optimization Algorithms, Wireless Sensor Network and Internet of Things, Thermoelectricity: The art of waste heat recovery, Polymer Membranes: Future Materials for Gas Separation and Fuel Cell application (PEM), Hydraulic Transients in Water Conveyance Systems, Creativity & Innovation at Work and Effective Speaking and Making Presentations.

Students can apply for one or multiple overlapping courses by sending a filled up registration form to the respective Coordinator of the course along with a

bank draft payable to 'CEP-STC, IIT Kharagpur' for the amount mentioned in the leaflet of the particular course. The course coordinators will go through your application and confirm your selection as a participant before the starting date of the courses. All details for the programme are available on the website www.cep.iitkgp.ac.in

Project 15

Continuing Education Programme

The Continuing Education Programme is a significant academic activity of the Institute. Over the years, it has diversified in terms of variety of programmes, coverage of disciplines, mode of teaching, duration, and the range of industries and academia served. The activities includes providing continuing education and training to professionals from industries, R&D organisations and academia, providing opportunities to teachers and students of Engineering Colleges to update their knowledge through short term courses and for pursuing M.Tech. and Ph.D. degrees under the Quality Improvement Programme (QIP) of MHRD. Additionally one UG and one PG student from Canada have recently been trained under the MITACs programme of TEQIP-II, MHRD.

During 2016-2017 the Continuing Education Cell organised 20 (twenty) QIP short term courses with 315 participants, 33 (thirty three) TEQIP-II sponsored courses with 847 participants; while the number of self-sponsored short term courses conducted was 85 with as many as 2616 participants. In addition to the above, 21 conferences/workshops were conducted with over 500 participants during this period. The three year executive MBA programme organised by the cell had 34 students in its Kolkata centre. During this year 2 teachers under QIP completed their M.Tech programme and 05 QIP scholars were awarded Ph.D. degrees.

Under the scheme for empowerment of students and teachers through synchronous and asynchronous instruction (EIT) under NMEICT, MHRD, more than 390 faculty coordinators and 12112 engineering college teachers were trained.

Indian Institute of Technology Kharagpur initiated Global Initiative for Academic Networks (GIAN) which is a flagship programme of the Government of India in the winter of 2015. These courses of 2 weeks or 10 working days duration were designed around current and multidisciplinary themes in Science, Engineering, Management and Law with a judicious blend of lectures and tutorials per day. A total of 498 national and international participants

from theacademia and industry participated in the 17 (seventeen) summer courses whereas a total of 519 participants attended the 16 (sixteen) winter courses during 2016-2017. The GIAN courses provide an excellent platform to our students, faculty and industry professionals to seek knowledge and experience from international faculty. It also provides them an opportunity to interact and learn subjects in niche areas through a collaborative learning process. High quality course material, both through print and video are developed under the GIAN programme so as to be used by a larger body of students and teachers.

The Continuing Education Cell introduced On-Line video-enabled micro-credit courses of 10-12 hours duration under the Knowledge Dissemination Programme (KDP) for the first time. A total of 10 (ten) courses were offered in 2015-16. These modular courses were conducted from IIT Khargpur and streamed live through video conferencing to our Kolkata and Bhubaneswar campuses using the NKN enabled classrooms during evenings/weekends. A total of 354 participants, which included students and faculty members from TEQIP-II institutions, IIT Kharagpur students and industry professionals, attended the KDP programme.

One credit courses on micro specializations are being conducted successfully for the last one year. Till now 13 (thirteen) micro credit courses have been conducted.

Facilities of the Cell include Video-Conferencing Studios at Kolkata (3), Bhubaneswar (3) and Kharagpur (4).

Project 16

Enterprise Resource Planning (ERP) System

IIT Kharagpur has started implementing its' own web based ERP system which helps in automating many processes and digitizing institute records. It is developed in-house using open source technologies like Java, Postgresql, Spring Framework etc. The following are the core components/modules of the system implemented so far.

1) ERP Framework: This is the core of the system which is comprised of multiplecomponents. The Single-Sign-On and associated components facilitate the authentication, authorization and delegation mechanism. The workflow management primarily automates the approval processes. The communication component of ERP framework helps in sending email to customized group of stakeholders. The multi- tenant payment gateway processes various types of financial transaction.

2) Academic: This module processes all academic related transactions. It primarily handlesthe online application, admission, registration, class and exam timetable scheduling, result processing, graduation processing, online thesis examination, degree verification etc.

3) Accounts and Asset Management: The accounts module records all financialtransactions and process them. The transactions are initiated at source, and processed online by the concerned authority. This module manages the salary, tax, payables, receivables, ledger, student fees etc. and finally generate several accounting reports. The asset management system helps in managing all assets and classifying them as per the standard.

4) Human Resource Management: This module maintains and processes the record of allinstitute employees. It helps the institute in managing the employee profile, leave, dependent information etc. It also facilitates the institute in processing both teaching and non-teaching recruitment online.

5) Research and Consultancy Project Management: This module maintain records of all research and consultancy projects that are managed by the institute. It helps in managing the fund by sponsoring agencies and expenditure in the projects. In addition, it manages the record of manpower involved in various research and consultancy projects. This module also facilitates online recruitment for project personnel.

6) Purchase: This module process the institute purchase related transactions. It is still in the process of implementation. So far, it manages the fund booking and generates the purchase order online.

7) Hostel Management: This ERP module helps the institute in managing all hostels in the campus. It maintains the record of room allocation to students, interns etc.

IIT Hyderabad

Although Data Science has been a popular research areas in academia for the last two decades, it has now become one of the highest demand areas in all industries. Every industry is now exploring ways to make the best of their BIG DATA. However, the challenge is that most of their senior employees do not have background in Data Science. Organizations have a tough time dealing with scarcity of Data Scientists as the leading employees, who have expertise in the industry domain, do not have knowledge of Data Science. They can recruit new professionals with Data Science background, which is also difficult given the huge demand and low supply for Data Scientists in India. Moreover, the new recruits often do not have sufficient understanding of the industry requirement.

With these factors in mind, the department of Computer Science and Engineering at IIT Hyderabad chalked out an exclusive MTech program in Data Science exclusively for industry professionals since August 2015. With a neat and laid out structure, the executive MTech program is targeted at working professionals. The candidates need to complete 24 credits of courses over a period of 2 to 4 years. They need to visit the campus only 4-5 times for the whole programme. For the ease of candidates, lectures are delivered online through live video sessions during weekends, ensuring that the candidates get a classroom like feel with simple remote attendance. Almost everything in this programme is done remotely, admissions, lectures, discussions, and course assignment evaluations. Although most online MOOCs give simple assignments so that it can be quickly (or automated) graded for large number of students who enroll for such courses, in this programme, by restricting the number of admitted candidates to only 30-35 candidates, we maintain the same quality of evaluation as our regular students. We have dedicated teaching assistants for these courses who use remote access tools for assignment evaluation. There is a dedicated video conferencing facility, built on NKN infrastructure, in the Institute for this purpose. Google Classroom is used for class discussions and online assignments.

Following are some remarks from our graduating (2015 batch) EMDS students:
“This course has equipped us to get prepared for 2.0 career. With a decade plus industry experience it provides a balance of both industry exposure and use cases for our learning's. Also many of us are at senior levels of career to influence decisions for solving problems in data science space. Probably another add-on something like EMDS 2.0 to upgrade our skills after few years for EMDS students, and keep connected with academic and have a continuous learning mode would be a win-win strategy for both students and faculty.”

"Technology has made it easier for students to learn with new ways(MOOCs etc), but nothing can come close to the experience of being taught by an

inspirational coach like all the faculty members of IIT-H. You all (profs) have given us knowledge and skills for life. Importantly, thanks for not making us learn the way you wanted to teach, but teaching us the way we wanted to learn.Thank you so much Sir. "

“During a chat with *** Sir on automation and how to succeed in this current age and technology, he was mentioning about the need to be on top of the knowledge ladder. Thank you so much for the EMDS program that helped us and many more to come to take a step up the knowledge ladder.”

“All the subjects covered have provided us a necessary skills to handle (Image, Text, Machine Learning, Deep Learning, Data Mining). This helps us to accelerate our learning and try more experiments to recommend more use cases at work. *Academics is way ahead of Industry*. Today's deep learning lecture on #AutoML and Demos shows it's going to be AI / ML / DL in coming years. Thank you very much sir for giving us strong fundamentals to apply and solve our business problems. We are thankful for accommodating our requests, covering more additional topics on requested areas. We would like to continue this learning going forward. We will always look forward to you for our learning in future EMDS 2.0.”

Link to EMDS Program: http://cse.iith.ac.in/?q=emds

INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OFMINES), DHANBAD
Dhanbad - 826004

Date: 30.06.2017

Minutes of the meeting to finalize the brief write up on the work done by the Institute in creating digital content and innovation in improving the teaching process.

Members Present:

1.	Prof. G Udayabhanu, Dean (Academics)	:	Chairman
2.	Prof. Somnath Pan, Assoc. Dean (Academics)	:	Member
3.	Dr. Dheeraj Kumar, Assoc. Professor, Deptt. of Mining Engg.	:	Member
4.	Dr. Partha De, Librarian	:	Member
5.	Dr. Pramod Mathur, Joint Registrar (Exam & Academics)	:	Member

The Committee has prepared a brief write up on the digital initiatives undertaken by the Institute for strengthening the teaching and learning process. The same is enclosed.

30.6.17
(G Udayabhanu)

30/6/17
(Somnath Pan)

30/6/17
(Dheeraj Kumar)

30/6/17
(Partha De)

30/6/17
(Pramod Mathur)

Indian Institute of Technology (Indian School of Mines), Dhanbad

A Brief write-up on the work done by IIT (ISM) in creating digital contents and innovations in improving teaching learning process

1. Oil and Gas Reservoir Characterization Simulation

Petroleum Engineering is a unique stream where engineering is applied to thesubsurface formation which is neither accessiblenor visible to the engineers. Hence, ensuring reliability of the applied engineering and related predictions is challenging. Simulation softwares integrate geological, geophysical, reservoir and production data to maximize the reliability of predictions.Simulation softwares are widely used in upstream oil and gas industries to visualize the reservoir and predict recoverable amount of hydrocarbon from it. These days, decision on capital investments in exploration and production projects is primarily based on techno-economic analysis using the simulation softwares. Hence, providing knowledge and skills relevant to the application of these softwares to petroleum engineers is necessary to ensure their preparedness for the oil and gas jobs and academic research.



Figure 1: Students getting hands-on training at Reservoir Characterization Center

To achieve this objective, IIT(ISM) Dhanbad signed an MOU with Schlumberger Asia Services Limited in 2016 for establishing Reservoir Characterization Centre (RCC) in the Department of Petroleum Engineering of IIT (ISM). As a part of the implementation of ICT based teaching and research in Petroleum industry, Advanced Reservoir Characterization softwares worth **USD 13.14 million were sponsored by Schlumberger**and introduced in the course of Petroleum Engineering of IIT (ISM) Dhanbad.

2. Virtual Reality Mine Simulator (VRMS) for ICT based Training in Mining Sector

An immersive Virtual Reality Mine Simulator (VRMS) system for improving safety and productivity in Indian coal mines is being developed and implemented at IIT (ISM) Dhanbad in collaboration with Simtars, Department of Natural Resources, Queensland Govt., Australia.This will be a unique training facility in Mineral sector in India as a part of Digital Initiative. VRMS will be primarily used for imparting immersive visual hands-on training to Mining and earth Science students as a part of capacity building in mineral sector.VRMS will also be used for imparting necessary training to executives and operational people for improving safety and productivity in mining operations in Indian coal mines.

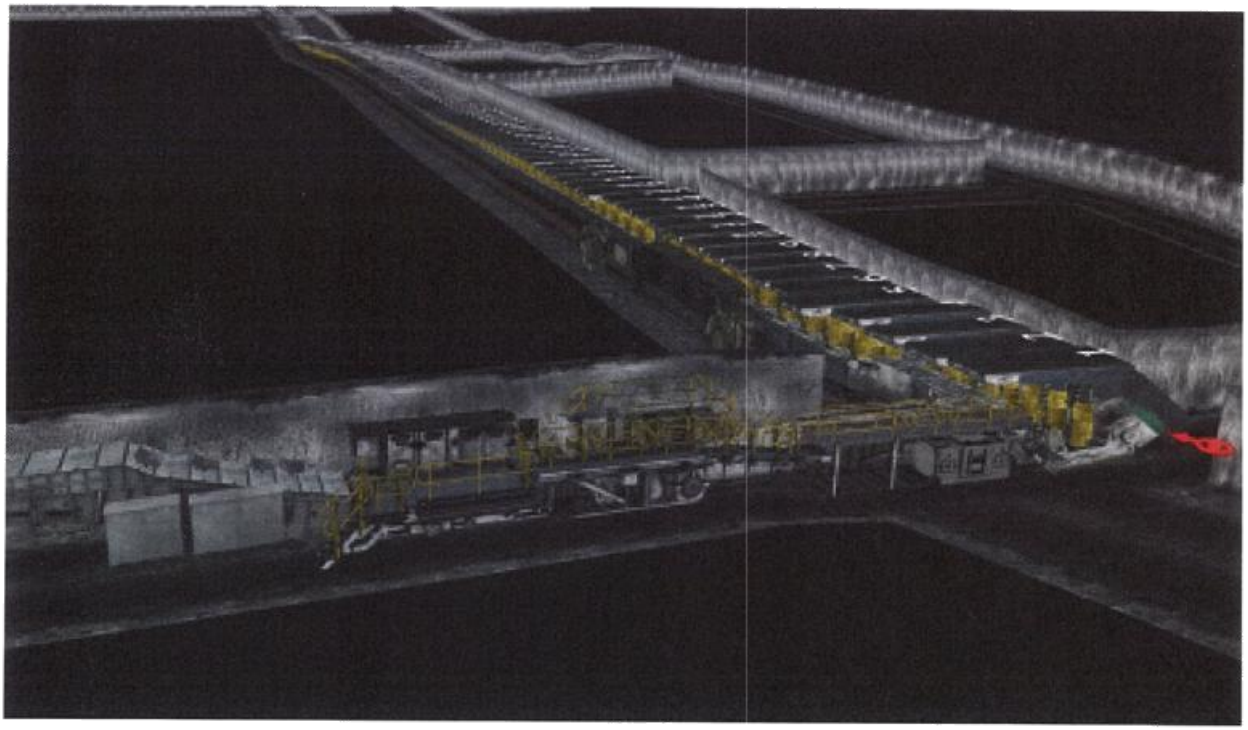


Figure 2: Development of immersive Virtual Reality Mine Simulator (VRMS) system for hand-on-training in mineral sector

Such training systems can directly contribute to skill development in sectors/areas involving hazardous work environment and thus help reduce the fatality rates as well as augmenting the production.

3. Satellite based Outreach Courses

IIT (ISM) Dhanbad has successfully participated and coordinated the various evening mode Satellite based Indian Institute of Remote Sensing (IIRS), ISRO, Govt. of India Outreach Courses of two to three months durations for the students of IIT (ISM) on contemporary topics, namely, Remote Sensing, Geographical Information System and Global Navigation Satellite System; Geospatial Technologies for Urban Planning; and Remote Sensing and GIS Applications in Carbon Forestry

4. Development of Pedagogical Methods in Mining Engineering

IIT (ISM) Dhanbad assisted IIT Kharagpur in developing suitable pedagogical methods for Mining Engineering education for various classes, intellectual calibers and research in e-Learning, National Mission Project on Education through ICT, a project of MHRD, Govt. of India.

5. Online Spectral Library Archival and Analysis System

Hyperspectral remote sensing is a developing, multidisciplinary field diverse that expand on the standard of material spectroscopy, radiative transfer, imaging spectrometry and hyperspectral data process. In order to use the full capability of hyperspectral data, Spectral library is an essential component, gathered as collection of spectral signature in different research studies.This initiative concentrates on the development of a web-enabled spectral library architecture for online archiving, visualization and analysis of hyperspectral data. The main objective of this digital initiative is to build a web-accessible spectral data archival, visualization and analysis environment using free and open source software (FOSS).

6. Web Based Satellite Image Processing and Enhancement

The aim of this initiative is to build web based virtual laboratory for geospatial data processing analysis. The online image processing capabilities in web applications are very limited due to various technical limitations such as application development environment, network bandwidth, client and server hardware etc. Online image processing system have immense scope for training and capacity building in distance learning mode for learners of remote sensing and geospatial technologies. The web based image processing system provides an opportunity to witness

classroom-learned theoretical concepts at work; operate instruments used in the experimental set-up; measure different quantities and thereafter analyze the experimental data; and work collaboratively.

7. Big Data Analytics: Geo-Spatial Data Processing Using Hadoop Framework

Big data is considered to be the world's most diverging and immensely used source of data processing and analyzing field just because of the fact that in today's world data is generating itself without human interruption and is not in a structured form.The efforthas been made to develop an Application Programming Interface (API) for geospatial data processing and Operating System (OS) for geospatial big data analytics based on Hadoop Framework. The developed framework can be used for processing large amount of geospatial data for its various applications.

8. Web Based Spatial Decision Analysis for Real Time Monitoring of Critical Biodiversity Hotspots Using Big Data Analytics

The overall aim of this imitative is to develop spatial model that is based on Big Data Analytics for monitoring critical biodiversity hotspots at global, regional and local level. A generic model with a case study for Biodiversity critical hotspots identification and monitoring has been developed. To accomplish the aim following objectives are postulated:

- Develop cluster computing based spatial data analysis, processing, modelling system for identification and monitoring of biodiversity hotspot at regional and local level.
- Develop Big Data repository for identification and monitoring of biodiversity hotspot at regional and local level
- Develop Web GIS based spatial Decision support system using open system architecture.

9. Establishment of Institutional Digital Repository (IDR)

As a core member institution and nodal centre of National Digital Library (NDL) Project of IIT Kharagpur under the aegis of NMEICT, MHRD, GOI, Indian Institute of Technology (ISM) Dhanbad also established an Institutional Digital Repository (IDR) where digitized contents in the form of Ph.D theses, dissertations and other digitized documents are archived and access provide through campus LAN. The Institutional Digital Repository was made operational using

d-Space Software by the Central Library of the Institute. Presently the content of the d-Space Server is uploaded and managed by the Central Library. Holdings of the Institutional Digital Repository at present are,

1. Ph. D theses : 346
2. Faculty Publications : 1567
3. Other Documents : 108

Apart from the above, the library is fully equipped with e-books, e-journals in all the disciplines with on-line access from class rooms and hostels.

IIT Roorkee

Since 2003 Indian Institute of Technology has been involved in dissemination of higher education material using digital means as summarized below:

(1) Digital course materials are produced for technical undergraduate and postgraduate courses under NPTEL funded by MHRD, Govt. of India.

Materials produced are:

1. Web based courses:35 Numbers
   (each course has 40 lectures of 1 hour duration each)

2. Video based courses: 26 Numbers
   (each video based course has 40 lectures of about 1 hour duration each)

3. Different MOOCs(Massive open online courses)
   4 week duration:16 Numbers
   8 week duration:20 Numbers
   12 week duration:6 Numbers

After the completion of a course, registered participants appear for an online proctored examination to get certificate of IIT Roorkee.

(2) Continuing Education Centre had successfully organized two real time online executive courses jointly with Talent Edge (Mumbai) through virtual mode for working professionals during September, 2015 to January 2016. More than 100 participants in each course were registered. The participants from different parts of the country as well as from other countries like Malaysia, Kuwait, Dubai, France & Germany participated in these programmes. No exam was conducted and the successful participation certificate were issued to the eligible candidates.

(3) In addition to it, Virtual Laboratories for Higher Education were also developed.VirtualLabs, IIT Roorkee is providing experimentation facility for five subjects. The different subjects for which experimentation facilities are provided are: electrical machines laboratory, surveying laboratory, biomedical instrumentation laboratory, digital image processing laboratory and digital signal processing laboratory. Under each laboratory about 10 to 12 experiments are facilitated. The undergraduate students of government and private engineering colleges can get registered for the above laboratories and can do these experiments from anywhere in India. Hardware related experiments can be done during 9 A.M. to 6.00 P.M. on all days, whereas simulation based experiments can be performed on all days, 24x7.

IIT Kanpur

In IIT Kanpur, in last decade many initiatives to introduce digital technology in higher education were taken up. Main initiatives were the following. The brief writeup about each initiative is seeked from each of the faculty who lead the initiative and reproduced below. The initiatives can be broadly classified into development of technology for improving the academic processes in higher education, and development and dissemination of content. These have been funded from various different sources and have evolved over time.

ERP mission

NMEICT initiated the EdRP mission in NMEICT. AMU Aligarh, AVV Kochi, DEI Agra, IGNOU Delhi, IIT Roorkee, JMI Delhi, NIT Hamirpur, SMVDU Jammu and IIT Kanpur (as coordinating institute) were given the responsibility for development. The objectives of the project was to build, deploy and manage open source web based software systems for Indian academic institutes. At that time, IIT Kanpur was developing a learning management system called Brihaspati. In order to leverage on this ongoing development, whole ERP system was planned to be built around it. With the help of other institutes, the other modules were identified and each partner institute developed one or more of these modules. The basic philosophy of release as early as possible was followed since beginning, so that the systems get tested by the actual users and their feedback can be used to enhance the systems. The users' participation in the design process in this manner ensures that the important features are developed first and resources are not wasted on features which will have much less use.

Each system was planned such that all academic institutes can create their own partitions and use it for their own purpose. For the userid of users, all other modules were designed to use email id as their logins, as email ids are unique for a user irrespective his organization. Brihaspati-2 was modified to use email id in this process. To ensure that all the systems use same userid and password, we have implemented openid based authentication system from Gmail and Yahoo. Also, authentication using a customized remote authentication mechanism from Brihaspati-3 server have been implemented. Single signon for all the services have thus been implemented. All the source code developed under this project is maintained as publicly visible subversion repository at http://brihsvn.iitk.ac.in/repos. The source code builds are also distributed world wide from http://sourceforge.net/projects/brihaspatiunder an opensource license. In the working draft, all the developers regularly add their documentation. All the changes done by various developers are merged with main working draft and are kept in a publicly accessible ERP mission area on http://brihaspati.nmeict.in/brihaspati/servlet/brihaspati.The working draft documentation keeps on evolving and currently consists of seven

volumes. Recently, the user documentation for Brihaspati3 in Hindi and new working draft on Brihaspati4 a p2p LMS framework has also been added.

Currently following modules are available: Brihaspati-3 –(http://brihaspati.nmeict.in/brihaspati/servlet/brihaspati- has 288 institute parititions, Local installations are not counted in this.), MHRD Multisite Grant Management System (MGMS) - superseded by BGAS lately, Data visualization system - taken care of by the analytics part of Brihaspati3 lately, Project management system, Online admission system, Course Management System (basically handles the registration of students in various courses every semester) - now being merged in SLCMS (student life cycle management system), Online examination system (is part of Brihaspati-3 and is used extensively in IIT Kanpur), Payroll management system, purchase and inventory management, library automation, and online election management. As per the requirements identified in various meetings, now Brihaspati general accounting system (BGAS) with funds based accrual accounting with double entry is also in release. The standard chart of accounts and budget control mechanisms have been developed and added to the system. Automated depreciation calculation of assets, access control to allow different users to make entries in different ledgers, each entry being verified by another user, balance sheet creation in MHRD format, and generation of all schedules, aggregation of reports (as of now only balance sheet, schedules is being worked upon) among multiple accounting units have already been done so far. Integration with BGAS of payroll, pico and fee management system has been achieved partially. The funds based accounting, closure of account and transfer to next financial year has also been done. Further user base has now grown to include ICHR Delhi, NBT Delhi, many Central Universities, NITIE Mumbai, University of Hyderabad, NIT Allahabad, NITTER Chandigarh etc..

SMVDU, AVV, NITH, IITR, AMU, JMI, DEI and IGNOU have withdrawn from the project. The modules of SMVDU which are related to financial accounting were pursued by the developers at IIT Kanpur. The code built so far will be kept in open source license under free public access. The project is now pursued by seeking funds from academic institutes and universities directly in lieu of building features and fixing their bugs on priority and releasing the code in opensource.

URLs related to these project are given below.
http://brihaspati.nmeict.in/brihaspati/servlet/brihaspati
Other Products (beta) available athttp://eduwiki.iitk.ac.in/
Questions/comments/feedback/discussion
Wiki of National ERP mission -
http://brihsvn.iitk.ac.in/WebApp/wiki Brihaspati LMS
http://sourceforge.net/projects/brihaspati http://brihaspati.sourceforge.net/
Code repository at http://brihsvn.iitk.ac.in/repos

Teaching and Learning Centre (TLC)
Set up under Pandit Madan Mohan Malviya National Mission for Teachers and Teaching

Scope
TLC at IIT Kanpur has been set up with the aim to offer MOOCs, Short Term Courses and Workshops for the teachers of the Engineering Colleges affiliated to State Technical Universities. The activities under the center were mainly around creating enablers tofulfill its mission and goals which are broadly classified as Technology Development, Collaborations, Infrastructure Development and Courseware Development.

Achievements
Technology Development

mooKIT (http://mookit.co), a lightweight MOOC management system, has been conceived, designed and developed at IIT Kanpur. It is specially targeted for scenarios one often encounters in developing countries – poor internet connectivity and lowinternet-maturity audience. It has been used in more than 16 courses so far in India and abroad and has been found to be very suitable for user groups like farmers, agricultural scientists, development workers and mainstream college students..

Unique Features of mooKIT

mooKIT has special features to address the connectivity challenges of a user in a developing country. The internet connection here is not robust and fluctuates all the time. To start with mooKIT has an indicator showing the bandwidth of the internet connection, quite like the bars we have on a cell phone. This gives a visual indication to the student if the connection is going bad, and (s)he can use other content delivery options that mooKIT provides. Like, stream the audio only and play it in sync with the slides - the experience is often as good as a streaming video. Or even get the system to call you on your phone and play the lecture audio.

A very unique feature is the integration with social networking platforms like Facebook and Twitter. All the discussions in the course automatically get posted on a FB group and go out as tweets, and they move in the opposite direction too. A student need not log into the course platform separately to follow and participate in the course.

A very powerful analytics interface is available to give insights on the course activities. Instructors can get sophisticated information related to the level of involvement of each student, and get predictive assessments related to these. Sentiment analysis can be performed on the forum posts to analyze the

satisfaction of the course participants. mooKIT is built entirely using state of art, open source technologies. The core engine runs on the MEAN stack, making it extremely scalable and can run on low end servers, supporting large number of simultaneous users. The student interface is very simple and intuitive, built with internet novices in mind.

mooKIT has also been adopted to run courses in the blended mode (Flipped classes) at IIT Kanpur.

mooKIT offline allows a course to be downloaded completely onto an SD Card and watch the lectures on a mobile device.

Infrastructure
A private cloud has been set up with the following configuration:

3 machine cluster each of 128 GB RAM, Dual Haswell E5-2630v3(8 Core, 2.6 GHz), 800GB SSD, 4TB HDD, 10Gbps internal connectivity. This should be able to host upto 80 virtual machines, which will be used for hosting all the online interaction platforms likemooKIT.A courseware preparation facility has been setup with recording equipments and content editing facilities.

Courseware Development
Courseware for 5 Undergraduate courses has been developed and tested with our students. “Learning Physics through simple experiments”: A Massive Open Online Course(MOOC) on Learning Physics through Simple Experiments was offered by Prof. H C Verma, Department of Physics, IIT Kanpur. It had more than 50,000 registered participants.

Two workshops were organised for faculty from various institutes on the following topics
●C Programming by Prof. AmeyKarkare, Department of Computer Science and Engineering
●Data Structures by Prof. R K Ghosh, Department of Computer Science and Engineering Collaborations

IIT Kanpur has interacted with IIT-BHU, UPTU and TEQIP and have conducted various workshops on online courses and their development

Project Title: Central Sector Scheme for MOOCs-Complaint e-content creation (NPTEL Phase IV)
Project Investigator:Prof. Satyaki Roy

Project Initiated on: 31 August,2016
Project objectives (50 words) The broad aim of the project CSS-MOOCs is to facilitate the competitiveness of Indian Industry in the global markets by improving the quality and reach of education. The operational objective of CSS-

MOOCs is to make high quality learning material available to students of different institutions across the country. The target group for this project consists of students and faculty members of institutions offering Undergraduate/Postgraduate education in India.

Progress report(100 words)Since 2014 IIT Kanpur has offered 109 MOOCs out of which 80 are new courses,16 are Re-purposed from the NPTEL phase II-III courses and 13 courses have been Re-run based on the needs of the engineering colleges. As part of the NPTEL Phase IV initiative we have developed the concept of NPTEL Local Chapters across the country in the different universities and engineering colleges. There are close to 700 local chapters today with identified expert faculty members of these institutions serving as local mentors for the students enrolled in NPTEL courses. In the last 3 months we have conducted 11 workshops in the institutes in Uttar Pradesh, Uttaranchal, Assam, Manipur, Tripura, Meghalaya and Arunachal Pradesh. These workshops aim at generating awareness about the NPTEL platforms, explaining difficult concepts from the course content by the subject matter experts and inviting more and more institutions with a dearth of good teaching staff to become local chapters and meaningfully utilize this platform initiated jointly by the IITs and supported by MHRD.

Highlights (3 bulleted points)

- In the upcoming July run IIT Kanpur is developing 37 courses of which 24 are new,11 are reruns and 1 is repurposed from NPTEL Phase II & III course.
- The courses "Developing Soft Skills and Personality" Enrolled – 14644,Certified - 2303

- and "Enhancing Soft Skills" Enrolled – 17981,Certified – 2538 had the maximum number of enrollments.
- Course materials are used for GATE exam preparation. Apart from this the students taking the courses are getting an opportunity work as an intern with the faculty members.
- Courses are used for credit transfers at various institutes(IIT-Madras,Kalasalingam University(TN) Madenapalli Institute of Technology (AP),Centurion University (Odisha

Project Title: DTH Project
Project Investigator:Prof. Satyaki Roy
Collaborators (if any):
1)Prof. MunmunJha.
2)Prof. RaghunandanSengupta.

3)Prof. Shantanu Bhattacharya

Project Initiated on: 20 October,2016
Project objectives:(50 words)The Ministry of Human Resource and Development launched 32 Direct-to-Home channels which would do a live telecast of classroom lectures from top institutions, including six IITs through its

Swayam Prabha initiative.

The government is focusing to expand the reach of high quality education. Through the 32 DTH channels the aim is to ensure that live classrooms can be transmitted from ten 'Teaching Ends' out of which six will be from IITs located in Chennai, Mumbai, Delhi, Kharagpur, Kanpur and Guwahati,"
Progress report:(100 words) Out of 32 Swayam Prabha DTH channels (launched early this year), 8 channels are being managed by the NPTEL Core Team. The two channels (16 & 17) are currently being managed by IIT Kanpur. These channels broadcast the NPTEL course content in Mechanical Engineering, Humanities and Social Sciences, Economic Sciences and Management.The channels are available for free on Doordarshan's Free Dish DTH platform and the students will only need a Set Top Box to receive them.
Highlights (3 bulleted points)

- The two channels are stream wise i,e channel 16 broadcasts courses from HSS, Economic Sciences and Management and channel 17 broadcasts courses from Mechanical Engineering

- Besides the existing NPTEL Courses,20 more courses are being developed this year in the field of Humanities and Social Sciences, Economic Sciences, and Management.

- Lectures recorded at other institutes are also being sourced from here (Channel 16 and 17)

IIT Bhubaneswar

During the last two years, IIT Bhuabaneswar took some important initiatives on Digital Education and put a number of them already in practice. The initiatives include, incorporating Digital Education as a mechanism in the pedagogy, using Video courses and MOOCS in education formally, initiatives in setting up a IITPAL center in Bhubaneswar, use of e-Sodh Sindhu and generation of Digital content through GIAN courses. In addition, the institute has a high-speed LAN integrated with a Wi-Fi access, 1Gbps Internet access and video camera surveillance system on the LAN.

A brief report on these initiatives is detailed as follows.

1. Digital Education as a Mechanism in the Pedagogy:

IIT Bhubaneswar has been leveraging on and uses technology and ICT for education and uses video courses/MOOCS as electives in very specialized subjects aimed at significantly broadening the scope, by the side of offering the same for supplementary education. For example, the course on Computer Programming and Data Structure was made as a (3-1-1-0) course, wherein the second '1' hour indicates 1hr of Video course browsing session, a mandatory part for which a slot is allotted in the time table.

The institute made available the following e-resources for everyone in the campus to enable browsing in both formal and informal manner:

- Video courses from very selected experts
- NPTEL courses
- p-NPTEL courses
- Other resources (MOOCs, MIT, public domain lectures)
- e-content and e-books for browsing
- e-journals,
- information on www

While the e-resources are available on the institute network and can be accessed from anywhere in the campuses, facilities for browsing the e-resources are created in some common places. Students are encouraged to use serene common facilities rather than one's own private laptop in a closed hostel room, though it is not mandatory.

2. Use of Video Courses and MOOCS in Education:

The curriculum at IITBBS has distinct provisions for students to earn credits by registering for online video courses such as those from Pre-NPTEL, NPTEL

video courses, MOOCs and other online/video courses etc. Registration for video courses are accepted irrespective of number of students opting for a video course unlike in the case of a traditional course, wherein a certain minimum number of students (i.e. 5 students) is essential for a course to run. The evaluation standard for such courses are more stringent than a traditional course offered with classroom teaching.

These courses are offered as Elective subjects to UG/PG students. UG/PG students can opt for such courses towards their degree requirement. A School comes out with select courses from these resources, assign credits and append to expand the list of Electives with the approval of the Senate. The students are allowed to opt and register for an appropriate subject out of these selected courses against an Elective course. The registered students go through the course as per given time table and assigned e-Classroom by self under the guidance of a faculty member. The concerned School to which the course belongs to, would assign credits, assign a teacher to give guidance including giving class assignments to the student and for performance evaluation (including mid-semester, end-semester examinations and Teacher's Assessment components).

Also the PhD students can choose select PG level courses from these video courses for their coursework. The DAC of aPh D student may recommend any of these courses (subject to satisfaction of pre-requisite courses) towards PhD coursework and the student can be permitted to take the course. The student will go through the course by self under the guidance of a faculty member proposed by the DAC as per the given time table. The concerned School to which the course belongs to, would assign credits, take approval from Dean (Academic Affairs), assign a teacher to give guidance including giving class assignments to the student and for performance evaluation (including mid-semester, end-semester examinations and Teacher's Assessment components).

The students attending the popular lectures from distinguished academicians/professors at distant places in virtual classrooms of the institute is a regular phenomenon. The digital education drive at IITBBS is aimed at pushing the institute closer to attain its education goals.

3. Digital Library:

The campus has a full-fledged digital/electronic Central Library which maintains large collections of digital books/e-books well as online bibliographical database subscriptions, and other electronic resources like popular magazines/print journals, theses, and reports in Engineering, Science

& Technology, Management, Humanities and Social Sciences. The electronic resources of the Library includes more than 8500 e-journals to its digital collection making "24 x 7 Library" in real sense on institute-wide network and off-campus access to e-resources through ezproxy. The library will be lined to the National Digital Library.

4. IITPAL Center:

IIT Bhubaneswar already took a decision to establish an IITPAL center to benefit the students in and around Bhubaneswar, where volunteering faculty and students would participate in providing guidance. An enrolled candidate can self-prepare in the center and can avail a teacher/student in a live form where other mechanisms such as e-Vidwans can be used. The center will start functioning as soon as the e-content is available under IITPAL.

5. Video Courses/Content Created:

IIT Bhubaneswar has already conducted 22 GIAN courses successfully in association with foreign professors. CDs/ DVDs of these courses have already been created and submitted to IITKGP (National Coordinator, GIAN).

Video recordings of these courses have already been made. Initiatives are already taken to make these courses available in the Institute website shortly. List of these courses are attached in the form of Annexure-1.

6. Campus Connectivity:

IIT Bhubaneswar has been functioning from its permanent campus. The campus is connected with 1 Gbps NKN link. The campus network has core, distributed and access network segments. It has an in-built WiFi and CCTV camera surveillance network, all designed and done in-house.

7. E_Shodh Sindhu:

IIT Bhubaneswar is a partner of e_Shodh Sindhu and uses extensively the common journal resources available therein and makes these available to its students, round the clock. Besides these, there are several other e-journals and e-books subscribed by the institute and made them available to the students without a need for separate login.

Annexure – 1 (List of GIAN Courses for which Video Courses are Created)

Sl No	Course Name	Foreign Faculty & University	Host Faculty	Duration
1	Soil Structure Interaction (SSI)	Prof. Subhamoy Bhattacharya, University of Surrey, UK	Dr. Suresh R Dash School of Infrastructure	28-12-2015 to 04-01-2016
2	Postcolonial World Literature	Prof. TabishKhair, English Department, Aarhus University, Denmark	Dr. Punyashree Panda School of HSSS&M	15-02-2016 to 25-02-2016
3	Computational acoustics Engineering and Scientific approaches	Prof. Datta V. Gaitonde, John Glenn Chair in the Mechanical and Aerospace Engineering Department at the Ohio State University, USA	Dr. Yogesh G. Bhumkar School of Mechanical Sciences	23-05-2016 to 04-06-2016
4	Productive Efficiency Theory and Practice	Prof.KaliappaKalirajan, The Australian National University, Australia	Dr Naresh ChanraSahoo School of HSSS&M	30-05-2016 to 08-06-2016
5	BIOHEAT TRANSFER	Professor Sunil Kumar, United Arab Erimates	Professor Swarup K. Mahapatra School of Mechanical Sciences	06-06-2016 to 17-06-2016
6	Modelling and Analysis of Cyber Physical Systems	1. Prof Michael Butler Professor of Computer Science at Southampton, England United States of America 2. . Prof S. Ramesh, General Motors Global R&D, G N	DrMonaranjanSatpathy, School of Electrical Sciences	08-07-2016 to 20-07-2016

		Technical Fellow, Warren, USA		
7	Fundamentals of Geosynthetic Engineering	Dr. Sanjay Kumar Shukla, Edith Cowan University, Australia	Dr. B. Hanumantha Rao School of Infrastructure	11-07-2016 to 22-07-2016
8	Modeling analysis and simulation of coagulant fluid	Asst. Prof. Joaquim M.C. Correia, DMat, ECT, University of Évora, Portugal	Dr. Rajesh Kumar School of Basic Sciences	25-07-2016 to 29-07-2016
9	Computational Electronic Structure Methods for Atomic, Molecular and Solid-State Systems	Professor Danny L. Yeager, Chemistry Department, Texas A&M University, College Station, TX 77843-3255, USA, , United States of America	Dr. KousikSamanta, School of Basic Sciences	08-07-2016 to 18-07-2016
10	Design of offshore foundations	Prof. Subhamoy Bhattacharya, University of Surrey, ,United Kingdom	Dr. SumantaHaldar, School of Infrastructure	18-07-2016 to 22-07-2016
11	Polluted Sites Characterization and Remediation	Prof. Krishna R. Reddy, University of Illinois, USA	Dr. B. Hanumantha Rao School of Infrastructure	25-07-2016 to 05-08-2016
12	Applied Cyber Security	Dr. Ehab Al-Shaer, Professor in Computer Science and Director, CyberDNA, University of North Carolina Charlotte, United States of America	Dr. PadmalochanBera School of Electrical Sciences	05-08-2016 to 12-08-2016
13	Climate Change Science, Impact and Adaptation	Prof. DevduttNiyogi, Purdue University, United States of	Prof. U. C. Mohanty, School of EOCS	1st Dec, 2016 to 8th Dec,

		America		2016
14	Current advances in numerical techniques for PDEs with random input data	Assoc. Prof. Fabio Nobile, EcolePolytechniqueFederale de Lausanne, Switzerland	Dr Rajesh Kumar, School of Basic Sciences	8th Dec, 2016 to 13th Dec, 2016
15	Satellite Altimetry and Instrumentation for Oceanography	Dr. Stefano Vignudelli, ConsiglioNazionaledelleRicerche (NRC), Italy	DrDebadatta Swain, School of EOCS	12th Dec, 2016 to 16th Dec, 2016
16	Design and Applications of Fixed Wing Unmanned Aerial Vehicles (UAV)	Prof. Sumon K. Sinha, President, SINHATECH, United States of America	Dr. Sathyanarayana A., School of Mechanical Sciences	12th Dec, 2016 to 23rd Dec, 2016
17	Multiprocessor Architectures and Programming	Prof.Laxmi Narayan Bhuyan, University of California Riverside, United States of America	DrMonaranjanSatpathy, School of Electrical Sciences	16th Dec, 2016 to 23rd December 2016
18	Extreme Weather and Climate Variability Observation, Understanding, Prediction	Prof. T. N. Krishnamurti, Florida State University, United States of America	Dr. Sandeep Pattnaik , School of EOCS	22nd Dec, 2016 to 31st Dec, 2016
19	Soil Moisture and Soil Hydraulic Properties at Micro- and Macro Scales for Water Resources Management	Professor Binayak Mohanty, Texas A&M University, United States of America	Prof. Rabindra Kumar Panda , School of Infrastructure	26th Dec, 2016 to 30th Dec, 2016
20	Travel Writing Texts, Theories, and Frameworks for Analysis	Dr Carl Thompson, Trent University, United Kingdom	Dr Amrita Satpathy, School of HSS&M	19th Dec 2016 to 29th Dec, 2016

IIT (BHU)

Introduction

Institute of Technology, Banaras Hindu University was converted into Indian Institute of Technology (Banaras Hindu University) since June 30, 2012. Center for Education Technology (CET) was converted in Teaching-Learning Cell (TLC) in June 2013. The Vision and Mission of TLC is mentioned below.

TLC Vision

To be a Cellfor facilitating studies, R&D and implementation of innovative teaching-learning methodologies/ technologies under teaching-learning processes of the Institute, in better pursuit of quality for higher technical education to the level of world class education in the service of the nation.

TLC Mission

To facilitate a productive educational environment in the Institute by way of:

1.To Motivate teachers and students towards an efficient and enjoyable educational interaction through exposure to research-based, scientifically-proven, and innovative teaching-learning methodologies.

2.To Promote high class of innovation using ICT.

3.To create and develop synergy between the teachers and students for a new and sustainable paradigm of higher technical education, with the ultimate aim of producing human resources of the highest professional and personal quality.

The TLC is a prime driver for initiating various programs and services to enable faculty and the Institution to enhance quality of education. Some of the major activities undertaken by TLC are listed below.

- Course Delivery
  i. Planning of the course delivery
  ii. Organizing course material using Moodle or other software support
  iii. Designing laboratory sessions
  iv. Dealing with large classes
  v. Organising tutorials for courses
  vi. Effective handling of tutors and teaching assistants

- Course Design and Development

- Project based learning (within course or without)
- E-learning
  i. Coordinate with national efforts in e-learning
  ii. Designing MOOC type of courses etc.

- Evaluation and assessment
  i. Designing good examinations
  ii. Grading at the end of semester
  iii. Evaluation projects

- Sharing best practices in teaching by effective teachers at IIT(BHU)
  i. Conducting remedial programs in specific areas of weakness in teaching
  ii. Faculty development program
  iii. Conducting National program on Quality Enhancement in Engineering Education (QEEE): Live Lecture, Live Tutorials, Live Labs, MOOC (Open Courseware) and Bridge Courses.
  iv. Moodle initiatives at IIT(BHU)

<u>Special programs organized during April 2016 to March 2017</u>

1. Three Days Workshop on "Making of Solar Cookers"was held on 3-5 July, 2016
2. Half Day Workshop on "Essence on Vipassana Meditation for Achieving Concentration" was held on Sep. 03, 2016
3. Two days Training program on "MOODLE for TA/FACULTY" Coordinators: TLC & PMMMNMTT teamduring Sep. 17-18, 2016.
4. Six days FDP on "Tools & Practices for Delivering ICT based course contents" Coordinators: TLC &PMMMNMTT team and IITBombayteamduring Oct. 20-25, 2016
5. Five daysNational Workshop on FDP on "Teaching-Learning Best Practices" Coordinators: TLC & PMMMNMTT team, IITMadras teamduring Dec. 12-16, 2016.
6. Three Days "Harmony Workshop"was held on 28-30 Dec, 2016
7. 1st FDP Lecture Series was held on 28 January 2017.
8. Three Days "Harmony Workshop"was held on 3-5 Feb, 2017
9. 2ndFDP Lecture Series was held on 15 February 2017.

10. One day Training program on MOOC for FACULTYCoordinators: TLC & PMMMNMTT teamduring Feb. 25-26, 2017.

11. One day brain-storming workshop on "Efficient grading system (Assessment) for FACULTY" Coordinators: TLC & PMMMNMTT team during Feb. 25-26, 2017.

12. Six Day Workshop on "QIP Short term course on Additive Manufacturing: Theory & Practice" was held on March 16-22, 2017.

13. Six days training Workshop on "Research Methodology for Research students &Faculty members" Coordinators: TLC & PMMMNMTT team during Mar. 24-29, 2017.

14. Three Days "Harmony Workshop" was held from 28-30 March, 2017.

Highlights of Innovative Practices in Teaching-Learning at IIT(BHU)

- MHRD project 'PMMMNMTT' has been sanctioned (2015-2018) for implementing the Higher Education policy of Government of India. A Teaching Learning Centre (TLC) has been sanctioned.

- Developed and launched 3 week student induction program for all first year engineering students. This model has demonstrated value addition to the student community and has now been adopted across several Institutions across India.

- Promoting Innovation at Institutional level by encouraging and motivating faculty to adopt innovative teaching-learning methodologies by launching grants such as:

  - MOOC course development grants
  - Curriculum and Instructional Innovation Grants

Highlights of Digital Initiatives at IIT(BHU)

- Quality Enhancement in Engineering Education (QEEE) program is run since 2014 to transmit Live classes, live tutorials etc. usingAVIEWplatform of various courses by IIT Faculty to all Engineering college faculty &students across India. About 500 colleges are connected with the program. IIT(BHU) is one of the nodal centre having all facilities to support the QEEE program of MHRD.

- Infrastructural facilities in TLC at IIT (BHU) support distance education programs and MOOC course development.
- Under NPTEL/ e-AcharyaInitiatives of MHRD – 15 courses have been created and launched by IIT(BHU) Faculty.
- Latest technologies such as 3D Printers & CAD Modelling are being used for enriching student learning and also faculty enablement in the areas of Product Design & Development.
- Independent Software has been developed at IIT(BHU) to support real-life Classroom audio-video lecture recordings similar to NPTEL. This is now been used to record lectures at IIT(BHU). A smart classroom has been developed to support automatic lecture recording and transmitting to students via mobile technologies.

Planned Future Initiatives at IIT(BHU)

- Develop models, animations and simulation tools toenhance teaching-learning of complex topics in Engineering subjects.
- Foster communities of practice to share best practices in teaching-learning.
- Launch Teaching Assistant (TA) training and development programs to enhance the peer-learning process and prepare TAs for future academic roles.
- Launch simulcast lecture sessions for geographically distributed students/faculty.
- Launch MOOC courses

Summary

IIT (BHU) has demonstrated its sustained commitment to foster quality education and promote student centered learning environment. A dedicated team of faculty and administrators have contributed significantly to meet the needs of the 21st century learners. IIT (BHU) is well poised to be a leader in developing/adopting best practices in digital innovations as well as teaching-learning innovations in Higher Education. To sum up, IIT (BHU) will continue to play a major role in supporting the Government of India and MHRD in enhancing the quality of Higher Education in India.

IIT Delhi

IIT-PAL

- 600 hours of fresh video content in Biology, Chemistry, Mathematics and Physics prepared by IIT professors and KV teachers for Class XI and Class XII students aspiring to join IITs. These lectures, based on NCERT syllabus, are currently available on 19-22 channelsof SWAYAM PRABHA.
- Best teachers from IIT Delhi and sister IITs with proven track record of excellent teaching have been selected for delivering IIT-PAL lectures.
- The emphasis in these video lectures is on concept building and developing scientific thinking. Many video lectures are full devoted to problem solving and practical demonstration.
- About 800 lectures were initially planned. Additionally, special IIT JEE (advanced) question papers solving sessions by IIT professors and top ranked JEE student have been planned.
- Current Status:

Subject	Video lectures ready and uploaded	Status
Biology	156	One full cycle complete
Chemistry	84	50% complete
Mathematics	177	90% complete
Physics	183	One full cycle complete

The Educational Technology Services Centre (ETSC) is actively engaged in promoting the use of Educational Technology in the Institute and also at the national level. Some of its major activities are:

- Design & Development of Instructional Resources in the form of videos and web based material

- Provision for and maintenance of Audio/Video equipment for classroom teaching.

- Organize training programs for faculty and professionals across the country

- Video conferencing for faculty selection interviews and meetings

- E-learning and distance education

- Undertake sponsored research and consultancy project

Services Offered

The Centre has a modern video studio with recording and editing facilities. A studio-classroom with seating capacity of 60 is available for on-line recording of courses. Non linear editing set up and Apple Streaming server are available for post production and video streaming. ETSC takes care of the audio-visual needs of faculty and students.ETSC has procured and installed Sony ANYCAST system in the Video Studio and in two lecture theatres for non liner editing and recording. In addition to equipping the classroom with these facilities, ETSC runs a loan service.

State of the art audio visual facilities has been designed for the new lecture hall complex. The facilities include live video recording of lectures, tablets PCs for projection of the written lectures on the screens, document partly visualizers and microphone and speakers in the classrooms. This complex has become partly operational since July 2015.

A media reference library with multiple viewing cabins has been set up in the Central Library for the use of students and faculty. The Educational Technology Services Centre has a computer laboratory with modern multimedia capabilities and internet connectivity. Computer Aided Instruction/Computer Aided Learning courses/packages are developed in the computer laboratory. Learning materials generated by ETSC are disseminated at nominal price throughout the country and abroad.

The Centre conducts short courses and modular programmed on different aspects of educational technology for teachers from the Institute and from other educational institutions and industry institutions. These courses are designed to sensitize and guide the faculty to optimize their effort and time for classroom and laboratory instruction as well as professional development.

The Centre has the expertise and experience of undertaking national and international level consultancy and sponsored research projects. It has worked with agencies such as the World Bank, AT&T, AICTE, UNESCO, UNDP Commonwealth of learning, the British Council and Addis Ababa University, Ethiopia.

NPTEL Project

The NPTEL project funded by MHRD has been successfully completed. Under this program, all the seven IITs and Indian Institute of Science have worked together to develop web and video based educational material for undergraduates courses initially in five disciplines, viz., Civil Engineering, Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering and Mechanical Engineering. The web courses so developed are available through the various servers authorized by NPTEL. Phase II of NPTEL Project has also started where its scope has been further expanded to include more disciplines and advanced/post graduate courses. IIT-PAL project and 6 channels of the SwayamPrabha projects are being coordinated from IIT Delhi. A recent activity on this was the live transmission of a 7-day MOOC Workshop on The Indian Economy by the Chief Economic Adviser, Dr Arvind Subramanian, which was carried live on a SwayamPrabha Channel as well as live streamed on Youtube.

Video Conferencing and Outreach

Video Conferencing facilities have been installed in two lecture theatres and in the Conference Room of ETSC. The facility is being used for faculty interviews, meetings and distance education. For connectivity both ISDN and IP based network connection are used. For classes to Addis Ababa University (AAU), two lecture delivery rooms have been equipped with remote teaching facility. A dedicated two-way video link is also provided for live delivery from IIT Delhi to AAU, Ethiopia.

The new lecture rooms as temporary structures have also been equipped with audio/video, projection, distance education and recording facilities. In addition, three Virtual Classroomsare also being equipped under National Knowledge Network (NKN). Live classes are run for IIT-Ropar, IIT-Mandi and Dayalbagh Educational Institute, Agra using NKN.

ETSC is current run by a team of five faculty members. The current core committee of ETSC met on 6.2.2015 it was decided that was current core group may be extended to include the following Faculty members.

1. Dr. Kolin Paul, Department of Computer Science &Engineering.
2. Dr. S.Chatterjee, Department of Electrical Engineering.
3. Dr. S.Balaji, Department of Applied Mechanics Engineering.
4. Dr. Amit Gupta, Department of MechanicalEngineering.
5. Dr. Shalini Gupta, Department of ChemicalEngineering.

A. **Intranet Applications**

1. *Office of Establishment*

(a) Registration of New Employees (Record Management of Personal, Educational, Professional details of Staff Members and Faculty Members.
(b) Leave Management Systems (Tracking of various type of Leaves, LTC and Leave encashment for Staff and Faculty Members)
(c) Pay and Half yearly Increments

2. *Office of Stores and Purchase*

(a) Floating and tracking of Tenders
(b) Generation of Invoices
(c) Issuance of Purchase Orders
(d) Record of Import Items
(e) Maintain the Stores and Purchase work flow
(f) Maintain information of imported equipment or items

3. *Office of Academics*

(a) Portals for Student, Faculty Members and Administration to perform various tasks
(b) Registration of new students
(c) Collection of fee from new/old students
(d) Record of new courses and Faculty Members teaching in these courses
(e) Registration of students in various courses
(f) Grades uploading facility for courses
(g) Record of Feedback provided by students on Instructors and Courses
(h) Generation of Transcripts and Grade Sheets

4. *Office of Students*

(a) Hostel management of Students
(b) Leave record of M.Tech. and Ph.D. Students
(c) Record management of Teaching Assistantships

5. *Office of Research & Development*

1. Registration of New Projects
2. Record of Grants
3. Generation of Invoices
4. Voucher processing (like advance, advance settlements and payments)
5. Generation of reports related to all Research and Development Projects

6. *Office of Library*

(a) Maintenance of Full Book Acquisition work flow from creation of indents till issuance of purchase orders
(b) Record of issuance of Books and fine imposed

7. *Other Digital Payment System*

(a) Transaction related to Library Dues for Students
(b) Medical Booklet of Students
(c) Fee for lost ID Card by students and employees

B. Internet Applications

1. *Office of Recruitment (Non-Academic Staff and Faculty Members)*

(a) Eligible applicants can register in portal
(b) Maintain Personal, Educational, Professional details and attachments, Online Fee payment and receipt generation
(c) Administrator can view the details of persons applied for various posts

2. *Office of Research & Development (Project Staff Recruitment)*

(a) Eligible applicants can register in portal
(b) Maintain Personal, Educational, Professional details and attachments, Online Fee payment and receipt generation
(c) Administrator can view the details of persons applied for various posts

3. *Digital Payment System*

(a) Online Fee Payment for Collection of Academic Registration Fee
(b) Student Document Verification Fee
(c) Transcript Fee

DIGITAL INITIATIVES BY MM UNIVERSITY, MULLANA

Maharishi Markandeshwar University (MMU), Mullana - Ambala, has become a symbol of quality education in technical, professional and medical streams in northern India and has been carrying on its lineage for over 24 years. Digitization in education industry has totally changed the learning and also the teaching process to a very great extent. MMU is also under the phase of transformation and various initiatives have been taken by the university in this direction. Some key areas where university has transformed in to digital mode are as follows:

Online Admissions: The University provides the option to apply and register online. Even the mode of payment of fee is digital. The entire process of online admission and fee payment is clearly explained on the university website.

Enterprise Resource Planning: The University owns software which is complete database of University records. All university employees and students can access the software using a login. The database performs the functions of maintaining online Student database, attendance record, and Result declaration. Beside this, the faculty attendance, their payroll statement and their leaves record are also maintained digitally. The faculty feedback and appraisal process is done digitally through this software.

Digital teaching: The University is a place of academic teaching. Outmoded teaching methods need to meet with 21st century teaching and learning trends. By getting digitalized, the material has the power to involve students in methods that aren't possible with stationary pages. The university provides various digital platforms for e-learning like Smart Boards, NPTEL, MIT, Webinar, MOOC Courses through SWAYAM, Spoken Tutorial Classes through IIT Bombay and Course Material in the form of PPTs on the ERP.

Digital Learning Resources: Wide and frequent availability of digital technologies have evolved the numerous resources for effective learning. Even the university library maintains its purpose as a key factor in the distribution of academic knowledge. The University Library has a collection of 6000+ e journals, 5000+ CD/DVDs. The university has an access to various open educational resources like electronic database like EBSCO, DELNET, INFLIBNET and many more.

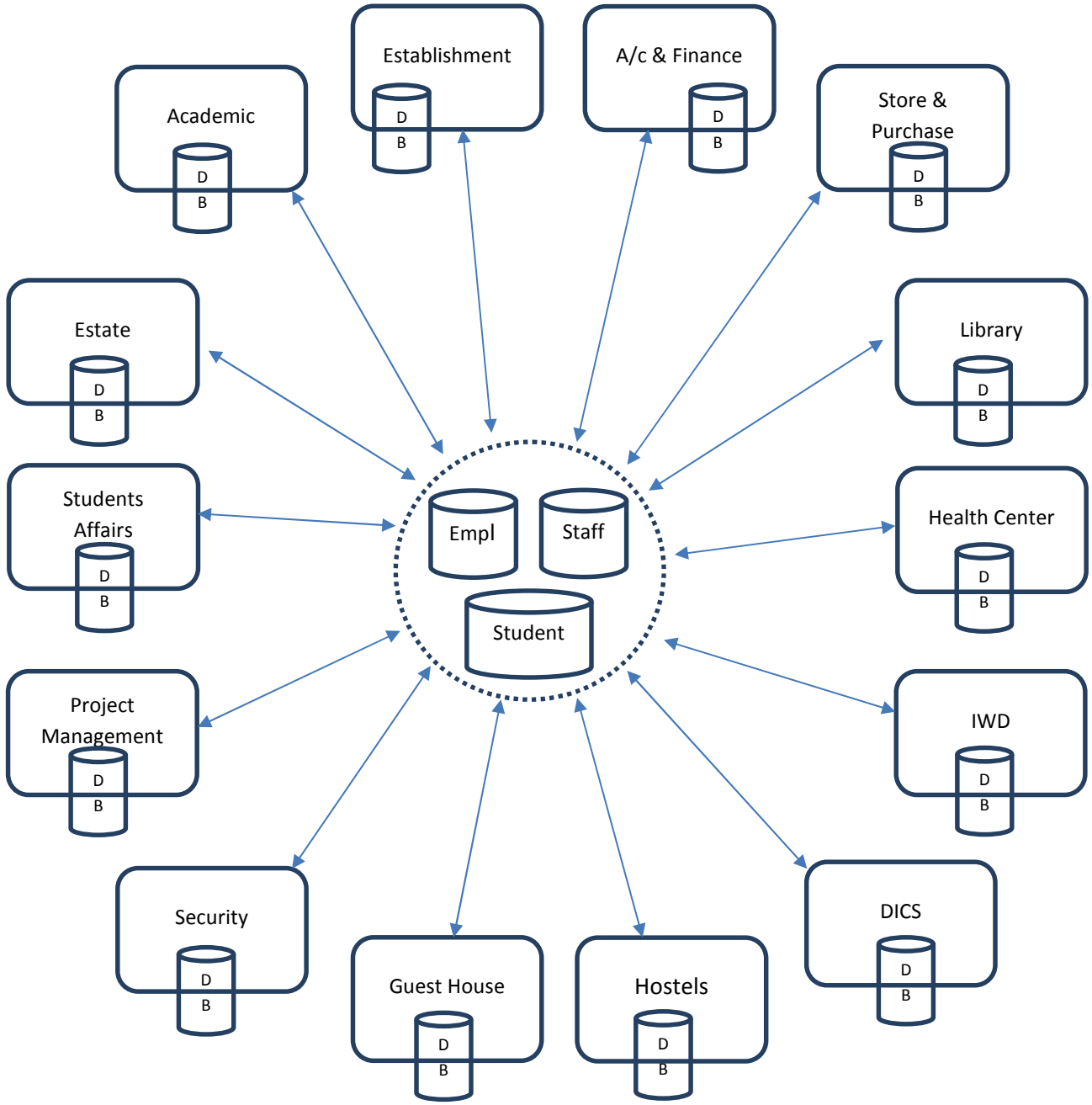
Digital Financial Transactions: The University uses the digital mode of payment for its various financial transactions. All kind of payments and receipts like purchases, remunerations to the outside guest, student fees etc are done in digital mode.

Online Placement Process: The University placement cell conducts online test for various companies that come for placements.

The university is in continuous effort to move toward digitalization as it will be beneficial for all the stakeholders of the university that is students, employees and parents.

Digital Initiatives at IIIT Allahabad

Modular MIS/ERP



- Records of employees, students and agency staff are maintained in a Central Database through their respective application software.
- This enables central authentication system for all the application software.
- All application software maintain a private local database at their end with read only access to any other application for information sharing.
- A central backup server maintains a copy of all databases at a central location which for updation of records synchronizesitself with original databases periodically using incremental backup mechanism.

AutomationApproach

A team works on MIS/ERP having a holistic vision but following a modular approach. Faculty members in the automation team are involved in requirements engineering and design to finalize the software requirements document and software design document. Based on these, modular systems with complete documentation by technical team to enable student team forwell commented standard coding, testing and deployment along with preparation of user and technical manuals.

While developing modules for a particular department, automation team associates with head/in-charge and one staff of the department to study the functioning of department from automation point of view in addition to providing the requirements. Accordingly, System Requirement Specification (SRS) document is prepared so that design; coding etc. becomes easy and productive task for technical and student teams. At the successful deployment of developed modules, proper training of users gets conducted by technical team prior to handover of functional system's control along with relevant manuals to the user department.

Structure of MIS/ERP

MIS/ERP is a suite of integrated applications that our Institute uses to connect its business activities across departments so that everyone is working with the same data and processes. Institute uses it to streamline and improve the efficiency of its operations, which saves time and money. In the course of implementing MIS/ERP, Institute also standardizes and automates many existing processes, which eliminate manual time and effort. Because the ERP system offers a single repository for campus-wide data that is accessible to everyone, the risks associated with working with disparate systems and data - like the potential for error or duplicating business functions in differentdepartments - can be reduced to maximum possible extent.

ERP Modules

Under going initiative of ERPdevelopment consists of several modules. Each module focuses on one area of business processes, such as academic or establishment. The core modules of system identified are:

1. **Academic**
    a. Registration/reregistration
    b. Course allotment
    c. Time-table
    d. Attendance
    e. Examination
    f. Certification
    g. Student Training and Placement

2. **Establishment**
    a. Service book
    b. Leave register
3. **Estate**
    a. Asset management
    b. Allotment
    c. Housekeeping maintenance
4. **Store and Purchase**
    a. Tender processing
    b. Order processing
    c. Stock book entry
    d. Material management
    e. Utilization status
5. **Finance and Accounting**
    a. Salary processing
    b. Payment processing
    c. Expenditure
    d. Budgeting
6. **Student Affairs**
    a. Alumnae
    b. Technical activities
    c. Sports activities
    d. Cultural activities
7. **Library**
    a. Acquisition
    b. Cataloging
    c. Circulation
    d. Housekeeping maintenance
8. **Technical Department**
    a. Hardware
    b. Software
    c. Network services
    d. Maintenance
9. **Works Department**
    a. Electrical/Civil maintenance
    b. Sanitary/Plumbing maintenance
    c. Stock book and utilization
10. **Project Management**
    a. Project status
    b. Fund utilization
11. **Security**
    a. Engagement
    b. Deployment
    c. Attendance
    d. Wages

12. **Guest House**
    a. Visitor In/out
    b. Earning/expenditure
    c. Stock status
13. **Health Center**
    a. Medication
    b. Medical procurement
14. **Hostels**
    a. Allotment
    b. Stock status
    c. Mess management
15. **Horticulture**
    a. Nursery stock
    b. Gardener attendance
    c. Wages
16. **Alumni**
    a. Registration
    b. Communication
    c. Involvement
17. **Pension**
    a. Registration
    b. Redressal

TheMIS/ERP is an integrated system of network based distributed database applications under direct control of respective user departments. Information and Communication ServicesDepartment ensures functional support to user departments, safety and security of databases on servers as well as uptime of applications over campus LAN.The modules are in their preliminary stage and are being reviewed by automation team and end users on a continual basis for corrective and perfective maintenance.

Few of the above modules have been deployed and are in usefor a few months invarious user departments such as

- Online payment portal for fee deposition at Accounts department
- Online RTI management at RTI cell
- Use of Tally for accounting and balance sheet at Accounts department
- Student registration and online fee payment at Admission cell
- Online application filing at PhD cell
- Cataloguing and circulationat Library
- Patient registration and medication at Health Center
- Material issue and return at Store department
- Tender management at Purchasedepartment
- Electrical billingof campus inmates at Accountsdepartment
- Online Help Desk portal for maintenance of campus services etc.

Structure of Automation Team

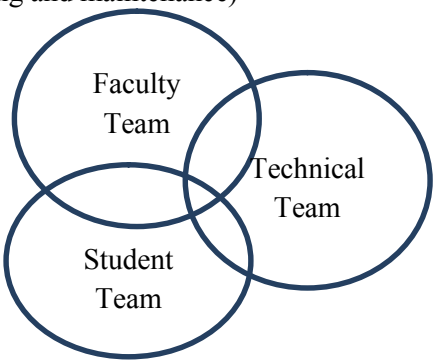
Following structure of automation team is proposed for continuous and incremental development of Management Information System (MIS) and Institute/Enterprise Resource Planning (ERP) system

A) Faculty (Role as experts/consultants for SRS and SDS documents)

B) Technical (as experts for design, development, documentation, user training and maintenance)

C) Students (as learners + experts for coding, testing, deployment, manuals)

- B.Tech. III semester – 2 Nos.
- B.Tech. IV semester – 2 Nos.
- B.Tech. V semester – 2 Nos.



Role of Team Members

A+B

Problem identification, standardization andprocedure specification

Solution architecture design, object identification and documentation

B+C

Implementation of SDS, modularization of procedure and object class creation

Database design, coding, functional testing and preparation of manuals

B

Documentation, user training,functional support and software maintenance

Selection of Student Volunteers

Selection of student volunteers take place through an open selection procedure from III, IV and V semester students and a test of their technical skills and understanding of subject, if more applicants turn up. In a team of 6 students, 2 students from semester II contribute for 18 months, 2 students from semester IV contribute for 12 months and 2 students from semester V contribute for 6 months. So that rolling entry and exit of students keeps the pace of development process and deliverables to the user department maintaining the deadline.

Recognition to Student Volunteers

Apart from exposure and experience of real time software development life cycle in the guidance of faculty and technical experts, student volunteers are rewarded with a Certificate of Appreciation in order to recognize their valuable contributions in the digital initiatives of the institute.

Initiatives by Departments

- Online Admission Process for MBA & MBA -PhD. https://reg.iiita.ac.in/
- Online registration of Alumni through Departmental portal. https://mba.iiita.ac.in/?pg=alumniReg
- Outreach Programs like Management Clinic is online. https://mba.iiita.ac.in/?pg=clinic
- E-newsletter by name of 'B-cognizance' being published since 2004 https://bcognizance.iiita.ac.in/
- Delivery of lectures using digital technology to convey the informative resources for better quality teaching and learning.
- Use of digital devices like laptops and tablets to connect with large scale audience.
- Use of online networks and social media to connect with alumni for bridging gap between academia and industry.
- Use of digital libraries for accessing high quality journals and conferences materials for the knowledge improvement of students and faculty.
- Use of digital technology for accessing commercial tools for simulation.
- Development of prototype with digital controlled facility for autonomous operation in the under graduate project.
- Development of prototype for security application.
- Development of app based application for health care system.
- Elective registration portal.
- Project registration portal.
- Online lab program evaluation tool.

Initiatives for Institute Website

Institute website publishes following contents of public interest specially student aspirants

- Tender/enquiry
- Seminar/conference/workshop
- Course structure
- Fee structure
- Academic calendar
- Facilities at campus
- Scholarships
- Vacancy
- Form formats

Initiatives under MIS/ERP

Online Application Portal

An online application portal is developed to cater any kind of application like admission to any particular program, summer research program or recruitment. Salient feature of the portal is:

- Completely customizable to cater any kind of application, with minimum configuration changes. Can be used for various activities ranging from PhD application to Faculty Recruitment.
- Integrated with SMS Gateway and Email Server, to inform applicants about any change in application status or to send any generic notice.
- Integrated with online Payment Gateway. Fees can be configured through interface based on different category(SC/ST/OBC-NCL/Women/PwD) or type of application. Applicant can pay their application fees online using Credit/Debit Card, Net Banking.
- Email and Phone Number of all applicants are verified using OTP sent via SMS and Email.
- Online custom report generation system available to selection committee, where they can filter or sort applicants based on any criteria and generate selection list based on it.
- All application are assigned a unique code which can be tracked easily by either applicant or selection committee staff. Also all application forms contain bar-code which can be easily readable by bar-code scanner for further processing.

Online Student Management and Semester Registration System

An online Student Management System has been developed to facilitate Students, Academic Section and Faculty members to manage all academic activities easily and efficiently. Some of the features of the system are:

- **Course Selection and Course Registration:** Before Semester Registration student can give their preferences related to elective courses online. After Semester Registration they can view all of their enrolled courses(including core and elective subjects) by logging to their student portal.
- **Online Payment of Semester Fees:** Student can pay their semester fees online using debit/credit cards or net banking. They can also pay using NEFT/DRAFT but they have to add that information online and A/Cs personnel can verify that details later using another interface. Accounts section can generate various reports based on the payment received. Also student can viewed their payment history online.
- **Semester Registration:** Semester Registration is tightly integrated with online application portal(optional), course selection and semester fees payment. After each semester student gets registration receipt containing their enrolled courses and details of fee structure and their payment details.

- **Generation of Exam Time Table and Attendance Sheet:** This process is semi-automatic, where concerned personnel generate time table based online clash checking and slot recommendation system. Attendance Sheet will be generated automatically after finalizing schedule.
- **Marks Upload and Verification:** Faculty members can upload marks and grade range using an online portal. Grades are calculated automatically from the grade range provided by the concerned faculty. All grades are verified twice by Academic Staff and grade is stored in a secure database. We are in process to implement digital signature to ensure validity of all grades stored in the system.
- **Attendance System:** Faculty members will have to upload attendance for all students. Based on the attendance, management can take further decision. We are also in process to make this data available to the parents.
- **Personal and Academic Data:** All personal and academic data is available to Academic Section via an online interface, and can be used to generate various reports for internal or external purpose. Also they can get verified contact details of both students and their parents through interface.
- **Academic Certificate Repository:** Scanned copy of all academic certificates (including qualifying exam mark sheet or certificate like IIT-JEE, GATE, and CAT etc.) is kept at a secure location and can be downloaded by the Academic Section Staff via Student Management Section interface.
- **Generation of various documents/certificate:** Based on the available data, various student documents are generated, like ID card, Transcript etc. We are currently assessing possibility to push digital copy of the documents to Digi locker using issuer API.
- **Custom Report Generation:** Academic Section can generate various reports for internal and external agency related to student personal and academic data.
- **Web based CMS:** A web based CMS is developed where academic section provides important information and notices related to academics. It also provides necessary forms to students.

PhD Thesis Submission Workflow

Online PhD thesis submission workflow caters the complete thesis submission work flow for PhD students. PhD students can login to the thesis submission portal and submit their thesis online. Concerned faculty member(s) can evaluate the thesis and if approved PhD section can send it to reviewers selected by concerned authority. Once reviewed and accepted, the thesis will be stored on digital repository.

Library

Library Automation:

To perform library services efficiently, a Library management system (LibSite software, developed in-house), Digital Repository System(DSpace) and a Resource Discovery system(VuFind) is used.

Currently in process to make the library open access using RFID based tracking system. The software has been successfully tested partially using RFID reader-writer hardware.

In the process to migrate our current library management software LibSite to open source Koha, in order to compliant with latest open access technologies. Some of the features of the system are:

- **Automated Circulation Facility**
- **Online Reservation of Books**
- **Suggestion Management**
- **Acquisition Management**
- **Automated Email alerts:** Automated email alerts are generated for new arrivals, loan status, overdue reminder and availability of requested/reserved books.
- **Multi-Faceted One Window Search System:** Patrons can search from books, thesis using a single window multi-faceted search system. We are currently in process to accommodate external resources like journals, e books in the search facility.

Digital Repository:

- Library is subscribing a large number of online e-journals/databases and other publications such as IEEE, Emerald Insight, ACM, Springer, Elsevier-Science Direct, JCCC (Bibliographical database), Sage Publication, Economic and Political Weekly, ISID Database, JSTOR, Nature, Oxford University Press and Web of Science, wherein the publishers provide IP authenticated access for multiple users accessibility with full text and unlimited download facility.
- Library has 1490 online eBooks collection procured from renowned publishers like Elsevier and Pearson. All these eBooks have been catalogued in library web portal so that it can be easily searchable and accessible to the users from single window.
- All M.Tech&Ph.D theses have been catalogued in library database
- The library has a setup of E-Media Section equipped with 20 computer terminals, more than 1000 video lecture cassettes on 27 subjects and 2500 CDs/DVDs containing drivers/tools/instructor manual/supplement etc.
- As per promotional policy of the library, frequent email alerts are being floated among the library users to keep them updated about the available resources and enhance the usage of it.
- Library provides e-document/article delivery services to its users (on demand basis) by email.
- Time to time, library conducts “User Awareness Programs/Workshops” about the subscription of digital resources.

Online RTI Facility

People can apply online to avail information available under Right To Information act, 2005.

Online/Digital Payment

Members can pay any fees like library fines, swimming pool fees, event related fees or any other miscellaneous fees using their debit/credit card on PoS machines. Students have option to pay their semester/admission fees online using debit/credit card or net banking.

Inventory Management System

Online inventory management system caters our Store and Purchase department in order to manage procurement and to track stock of items on daily basis. The feature of Inventory Management System is as follows:

- **Item Indent Module:** Members can raise indent for any items online. After approval of concerned authority store & purchase section can issue tenders or ask for quotation from the vendor.
- **Procurement:** Based on the quotation, system will generate a comparative statement. Once a vendor is confirmed, order will be placed to him. Once received item will be automatically added to the stock.
- **Issue/Return:** Store can issue items to the members and system will maintain item issue history to each member.

E-Tendering

Health Center Management

Online health center management is developed containing following features:

- **Patient Registration:** All patients need to register online (done by the concerned health center staff) before any medication or consultation by doctor.
- **Medication:** All medication prescribed to the patient is updated online, which will be useful to check his medical history and also for auditing purpose.
- **Pharmacy Store:** Medication issued by Pharmacy Store is maintained automatically.

Campus Licensee Management:

Online campus licensee management software is used to allot residence to the members and keep track of other related activities like Electricity Billing, Cable TV Billing etc.

- **House Allotment:** House allotment is done by the system based on availability and the eligibility of the concerned employee.
- **Electricity Billing:** Electricity bill is calculated based on the input provided by concerned staff in the system. It is also notified to the accounts section and the concerned resident.

Helpdesk

Any member can register his problem/complain related to varied section using online helpdesk. All service department personnel actively monitor the helpdesk and provide resolution of every problem.

Projects undertaken at IIIT A

Project

Setting up Scanning Centers in Uttar Pradesh for participation in the Million Book Universal Digital Library Project of Carnegie Mellow University (USA), USA.

i) Funding Agency:	Ministry of Communication and Information Technology, New Delhi.
ii) Brief Project Summary:	To procure and setup the digitization center for Universal Digital Library.
iii) Technical Status:	The center was successfully setup and is fully operational and has been used for digitizing more than 1 million pages (6161 books).

iv) Financial Status (Total Project outlay, expenditure to date):

Total Project outlay:	20 lakhs
Expenditure to date:	20.02 lakhs
Duration and year of initiation:	3 years, March 2003
Expected date of completion:	March 2006

Project

Digital Library Mega Centre Language Technology and Content Development

i) Funding Agency: Ministry of Communication and Information Technology, New Delhi.

ii) Brief Project Summary: Mega Digital Library Centre: Content Creation (in Sanskrit and Hindi as well as in English) and Tools Development for Creation, Indexing, Search and Access

iii) Technical Status The center has digitized ~ 12.5 million pages and related technology as per objectives.

iv) Financial Status (Total Project outlay, expenditure to date):
Total Project outlay: 140 lakhs.
Expenditure to date: 122 lakhs

v) Duration and year of initiation: 3 years, March 2004

vi) Expected date of completion: March 2007

Project

Digital Library Mega Centre: Content creation in Tibetan, Sanskrit and English

i) Funding Agency: Ministry of Communication and Information Technology, New Delhi.

ii) Brief Project Summary:

Scanning, digitization, meta data creation, quality checking and storage of 14 million pages of printed documents and 25000 pages of rare, handwritten documents.

ii) Technical Status The center has digitized completed the target and relate technology as per objectives.

iii) Financial Status (Total Project outlay, expenditure to date):
Total Project outlay: 105 lakhs.
Expenditure to date:

iv) Duration and year of initiation: 3 years, March 2004

v) Expected date of completion: March 2007

Documents Digitized by IIIT A - Libraries

- AU(CL) & Hindustani Academy
- RKM, Allahabad
- NASI, Allahabad
- GIDS, Lucknow
- Law Dept. AU
- IDSA, New Delhi
- English Dept. AU
- IIPA, New Delhi
- IAMR, New Delhi
- Bundelkhand Uni. Jhansi
- USI, New Delhi
- NPL, New Delhi
- Botany Dept. AU
- NPL, New Delhi
- Botany Dept. AU
- USI, New Delhi
- Sanskrit Dept. AU
- ASI, New Delhi
- Dept. of Secondary Education, Govt. of UP, Lucknow

ABV-Indian Institute of Information Technology & Management, Gwalior

Digital Initiatives

We have implemented several digital initiatives at our institute. Following is a snap shot of the same.

Initiative 1: NPTEL/ Swayam

Courses under NPTEL are being used to complement the teaching resources. A list of good MOOC courses is also used by student community.

We have 48 NPTEL courses subscribed.

Our faculty has developed e-contents for the following courses under NMEICT funding:

a) Real life learning applications using soft computing : as an outcome of this, a virtual lab where industrial applications in genetic algorithm, fuzzy logic and neural networks are given.
b) IT enabled Management.

Benefits

i. The e-content in NPTEL is quite interesting. Students find it sufficiently engaging.
ii. This has also helped us to partially overcome the faculty shortage.
iii. The idea of flipped classroom in some subjects has been found to be quite useful.

Suggestions

a. IIITs to be made part of developing e-content under Swayam.
b. A formal system need to be recognised for identifying the credits completed by students. At present, these courses are perceived as non-credit courses.

Initiative 2: National Digital Library (NDL)

ABV-IIITM has become member of NDL. We have also loaded content in NDL's repository.
Gwalior's rich heritage (both Musial and cultural) is planned to be uploaded on this portal.

At the institute level, we have also set up an institutional digital repository in line with the objectives of NDL.

A regional workshop was organised with the help of IIT Khragpur for sensitizing various educational institutes in central India on NDL.

Benefits

i. The students are exposed to rich repository available in the country.
ii. This has helped in avoiding duplication of work.
iii. This has also made students aware about the role of non-engineering disciplines available in the country.

Suggestions: We need to identify a regional coordinator for implementation issues related to NDL.

Initiative 3: National Academic Depository (NAD)
We have participated in the workshop for NAD. The digitization of degrees/academic records is already done.
ABV-IIITM is in the process of finalising the MOU with CDSL Ventures Ltd(CVL).

This will help us a lot in digitizing the delivery of degree on line and in digital form.

Initiative 4: e-shodh Sindhu
ABV-IIITM is a subscriber of e-shodh Sindhu. More than 2300 journals are being subscribed.

(A) Subscribed Through E-Sodh Sindhu

S No	E-Resources	No. of Journals
1	ACM Digital Library	140
2	Economic & Political Weekly	1
3	IEEE/IEL Online	479
4	Institute for Studies in Industrial Development (ISID) Database	Database
5	J-Gate Plus (JCCC)	Database
6	J-Stor	1
7	Nature	1
8	Oxford University Press	262
9	Springer Link	1438
10	Web of Science Lease Access	Database
	TOTAL	**2322**

Similarly, we also subscribe to e-books. Details of E-Books

e-books available of Taylor & Francis (www.crcnetbase.com)	393
IEEE-Wiley e-Books collection	440
Springer eBooks Subject Collection	4655
TOTAL	**5488**

Benefits:

i. This has reduced our cost of procurement as these journals are available with support from MHRD and Inflibnet.
ii. It has also formed a vital part of our research eco-system.

Initiative 5: Campus connectivity
NKN is being utilised. Wi-fi connectivity has been provided in the academic blocs and library, MDP and Visitor's hostel. There is LAN connectivity in hostels
Through NKN, we are able to utilise our video conferencing facility. We participate in conference organised by Rashtrapati Bhavan.

Initiative 6: FOSS: Free & Open Source Software
We are making use of these. Python is being used. Scilab is promoted in courses. For Thesis work, students are required to use Latex only.

Initiative 7: Digital Payment

The fees payment is through an automated system where only digital payments is accepted. Campus utilities such as cafeteria, Guest house are Paytm and POS enabled.

Benefits

i. This has enabled transparency and ease of doing business on the campus
ii. The paper work is substantially reduced.

Other initiatives

i. A few apps are developed such as : a) dust bin locator, b) Girl help line (Sakhi), c) Class room attendance management system, etc. which are used campus wide.

ii. Government portal GeM is used for purchases

iii. Vendors are registered and their payment is through digital mode only.

iv. We also conducted Vitiya Sakshrta Abhiyan for the surrounding community and impressed on them the advantages of digital payment.

v. GIA courses are identified as audit courses.

vi. Ph D thesis are being uploaded through Shodh ganga initiative. (by Inflibnet)