



SARDAR VALLABHBHAI NATIONAL INSTITUTE OF
TECHNOLOGY, SURAT

SVNIT

No: Dean (Acad.)/IAAC/625/2022-23

Date: 01/03/2023

The minutes of the 61st meeting of the Institute Academic Advisory Committee (IAAC)

The aforesaid meeting was held on 28th February 2023, 02:30 pm onwards in the Institute Conference room, first floor, Administrative Building. The following members attended the IAAC meeting.

Sr. No.	Name	Designation
1	Dr. Anupam Shukla	Director, <i>Chairman</i>
2	Dr. Pramod Mathur	Registrar
3	Dr. V. L. Manekar	Dean (Planning and Development)
4	Dr. C.D. Modhera	Dean (Faculty Welfare)
5	Dr. Ravi Kant	Dean (Students' Welfare)
6	Dr. M. A. Desai	Head, Department of Chemical Engineering
7	Dr. G.J. Joshi	Head, Department of Civil Engineering
8	Dr. Rupa G. Mehta	Head, Department of Computer Science and Engineering
9	Dr. A. K. Panchal	Head, Department of Electrical Engineering
10	Dr. Rasika Dhavse	Head, Department of Electronics Engineering
11	Dr. Jyotirmay Banerjee	Head, Department of Mechanical Engineering
12	Dr. S.K. Sahoo	Head, Department of Chemistry
13	Dr. Jayesh M. Dhodiya	Head, Department of Mathematics and Humanities
14	Dr. Dimple V. Shah	Head, Department of Physics
15	Dr. H. R. Jariwala	Associate Dean (Academic)
16	Dr. D.R. Roy	Associate Dean (Academic)
17	Dr. R.K. Jana	Associate Dean (Academic)
18	Dr. Y.D. Patil	Associate Dean (Planning and Development)
19	Dr. H.B. Mehta	Associate Dean (Research and Consultancy)
20	Dr. S.R. Patel	Associate Dean (Students' Welfare)
21	Dr. M.A. Zaveri	Dean (Academic), <i>Member-Secretary</i>
Invitee(s)		
22	Dr. H.P. Bulsara	Associate Professor, Department of Mathematics

		and Humanities
23	Shri Amit C. Patel	In-Charge Deputy Registrar (Academic)

The following could not attend the meeting.

Sr. No.	Name	Designation
1	Dr. D.C. Jinwala	Dean (Research and Consultancy)
2	Dr. U.D. Dalal	Dean (Alumni & Resources Generation)
3	Dr. S.S. Arkatkar	Associate Dean (Planning and Development)
4	Dr. Sushil Kumar	Associate Dean (Faculty Welfare)
5	Dr. N. D. Jariwala	Associate Dean (Research and Consultancy)
6	Dr. M.K. Rathod	Associate Dean (Research and Consultancy)
7	Mr. Raghav Khandelwal	Students' General Secretary
8	Mr. Sarvesh Kumar	Academic Affairs Secretary (AAS)
9	Ms. Janavi Popat	Research Innovation Affairs Secretary

Items and Resolutions

Item No.	Agenda Item	Remarks
Item 1	To discuss and finalise the curriculum structure and Multiple Entry Multiple Exit (MEME) for implementing National Education Policy (NEP) 2020 based on the reports submitted by the committee which have been discussed in the 60 th IAAC for further approval in next Senate meeting for implementation from the Academic year 2023-24.	
Reso. 1	<p>The curriculum structure and Multiple Entry Multiple Exit (MEME) for implementing National Education Policy (NEP) 2020 are discussed. Various suggestions like the seamless movement of students should be allowed across NITs, IITs and IIITs. The screening (written) test will be conducted for the students coming from other NITs, IITs and IIITs. No screening test for SVNIT's own students who were admitted in the first year of the program. The examination pattern for the subject will be the same as that of existing pattern – continuous evaluation (20), Mid-semester (30), and End semester (50) marks for theory and practical (40%) continuous evaluation and (60%) end-semester evaluation. For vocational training / experiential learning, the evaluation criteria and mode of evaluation (written / practical / continuous) will be decided and announced by the respective department. The total marks of evaluation for vocational training / experiential learning are 100. The Multiple Entry and Multiple Criteria and Curriculum Structure depicted in Annexure 1.1 is approved by IAAC for further approval in the next Senate meeting for implementation from the Academic year 2023-24.</p> <p>The curriculum template is indicative of designing the curriculum by the respective department. In the curriculum template, a total of 10 Elective subject slots are proposed (1) One Elective in the third semester (2) One Elective in the fourth semester (3) Two Electives in the fifth semester (4) Two Electives in the sixth semester (5) Four Electives in the seventh semester. Out of these elective subject slots, One slot in the fifth</p>	

	semester, One slot in the sixth semester, and Two slots in the seventh semester can be used for defining the specialization track across the departments or Minor / Honour. The rules and regulations for B.Tech. and M.Tech. will be announced in connection with NEP 2020 implementation from the academic year 2023-24 covering all guidelines for specialization track, Minor, Honour, Vocational training, and Experiential learning. The curriculum defined by various departments attached as Annexure 1.2 .	
Item 2	To discuss and submit an action plan, faculty, and infrastructure requirement for the following new programs (1) M.Tech. Computer Science and Engineering with Specialization in Information Security and Privacy (2) M.Tech. Computer Science and Engineering with Specialization in Data Science (3) B.Tech. and M.Tech. Dual Degree Programme in Mathematics and Computing with exit option after B.Tech. (4) M.Tech. Mechanical Engineering with Specialization in Machine Design (5) B.Tech. Artificial Intelligence and (6) Five years integrated Master of Business Administration (MBA) (7) Two years PG program Master of Business Administration (8) Bachelor of Planning (B. Plan.) (9) B.Tech. Electronics and VLSI Engineering to the Senate and Finance Committee of the institute through IAAC for BoG approval and necessary notification for announcing the programs for admission from 2023-24. (Resolution no. 61.17.1 of 61 st meeting of BoG held on 27 th September, 2022).	
Reso. 2	The action plan with starting of the program from the next academic year, faculty requirement, student strength, and infrastructure requirement with intake strength of student for each program are discussed and approved for further approval of the senate and finance committee and the detail is attached in Annexure 2.1 and forwarded for BoG notification of new programs for admissions through JoSAA and CCMT respectively . The programs considered for the next academic year, 2023-24 are as follows: (1) M.Tech. Computer Science and Engineering with Specialization in Information Security and Privacy (2) M.Tech. Computer Science and Engineering with Specialization in Data Science (3) M.Tech. Mechanical Engineering with Specialization in Machine Design (4) B.Tech. Artificial Intelligence and (5) Five years integrated program in Master of Business Administration. (6) Two years program in Master of Business Administration (MBA) (7) B.Plan. (8) B.Tech. Electronics and VLSI Engineering. It is resolved that the program B.Tech. and M.Tech. Dual Degree Programme in Mathematics and Computing will be considered for starting from the academic year 2024-25.	
Item 3	To discuss and adopt resolutions about the curriculum and syllabus of the four-year undergraduate program B.Tech. in Artificial Intelligence (B.Tech. AI), program to be commenced from the academic Year 2023-24 under the Department of Artificial Intelligence in reference to resolution no. 61.17.2 of 61 st meeting of BoG held on 27 th September, 2022.	
Reso. 3	The curriculum structure and syllabus of B.Tech. AI is presented by the HoD of the Department of Computer Science and Engineering as per the NEP curriculum structure format. It is approved for further approval by the Senate. The curriculum of B.Tech. Artificial Intelligence is attached in Annexure 1.2 .	
Item 4	To discuss and adopt resolutions about the curriculum and syllabus of the Dual Degree Programme: Bachelor of Technology and Master of Technology in Mathematics and Computing in reference to resolution no. 61.17.1 of 61 st meeting of BoG held on 27 th September, 2022.	
Reso. 4	The head of the department is advised to explore the placement scenarios of the currently running five years integrated M.Sc. in Mathematics program which will help	

	in starting the new program B.Tech. and M.Tech. in Mathematics and Computing. It is resolved to consider the item for starting the program from the academic year 2024-25.						
Item 5	To consider a proposal to start an MBA program from the Academic Year 2023-24 / 2024-25 in reference to the approval of 55 th Senate held on Sept 20, 2022.						
Reso. 5	The head of the mathematics department and faculty of management presented Two years PG program in MBA, and the scheme and syllabus are approved. From the chair, it is requested for proposing Five years integrated program in Master of Business Administration. Both these programs will be started under the Department of Management Studies. The curriculum of Five years integrated program in Master of Business Administration and Two years PG program in MBA are attached in Annexure 1.2.						
Item 6	To consider a proposal to start a joint Ph.D. Program with Indian Institute of Technology, Mandi, and Indian Institute of Technology, Jammu. A draft agreement to be signed for the purpose between the two institutes is attached herewith.						
Reso. 6	The draft agreement is reviewed by the respective institute. The MoU between SVNIT and these institutions is already signed for such academic collaboration. It was also resolved to create a shared pool of faculty resources between the two institutions. It is resolved to forward the proposal of the joint Ph.D. program for approval by the Senate starting from the year 2023-24. The MoU copies are attached in Annexure 6.1.						
Item 7	To consider the recommendations of DAAC, Department of Chemical Engineering regarding the vacation of faculty members involved in B.Tech-I Year classes. (Reso. 5 of the 99 th meeting of the DAAC held on 3/11/22). Faculty members who are involved in B.Tech-I year classes do not get any vacation due to rescheduling the Academic Calendar for 1 st Year. It is suggested to devise a policy at the Institute level for such faculty to have a break/vacation for them.						
Reso. 7	The head of the Chemical Department presented the view that the faculty involved in the first year has to do the duty of teaching on Saturday due to late start of the session of the first year. It is expected the beginning of the first-year session will be regular soon. If a situation arises again, it will be discussed with Dean (Faculty Welfare)						
Item 8	To consider the recommendations of DAAC, the Department of Civil Engineering						
	(1)	To consider the application, UG Internship Programme (C-25-UIP) regarding CO, CO-PO Mapping for (a) CE-402 Industrial Internship (w.e.f. Academic Year 2023-24) (b) CE-405 Summer Training. (Resolution no. 49.7 of the 49 th meeting of the DAAC held on 12/10/2022).					
	(2)	To consider and adopt a resolution about increasing the allotted seats to Department of Civil Engineering from 116 to 176. (Resolution no. 49.8 of the 49 th meeting of the DAAC held on 12/10/2022).					
	(3)	About the ‘discontinuation’ of a supervisor for Ph.D. Student Mr. Ananda Mitra (DS20CE030) enrolled in the FIR category (resolution no. 49.10 of the 49 th meeting of the DAAC held on 12/10/2022).	Academic Regulations for Doctoral Programme (July 2019) 10.3.1. (a)				
	<table><tr><th>Existing arrangement</th><th>Proposed arrangement</th></tr><tr><td>Dr. S.R. Suryawanshi Associate Professor, Department of Civil Engineering, SVNIT, Surat</td><td>Dr. Tamizharasi G. Assistant Professor, Department of Civil Engineering, SVNIT, Surat</td></tr></table>			Existing arrangement	Proposed arrangement	Dr. S.R. Suryawanshi Associate Professor, Department of Civil Engineering, SVNIT, Surat	Dr. Tamizharasi G. Assistant Professor, Department of Civil Engineering, SVNIT, Surat
Existing arrangement	Proposed arrangement						
Dr. S.R. Suryawanshi Associate Professor, Department of Civil Engineering, SVNIT, Surat	Dr. Tamizharasi G. Assistant Professor, Department of Civil Engineering, SVNIT, Surat						
	A consent letter of Dr. S.R. Suryawanshi and Dr. Tamizharasi G. were submitted with the DAAC recommendation.						

(4)	The requests of the following Students for the Ph.D. category conversion from the FIR to PEC. (Resolution no. 49.13 of the 49 th meeting of the DAAC held on 12/10/2022).			Academic Regulations for Doctoral Programme (July 2019) 11.3 (d)	
	Name of Student	Job Joining Date	Name of Supervisor / Co-supervisor		
	Arpit A. Parikh (D17AM012)	-	Dr. A.K. Desai		
	Shishir Dadhich (DS20CE020)	03/08/22	Dr. C.R. Patel & Dr. R.M. Tailor		
	Gaurav Raj (D20CE003)	26/09/22	Dr. Rakesh Kumar		
	Nandan H. Dawada (DS17CE010)	07/10/22	Dr. G.J. Joshi & Dr. S.S. Arkatkat		
	The students have completed 3 semester and also submitted 'No Objection Certificates from the respective Employers with the recommendations.				
(5)	To consider and resolution regarding the name "B. Plan" as query raised by Reso.1 of 51 st IAAC meeting held on 12/07/2021 regarding revisit the Nomenclature of B.Plan. Keep the same name as Bachelor of Planning in line with the degrees offered by School of Planning & Architecture. (Resolution no. 49.14 of the 49 th meeting of the DAAC held on 12/10/2022).				
(6)	To consider and approve the change in course name along with course code for subject having backlog students. (Resolution no. 49.15 of the 49 th meeting of the DAAC held on 12/10/2022).				
(7)	To consider the recommendation of the DAAC for Dr. Ankesh Kumar as Co-supervisor of three research Scholars of the Department of Civil Engineering (Resolution no. 51.1 of the 51 st meeting of the DAAC held on 27/12/2022). Dr. Ankesh Kumar joining to IIT Palakkad in 1 st week of January 2023.			Academic Regulations for Doctoral Programme (July 2019) 10.4 (a)	
	Students' Name	Reg. No.	Existing Supervisor (s)		Proposed Supervisor(s)
	Ms. Kanchan S Patil (PEC)	D21CE021	Dr. Ankesh Kumar		Dr. J.T. Chavda Dr. Ankesh Kumar
	Ms. Geetanjali Lohar (FIR)	D20CE024	Dr. Ankesh Kumar Dr. Nishant Roy, BITS, Pilani		HOD, DoCE (Administrative Supervisor) Dr. Ankesh Kumar Dr. Nishant Roy, BITS, Pilani
	Mr. Chappidi Srinivas (FIR)	D20CE023	Dr. Ankesh Kumar Dr. Jogender singh, DoCHE, SVNIT		HOD, DoCE (Administrative Supervisor) Dr. Ankesh Kumar Dr. Jogender singh, DoCHE, SVNIT
	The students are working on highly specialised area and they are in advanced stage of PhD and about to give Pre-synopsis.				
(8)	A request of Mr. Suraj Bhosle (DS17AM010), working under the supervision of Dr. A.K. Desai, for the category conversion from the FIR to PEC (resolution no. 51.2 of the 51 st meeting of the DAAC held on 27/12/2022). DAAC approved the same as per Academic Regulations for Doctoral Programmes July – 2019 [11.3 (d)]. The candidate has submitted 'No Objection Certificate' from Employer. He has joined the CQRA Pvt. Ltd on 14/10/22 as Structural Design Engineer. He has submitted Synopsis on 16/09/2022.			Academic Regulations for Doctoral Programme (July 2019) 11.3 (d)	
(9)	About 'discontinuation' of a co-supervisor for Ph.D. Student Mr. Rahul Chaudhary (D21CE005) enrolled in the FIR category (resolution no. 51.5 of the 51 st meeting of the DAAC held on 27/12/2022).			Academic Regulations for Doctoral	

		<table><tr><th>Existing arrangement</th><th>Proposed arrangement</th></tr><tr><td>1. Dr. Vishisht Bhaiya Assistant Professor, Department of Civil Engineering, SVNIT, Surat 2. Dr. Sumit Khare, Assistant Professor, Department of Mechanical Engineering, SVNIT, Surat</td><td>Dr. Vishisht Bhaiya Assistant Professor, Department of Civil Engineering, SVNIT, Surat</td></tr></table>	Existing arrangement	Proposed arrangement	1. Dr. Vishisht Bhaiya Assistant Professor, Department of Civil Engineering, SVNIT, Surat 2. Dr. Sumit Khare, Assistant Professor, Department of Mechanical Engineering, SVNIT, Surat	Dr. Vishisht Bhaiya Assistant Professor, Department of Civil Engineering, SVNIT, Surat	Programme (July 2019) 10.3.1. (a)
Existing arrangement	Proposed arrangement						
1. Dr. Vishisht Bhaiya Assistant Professor, Department of Civil Engineering, SVNIT, Surat 2. Dr. Sumit Khare, Assistant Professor, Department of Mechanical Engineering, SVNIT, Surat	Dr. Vishisht Bhaiya Assistant Professor, Department of Civil Engineering, SVNIT, Surat						
	A consent letter of Dr. Sumit Khare is submitted with the DAAC recommendation.						
Reso. 8	<p>For sub item 1, CO-PO mapping is approved.</p> <p>For sub item 2, year-wise increase in intake at various levels (UG/PG/PhD) during 2023-24 to 2027-28 was prepared and submitted vide letter No: a/Cs/2022-23/867 dtd: 5/01/2023 Annexure 8.2.1 and for 2028-29 to 2032-33 Annexure 8.2.2, increase in the intake vide no. Acad/577 dated 9/1/2023 in reference to the Ministry of Education Email Subject: Increasing students' intake in IITs/NITs/IIITs dated Jan 3, 2023. In this view, the additional increase in the intake of Civil Engineering from 116 to 176 is taken care of.</p> <p>Sub item 3, approved as per Academic Regulation 10.3.1. (a).</p> <p>Sub item 4, approved as per Academic Regulation 11.3 (d).</p> <p>Sub Item 5, the proposal for starting B.Plan. is discussed and approved. It is resolved to forward it to the Senate for further approval. The B.Plan. program will be started by the Department of Civil Engineering.</p> <p>Sub Item 6, for the backlog students, the mapping of the subjects is done and it is approved.</p> <p>Sub item 7, approved as per Academic Regulation 10.4 (a).</p> <p>Sub item 8, approved as per Academic Regulation 11.3 (d).</p> <p>Sub item 9, approved as per Academic Regulation 10.3.1. (a).</p>						
Item 9	To consider the recommendations of DAAC, Department of Electrical Engineering						
	<p>To discuss and adopt resolutions about 'the proposed revised curricula and PEOs, Pos and PSOs of the 'Two' M. Tech. Programmes of the Department of Electrical Engineering.</p> <p>The DAAC (Department of Electrical Engineering) recommended the revised curricula and PEOs, POs and PSOs of the following M Tech specializations for the consideration of the IAAC: Power Electronics & Electrical Drives and Power Systems (Resolution no. 1, 2, 3, & 4 of the 64th meeting of the DAAC held on 22/11/2022).</p> <p>This revision is made following resolution 7 of the 51st meeting of the Senate that discusses the credit range and structural refinements etc.</p> <p><a href="https://www.svnit.ac.in/Data/minutes/senate/51<sup>st</sup>%20Minutes.pdf">https://www.svnit.ac.in/Data/minutes/senate/51st%20Minutes.pdf</p>						
Reso. 9	<p>Head of the Department is advised to modify the PEOs, POs, and PSOs of the 'Two' M. Tech. Programmes of the Department of Electrical Engineering. The syllabus of these M.Tech. programs are approved. The head of the Department presented the PSOs of B.Tech. Electrical Engineering program is also approved. It is resolved to forward the same for senate approval.</p>						
Item 10	To consider the recommendations of DAAC, Department of Mechanical Engineering.						
	(1)	A request of Mr. Pawar Rahul Baban (D18ME014), working under the supervision of Dr R.V. Rao, for the category conversion from the FIR to PEC (resolution no. 67.2 of the 67 th meeting of the DAAC held on 24/1/2023). DAAC approved the	Academic Regulations for Doctoral				

	same as per Academic Regulations for Doctoral Programmes July - 2019 [11.5 (b)]. The requisite 'No Objection Certificate' from Employer is submitted with the recommendation. He has joined the Dr. D.Y. Patil Institute of Technology on 9/12/11 as Asst. Professor.	Programme (July 2019) 11.3 (d)				
(2)	A request of Mr. Mayank Shah (DS17ME004), working under the supervision of Dr. R.D. Shah, for the category conversion from the FIR to PEC w.e.f. 1/1/2023. (Resolution no. 67.3 of the 67 th meeting of the DAAC held on 24/1/2023). The requisite 'No Objection Certificate' from Employer is submitted with the recommendation. He has joined the Velankani Information Systems Ltd. (delivered 9 th RPS on 26/12/2022).	Academic Regulations for Doctoral Programme (July 2019) 11.3 (d)				
(3)	<div>An 'addition' of a co-supervisor for Ph.D. Student Sunil Jatoliya (D21ME014) enrolled in the FIR category, application received on 6/12/2022 is within 3rd semester. (Resolution no. 67.4 of the 67th meeting of the DAAC held on 24/1/2023).</div> <table><tr><th>Existing arrangement</th><th>Proposed arrangement</th></tr><tr><td>1. Dr. Nikhil A. Baraiya Assistant Professor, Department of Mechanical Engg., SVNIT, Surat</td><td>1. Dr. Nikhil A. Baraiya Assistant Professor, Department of Mechanical Engg., SVNIT, Surat 2. Dr. R.D. Shah Associate Professor, Department of Mechanical Engg., SVNIT, Surat</td></tr></table> <div>A consent letter of Dr. R.D. Shah is submitted with the DAAC recommendation. DAAC approved the same as per Academic Regulations for Doctoral Programmes July – 2019 [10.6 (d)].</div>	Existing arrangement	Proposed arrangement	1. Dr. Nikhil A. Baraiya Assistant Professor, Department of Mechanical Engg., SVNIT, Surat	1. Dr. Nikhil A. Baraiya Assistant Professor, Department of Mechanical Engg., SVNIT, Surat 2. Dr. R.D. Shah Associate Professor, Department of Mechanical Engg., SVNIT, Surat	Academic Regulations for Doctoral Programme (July 2019) 10.3.1. (a)
Existing arrangement	Proposed arrangement					
1. Dr. Nikhil A. Baraiya Assistant Professor, Department of Mechanical Engg., SVNIT, Surat	1. Dr. Nikhil A. Baraiya Assistant Professor, Department of Mechanical Engg., SVNIT, Surat 2. Dr. R.D. Shah Associate Professor, Department of Mechanical Engg., SVNIT, Surat					
(4)	To discuss replacing the One credit course of “Seminar (ME307)” in the 5 th Semester of existing B.Tech. curriculum by a Two credits “Project Preliminary” in the 6 th Semester. This will allow a complete two semester project for the B.Tech. students and also reduce the imbalance of total credits between 5 th and 6 th semesters (both will be of total 25 credits henceforth). The revised curriculum is attached in Annexure 1 along with course code (ME308) for “Project Preliminary”, implementation from July 2023. (Resolution no. 67.7.2 of the 67 th meeting of the DAAC held on 24/1/2023).					
Reso. 10	Sub item 1, approved as per Academic Regulation 11.3 (d). Sub item 2, approved as per Academic Regulation 11.3 (d). Sub item 3, approved as per Academic Regulation 10.3.1. (a). Sub item 4, approved as per DAAC recommendation.					
Item 11	To consider the recommendations of DAAC, Department of Mathematics & Humanities					
(1)	A request of Mr. Mithun Vasava (DS19EN0014), working under the supervision of Dr. Urvashi Kaushal, for the category conversion from the FIR to PEC w.e.f. 1/1/2023. (Resolution no. 46.1(d) of the 46 th meeting of the DAAC held on 15/02/2023). The requisite 'No Objection Certificate' from Employer is submitted with the recommendation. He has joined as Adhayapak Sahayak at Shri Natvarsinhji Art & Science College on 10/1/23.	Academic Regulations for Doctoral Programme (July 2019) 11.3 (d)				
(2)	A request of Mr. Jaydip Chauhan (DS22MA002), working under the supervision of Dr. Ranjan Kumar Jana, for the category conversion from the FIR to FRS. The Scholars have qualified the NET for the CSIR-UGC Junior Research Fellowship in	Academic Regulations for				

	June 2022. (Resolution no. 46.1(e) of the 46 th meeting of the DAAC held on 15/02/2023).	Doctoral Programme (July 2019) 11.3 (d)
Reso. 11	Sub item 1, approved as per Academic Regulation 11.3 (d). Sub item 2, approved as per Academic Regulation 11.3 (d).	
Item 12	To consider the recommendations of DAAC, Department of Chemistry regarding the request of Ms. Nilam Gamit (DS18CY005), working under the supervision of Dr. Bharat Dholakiya, for the category conversion from the FIR to PEC (resolution no. 2 of the 109 th meeting of the DAAC held on 27/1/2023). The requisite 'No Objection Certificate' from Employer is submitted with the recommendation. She has joined the Smt. Shantaben Motilal Panchal Science College as a Adhyapak Sahayak on 22/12/22. (Application dated: 12/1/23).	Academic Regulations for Doctoral Programme (July 2019) 11.3 (d)
Reso. 12	Approved as per Academic Regulation 11.3 (d)	
	<i>Any other Item by Chair</i>	
Item 13	To consider a proposal to start four-year undergraduate program B. Tech. in Electronics and VLSI Engineering proposed to be commenced from the academic Year 2023-24 under the Department of Electronics & Communication Engineering. (Resolution 1 of the 74 th meeting of the DAAC held on 27/2/2023).	
Reso. 13	The curriculum structure of the first two years of B.Tech. Electronics and VLSI Engineering is presented by the HoD of the Department of Electronics Engineering as per the NEP curriculum structure format. It is approved for further approval by the Senate. Currently, the intake in B.Tech. Electronics and Communication Engineering is 180. The B.Tech. Electronics and VLSI Engineering program will be started without any additional intake, that is, from academic year 2023-24 the intake of B.Tech. Electronics and Communication Engineering will be 120 and the intake of B.Tech. Electronics and VLSI Engineering will be 60. The curriculum of B.Tech. Electronics and VLSI Engineering is attached in Annexure 1.2 .	
Item 14	To consider a proposal to start five-year Integrated M.Sc. in Physics programme and in the four-year B. Tech. in Engineering Physics programme as per NEP requirement (Resolution 2 of the 40 th meeting of the DAAC held on 18/02/2023).	
Reso. 14	The head of the department is advised to explore the placement scenarios of the currently running five years integrated M.Sc. in Physics program which will help in starting the new program B.Tech. in Engineering Physics. It is resolved to consider the item for starting the program from the academic year 2024-25.	
Item 15	To consider a proposal to start the programme "Bachelor of Planning" proposed to be commenced from the academic Year 2023-24 under the Department of Civil Engineering. (Resolution no. 41.8 of the 41 st meeting of the DAAC held on 2/06/2021)	
Reso. 15	The curriculum structure of B.Plan. is presented by the HoD of the Department of Civil Engineering as per the NEP curriculum structure format. It is approved for further approval by the Senate. The curriculum of B.Plan. is attached in Annexure 1.2 .	
Item 16	To consider a proposal to start the Centre of Excellence in the domain of (1) Robotics and Cyber-Physical Systems and (2) Computational and Linguistic Intelligence.	
Reso. 16	The proposal is discussed for setting up the centre of excellence in the domain of emerging areas Robotics, Industry automation, the Internet of Things, Sensor Networks, Actuators, Process Automation, Security and Privacy, Cyber system, and their applications in different domains. The departments which are working in these domains	

	will operate this centre and the executive body of faculty members consisting of Two professors, Two Associate professors, and Four Assistant professors will be setup for the respective centre. Similarly, in the domain of Computational intelligence for exploring different algorithmic development using Artificial Intelligence and Machine Learning with applications in various domains of Physics, Chemistry, Chemical, Computer Science, and Humanities will be taken care by the centre of excellence in Computational and Linguistic Intelligence. Linguistic intelligence for natural language processing/understanding, machine translation specifically for Indian languages along with behaviour analysis, cognitive science, and social network analysis will be taken care by this centre.	
Item 17	To discuss and adopt the year-wise increase in intake at various levels (UG/PG/PhD) by 2035 in reference to the Ministry of Education Email Subject: Increasing students' intake in IITs/NITs/IITs dated Jan 3, 2023 in the view of implementing National Education Policy 2020.	
Reso. 17	Year-wise increase in intake at various levels (UG/PG/PhD) during 2023-24 to 2027-28 was prepared and submitted vide letter No: a/Cs/2022-23/867 dtd: 5/01/2023 Annexure 8.2.1 and for 2028-29 to 2032-33 Annexure 8.2.2 , increase in the intake vide no. Acad/577 dated 9/1/2023 in reference to the Ministry of Education Email Subject: Increasing students' intake in IITs/NITs/IITs dated Jan 3, 2023. It is approved and forwarded to the Senate and BoG for approval and necessary notification.	

M/Anur
3/3/23
Member-Secretary, IAAC

3/3/23
3/3/23
Director

Annexure 1.1

(1) Multiple Entry and Multiple Exit

Multiple Entry -

- (a) for the students who are admitted in the first year of program in SVNIT (own students) based on the entry requirement criteria 1 and 2
- (b) for the students – Inter NIT - maximum # students at any year and Screening test as suggested in entry criteria 3

Exit-Equivalence for awarding a degree	Entry-Requirement
UG - Certificate in Program Name (or name suggested by the department)	1. 12 th and JEE
UG - Diploma in Program Name (or name suggested by the department)	1. 12th + JEE 2. 1st year of UG or 2. UG-Certificate and 1 year of Vocational or Professional experience 3. Screening based on Branch Specific Prerequisite (written test)
B.Voc. / B.Sc. in Program Name (or name suggested by the department)	1. 12th + JEE 2. 2 nd year of UG or 2. UG-Diploma and 1 year of Vocational or Professional experience 3. Screening based on Branch Specific Prerequisite (written test)
B.Tech. in Program Name	1. 12th + JEE 2. 3 rd year of UG or 2. B.Voc. and 1 year of Vocational or Professional experience 3. Screening based on Branch Specific Prerequisite (written test)
M.Voc. in Program Name (or name suggested by the department)	1. CCMT
M.Tech. in Program Name	1. CCMT 2. 1 st year of M.Tech. or 2. M.Voc. and 1 year of Vocational or Professional experience

(2) Curriculum Structure

Subject code ##nXX: ## - identifies Department, n UG year, XX – sequence number

Year	Subjects	Proposed / Recommended subject	Code	Scheme L-T-P	Credits (Min.)	Notional hours (Approx.)
1 st of UG (I and II Semet	First Semester					
	CBCS-1	Mandatory Core	##nXX	3-0-2 / 3-1-0	4	85 / 70
	CBCS-2	Other Engineering				
	CBCS-3	Science				
	CBCS-4	Mathematics				

	CBCS-5	Humanities				
	Vocational / Professional	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	600
	Second Semester					
	CBCS-1	Mandatory Core				
	CBCS-2	Other Engineering				
	CBCS-3	Other Engineering / Science				
	CBCS-4	Mathematics				
	CBCS-5	Humanities				
	Vocational / Professional	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	600
					40	1200
2nd of UG	Third Semester					
	CBCS-1	Mandatory Core				
	CBCS-2	Mandatory Core				
	CBCS-3	Optional Core				
	CBCS-4	Elective				
	CBCS-5	Other Engineering / Mathematics / Humanities				
					20	600
	Fourth Semester					
	CBCS-1	Mandatory Core				
	CBCS-2	Mandatory Core				
	CBCS-3	Optional Core				
	CBCS-4	Elective				
	CBCS-5	Other Engineering / Humanities				
	Vocational / Professional	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	600
					40	1200
3rd of UG	Fifth Semester					
	CBCS-1	Mandatory Core				
	CBCS-2	Mandatory Core				
	CBCS-3	Optional Core				
	CBCS-4	Elective				
	CBCS-5	Elective (Specialization - Minor / Honor)				
					20	600
	Sixth Semester					
	CBCS-1	Mandatory Core				
	CBCS-2	Mandatory Core				
	CBCS-3	Optional Core				
	CBCS-4	Elective				

	CBCS-5	Elective (Specialization - Minor / Honor)				
	Vocational / Professional	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	600
					40	1200
4th of UG	Seventh Semester					
	CBCS-1	Mandatory Core				
	CBCS-2	Elective				
	CBCS-3	Elective				
	CBCS-4	Elective (Specialization – Minor / Honor)				
	CBCS-5	Elective (Specialization – Minor / Honor)				
					20	600
	Eighth Semester					
	Vocational / Professional	Mandatory	VSXXX /PSXXX	0-0-40	20	800 (20 x 40)
					20	800
					40	1200

Sardar Vallabhbhai National Institute of Technology (SVNIT) Surat

Note for new programs announcement through BoG notification

- For admission through JoSAA and CCMT for the academic year 2023-24

Subject: Regarding the new graduate / undergraduate programs and departments, action plan, faculty, and infrastructure requirement - submitting to the Senate and Finance Committee of the Institute through IAAC in reference to resolution no. 61.17.2 of 61st meeting of BoG held on 27th September, 2022.

SVNIT Surat is planning to set up various departments and offer new programs at undergraduate and graduate levels by this newly setup and existing departments to cater to the need for cutting-edge technology and implementing National Educational Policy 2020 which ensures the holistic development of the student, providing the opportunity to explore the different fields and acquiring the knowledge across the higher educational institutes. The proposed programs are in the emerging thrust areas: Information Security and Privacy, Data Science, Artificial Intelligence, Business Administration, Machine Design, VLSI, Planning, and Computing. Admission for UG and Dual Degree programs will be through JoSAA and PG programs through CCMT. The admission criteria and reservation policy are as followed by JoSAA and CCMT for respective courses. and The Fee policy will be the same as that of current ongoing UG and PG programs in SVNIT.

The departments planned for being set up and the courses offered by this newly setup and existing departments are as follows:

Table 1: New Programs offered by Existing Departments

Sr. No.	Existing Department	Program offered at Post Graduate level	Student Intake	Remarks
1	Computer Science and Engineering	M.Tech. Computer Science and Engineering with Specialization in Information Security and Privacy	30	Scheme and Syllabus are approved in the meeting of 56 th IAAC held on May 19, 2022 And Approved in the meeting of 54 th Senate held on June 8, 2022 for further approval of finance and BoG
2	Computer Science and Engineering	M.Tech. Computer Science and Engineering with Specialization in Data Science	30	Scheme and Syllabus are approved in the meeting of 56 th IAAC held on May 19, 2022 And Approved in the meeting of 54 th Senate held on June 8, 2022 for further approval of finance and BoG
3	Mechanical Engineering	M.Tech. Mechanical Engineering with Specialization in Machine Design	30	Scheme and Syllabus are approved in the meeting of 56 th IAAC held on May 19, 2022 And Approved in the meeting of 54 th Senate held on June 8, 2022 for further approval of finance and BoG

Annexure 2.1

Table 2: Set up of New Departments and New Programs offered by these departments:

Sr. No.	Set up New Department	Program offered at Post Graduate level	Program offered at Undergraduate level	Student Intake	Remarks
4	Department of Artificial Intelligence		B.Tech. in Artificial Intelligence	120	New Department proposal was approved in the meeting of 55 th Senate held on Sept 20, 2022 Scheme and Syllabus are approved in the meeting of 61 st IAAC held on Feb 28, 2023
5	Department of Management Studies	Master of Business Administration		60	Scheme and Syllabus are approved in the meeting of 61 st IAAC held on Feb 28, 2023 Scheme and Syllabus are approved in the meeting of 61 st IAAC held on Feb 28, 2023
6	Department of Management Studies	Five years integrated program Master of Business Administration		60	Bifurcating the Department of Mathematics and Humanities as resolved in the meeting of 57 th IAAC held on July 22, 2022 and Approved in the meeting of 55 th Senate held on Sept 20, 2022 for further approval of finance and BoG Scheme and Syllabus are approved in the meeting of 61 st IAAC held on Feb 28, 2023

Table 1.1: New Programs offered by Existing Departments

Sr. No.	Existing Department	Program offered at Under Graduate level	Student Intake	Remarks
7	Department of Civil Engineering	B. Plan.	60	Scheme and Syllabus are approved in the meeting of 61 st IAAC held on Feb 28, 2023
8	Department of Electronics Engineering	B.Tech. Electronics and VLSI Engineering	60	Scheme and Syllabus are approved in the meeting of 61 st IAAC held on Feb 28, 2023

Annexure 2.1

The action plan, faculty, and infrastructure requirement for the above 6 programs:

Table 3: Academic year wise Faculty and Infrastructure requirement

Sr. No.	Program Name	Student Intake	Academic year	Faculty required	Infrastructure requirement
1	M.Tech. Computer Science and Engineering with Specialization in Information Security and Privacy	30	2023-24	2 (0:0:2)	Existing labs and classrooms in the department will be shared.
			2024-25	4 (1:1:2) (SFR 15:1)	1 Computing lab Faculty cabins in a new upcoming administrative building can be shared.
2	M.Tech. Computer Science and Engineering with Specialization in Data Science	30	2023-24	2 (0:0:2)	Existing labs and classrooms in the department will be shared.
			2024-25	4 (1:1:2) (SFR 15:1)	1 Computing lab Faculty cabins in a new upcoming administrative building can be shared.
3	M.Tech. Mechanical Engineering with Specialization in Machine Design	30	2023-24	2 (0:0:2)	Existing labs and classrooms in the department will be shared.
			2024-25	4 (1:1:2) (SFR 15:1)	1 design lab Faculty cabins in a new upcoming administrative building can be shared.
4	B.Tech. Artificial Intelligence	120	2023-24	6 (0:0:6)	New Classroom complex available For the first two years existing lab facility of the mathematics department will be shared. Later 2 Computing labs will be developed.
			2024-25	12 (1:1:10)	
			2025-26	18 (1:3:14)	
			2026-27	24 (2:4:18) (SFR 20:1)	
5	Master of Business Administration (MBA)	60	2023-24	3 (0:0:3)	Existing labs and classrooms in the department will be shared.
			2024-25	6=1:1:4 (SFR 20:1)	1 Computing lab Faculty cabins in a new upcoming administrative building can be shared.
6	Five years integrated program Master of Business Administration	60	2023-24	3 (0:0:3)	New Classroom complex available For the first two years existing lab facility of the mathematics department will be shared. Later 2 Computing labs will be developed.
			2024-25	6 (1:1:4)	
			2025-26	9 (1:2:6)	
			2026-27	12 (1:3:8)	
			2027-28	15=2:3:10 (SFR	

Annexure 2.1

				20:1)	
7	Bachelor of Planning (B. Plan.)	60	2023-24	3 (0:0:3)	New Classroom complex available For the first two years existing lab facility of the Civil Engineering Department will be shared. Later 1 lab will be developed.
			2024-25	6 (1:1:4)	
			2025-26	9 (1:2:6)	
			2026-27	12=1:2:9 (SFR 20:1)	
8	B.Tech. Electronics and VLSI Engineering	60	2023-24	3 (0:0:3)	New Classroom complex available For the first two years existing lab facility of the Electronics Engineering Department will be shared. Later 2 labs will be developed.
			2024-25	6 (1:1:4)	
			2025-26	9 (1:2:6)	
			2026-27	12=1:2:9 (SFR 20:1)	

Sr. No.	Program Name	Academic Year	Number of Students	Tuition Fee Collection	Faculty Salary	Scholarship from MoE
1	M.Tech. Computer Science and Engineering with Specialization in Information Security and Privacy	2023-24	30	21,00,000 (= 35,000 x 30 x 2)	32,40,000 (1,35,000 x 2 x 12)	45,00,000 (12,500 x 30 x 12)
		2024-25	60	42,00,000	96,60,000 [(2,75,000 + 2,60,000 + 2,70,000) x 12]	90,00,000
2	M.Tech. Computer Science and Engineering with Specialization in Data Science	2023-24	30	21,00,000	32,40,000	45,00,000
		2024-25	60	42,00,000	96,60,000	90,00,000
3	M.Tech. Mechanical Engineering with Specialization in Machine Design	2023-24	30	21,00,000	32,40,000	45,00,000
		2024-25	60	42,00,000	96,60,000	90,00,000
4	B.Tech. in Artificial Intelligence	2023-24	120	1,50,00,000	97,20,000 (1,35,000 x 6 x 12)	-
		2024-25	240	3,00,00,000	2,26,20,000 [(2,75,000 + 2,60,000 + 1,35,000 x 10) x 12]	-

Annexure 2.1

		2025-26	360	4,50,00,000	3,53,40,000 [(2,75,000 + 2,60,000 x 3 + 1,35,000 x 14) x 12]	-
		2026-27	480	6,00,00,000	4,82,40,000 [(2,75,000 x 2 + 2,60,000 x 4 + 1,35,000 x 18) x 12]	-
5	Master of Business Administration (MBA)	2023-24	60	42,00,000 (= 35,000 x 60 x 2)	48,60,000 (1,35,000 x 3 x 12)	90,00,000 (12,500 x 60 x 12)
		2024-25	120	84,00,000	1,29,00,000 [(2,75,000 + 2,60,000 + 5,40,000) x 12]	1,80,00,000
6	Five years integrated program Master of Business Administration	2023-24	60	75,00,000 (= 62,500 x 60 x 2)	48,60,000 (1,35,000 x 3 x 12)	-
		2024-25	120	1,50,00,000	1,29,00,000 [(2,75,000 + 2,60,000 + 1,35,000 x 4) x 12]	-
		2025-26	180	2,25,00,000	1,92,60,000 [(2,75,000 + 2,60,000 x 2 + 1,35,000 x 6) x 12]	-
		2026-27	240	3,00,00,000	2,56,20,000 [(2,75,000 + 2,60,000 x 3 + 1,35,000 x 8) x 12]	-
		2027-28	300	3,75,00,000	3,21,60,000 [(2,75,000 x 2 + 2,60,000 x 3 + 1,35,000 x 10) x 12]	-
7	B. Plan.	2023-24	60	75,00,000	48,60,000 (1,35,000 x	-

Annexure 2.1

					3 x 12)	
		2024-25	120	1,50,00,000	1,29,00,000 [(2,75,000 + 2,60,000 + 1,35,000 x 4) x 12]	-
		2025-26	180	2,25,00,000	1,92,60,000 [(2,75,000 + 2,60,000 x 2 + 1,35,000 x 6) x 12]	-
		2026-27	240	3,00,00,000	2,41,20,000 [(2,75,000 x 1 + 2,60,000 x 2 + 1,35,000 x 9) x 12]	-
8	B.Tech. in Electronics and VLSI Engineerin2	2023-24	60	75,00,000	48,60,000 (1,35,000 x 3 x 12)	-
		2024-25	120	1,50,00,000	1,29,00,000 [(2,75,000 + 2,60,000 + 1,35,000 x 4) x 12]	-
		2025-26	180	2,25,00,000	1,92,60,000 [(2,75,000 + 2,60,000 x 2 + 1,35,000 x 6) x 12]	-
		2026-27	240	3,00,00,000	2,41,20,000 [(2,75,000 x 1 + 2,60,000 x 2 + 1,35,000 x 9) x 12]	-

For the above programs starting from Academic Year 2023-24:

Faculty and Lab development for new programs: 9 Labs Rs. 4.50 crores per annum over the next 5 years. (50,00,000 x 9 x 5 = 22.5 crores over five years)

M. Tech.(CSE) with Specialization in Information Security and Privacy

M. Tech.
Computer Science and Engineering
(CSE)
with Specialization in
Information Security and Privacy

M. Tech.(CSE) with Specialization in Information Security and Privacy

At end of the programme graduation, the students of the program will have:

PSO1: ability to apply advanced engineering knowledge of computer science & engineering and design skill with analytical mind set for solving the real problems through research and development for catering the need of industry.

PSO2: ability to investigate innovative, sustainable and environmental adaptive solution for the society to meet the desired need using standard engineering practice.

At the end of studying the program, a student is expected to

1. engage in critical thinking and develop an ability to independently carry out research /investigation and development work to solve practical problems.
2. develop an ability to communicate effectively, develop an ability to interact with the engineering fraternity and with society at large.
3. be able to write and present technical reports on complex engineering activities.
4. be able to demonstrate a degree of mastery over the area as per the specialization of the program (Information Security). The mastery should be at a level higher than the requirements in the appropriate bachelor program.
5. demonstrate higher level of professional skills to tackle multidisciplinary and complex problems related to information security.
6. be able to differentiate between the Security Software and Software Security and understand the importance of building-in the security in a software being developed from scratch.
7. have adequate technologies and theoretical background of software development that will help them to pursue a career in software industries in general and information security background in particular.
8. be educated to stick on professional ethics and able to solve societal needs and developments.

M. Tech. Computer Science and Engineering (CSE) with Specialization in Information Security and Privacy

Semester I

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1.	Core-1 Mathematical Foundations of Computer Science	CSEIS601	4	3	1	0	100	25	0	125
2.	Core-2 Design and Analysis of Algorithms	CSEIS603	4	3	0	2	100	0	50	150
3.	Core-3 Principles of Information Security and Privacy	CSEIS605	4	3	0	2	100	0	50	150
4.	Core-4 Modern Cryptography	CSEIS607	4	3	1	0	100	25	0	125
5.	Research Methodology in CSE	CSEIS609	4	4	0	0	100	0	0	100
6.	Core Elective-1	CSEISXXX	4	3	0	2	100	0	50	150
Total			24	19	2	6	600	50	150	800
Total Contact Hours per Week			27							

Semester II

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1.	Core-5 Information Theory and Coding	CSEIS602	4	3	1	0	100	25	0	125
2.	Core-6 Network Security	CSEIS604	4	3	0	2	100	0	50	150
3.	Core Elective-2	CSEISXXX	4	3	0	2	100	0	50	150
4.	Core Elective-3	CSEISXXX	4	3	0	2	100	0	50	150
5.	Core Elective-4	CSEISXXX	4	3	0	2	100	0	50	150
6.	Institute Elective-1	CSEISXXX	4	3	0	2	100	0	50	150
Total			24	18	1	10	600	25	250	875
Total Contact Hours per Week			29							

M. Tech.(CSE) with Specialization in Information Security and Privacy

Semester III

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1.	Dissertation Preliminaries [#]	CSEIS701	8	0	0	16	0	0	250	250
	Total		8	0	0	16	100	0	250	250
	Total Contact Hours per week			16						

Internal-100, External-150

Semester IV

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1.	Dissertation [#]	CSEIS700	12	0	0	24	0	0	400	400
	Total		12	0	0	24	0	0	400	400
	Total Contact Hours per week			24						

Internal-160, External-240

M. Tech.(CSE) with Specialization in Information Security and Privacy

Code	Subject Name
CSEIS601	Core-1 Mathematical Foundations of Computer Science
CSEIS603	Core-2 Design and Analysis of Algorithms
CSEIS605	Core-3 Principles of Information Security and Privacy
CSEIS607	Core-4 Modern Cryptography
CSEIS609	Research Methodology in CSE
CSEIS602	Core-5 Information Theory and Coding
CSEIS604	Core-6 Network Security
Core Elective 1 to 4	
CSEIS611	Cloud Computing and Big Data Analytics
CSEIS613	Machine Learning
CSEIS615	Cyber Physical Systems
CSEIS617	Digital Forensics
CSEIS619	Social Networks
CSEIS621	Defensible Security Architectures
CSEIS606	Machine Learning for Security
CSEIS608	Information Security Risks and Management
CSEIS612	Mobile Forensics and Security
CSEIS614	Software Security
CSEIS616	Security in the Resource Constrained Environments
CSEIS618	Security and Privacy in Social Networks
CSEIS624	Blockchain Fundamentals and Use Cases
CSEIS626	Adversarial Machine Learning
CSEIS628	Cyber Laws
CSEIS632	Mobile Security and Penetration Testing
CSEIS634	Secure Software Engineering
CSEIS636	Foundations of Privacy Engineering
CSEIS638	Bitcoin and Cryptocurrency Technologies
CSEIS642	Advanced Cryptography
CSEIS644	Security Protocols
CSEIS646	Hardware Security

M. Tech.(CSE) with Specialization in Information Security and Privacy

Institute Elective 1	
CSEIS692	Ethical Hacking and Penetration Testing

M. Tech.
Computer Science and Engineering
(CSE)
with Specialization in
Data Science

At end of the programme graduation, the students of the program will have:

PSO1: ability to apply advanced engineering knowledge of computer science & engineering and design skill with analytical mind set for solving the real problems through research and development for catering the need of industry.

PSO2: ability to investigate innovative, sustainable and environmental adaptive solution for the society to meet the desired need using standard engineering practice.

At the end of studying the program, a student is expected to

1. engage in critical thinking and develop an ability to independently carry out research /investigation and development work to solve practical problems.
2. develop an ability to communicate effectively, develop an ability to interact with the engineering fraternity and with society at large.
3. be able to write and present technical reports on complex engineering activities.
4. be able to demonstrate a degree of mastery over the area as per the specialization of the program (Data Science). The mastery should be at a level higher than the requirements in the appropriate bachelor program.
5. demonstrate higher level of professional skills to tackle multidisciplinary and complex problems related to variety real time applications data.
6. be able to distinguish and analyze the data for the applications for the machine-cognition tasks.
7. have adequate technologies and theoretical background of software development that will help them to pursue a career in software industries in general and data science background in particular.
8. be educated to stick on professional ethics and able to solve societal needs and developments.

M. Tech. - I Computer Science and Engineering (CSE) with Specialization in Data Science

Semester I

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1.	Core-1 Mathematical Foundations of Computer Science	CSEDS601	4	3	1	0	100	25	0	125
2.	Core-2 Design and Analysis of Algorithms	CSEDS603	4	3	0	2	100	0	50	150
3.	Core-3 Machine Learning	CSEDS605	4	3	0	2	100	0	50	150
4.	Core-4 Foundations of Data Science	CSEDS607	4	3	0	2	100	0	50	150
5.	Core Elective-1	CSEDSXXX	4	3	0	2	100	0	50	150
6.	Research Methodology in CSE	CSEDS609	4	4	0	0	100	0	0	100
	Total		23	19	1	8	600	25	200	825
	Total Contact Hours per week			28						

Semester II

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1.	Core-5 Advanced Statistical Techniques	CSEDS602	4	3	1	0	100	25	0	125
2.	Core-6 Scalable Systems for Data Science	CSEDS604	4	3	0	2	100	0	50	150
3.	Core Elective-2	CSEDSXXX	4	3	0	2	100	0	50	150
4.	Core Elective-3	CSEDSXXX	4	3	0	2	100	0	50	150
5.	Core Elective-4	CSEDSXXX	4	3	0	2	100	0	50	150
6.	Institute Elective	CSEDSXXX	4	3	0	2	100	0	50	150
	Total		24	18	1	10	600	25	250	875
	Total Contact Hours per week			29						

M. Tech. Computer Science and Engineering (CSE) with Specialization in Data Science

Semester III

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1.	Dissertation Preliminaries [#]	CSEDS701	8	0	0	16	0	0	250	250
	Total		8	0	0	16	0	0	250	250
	Total Contact Hours per week			16						

[#] Internal-100, External-150

Semester IV

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1.	Dissertation [#]	CSEDS700	12	0	0	24	0	0	400	400
	Total		12	0	0	24	0	0	400	400
	Total Contact Hours per week			24						

[#] Internal-160, External-240

M. Tech. Computer Science and Engineering (CSE) with Specialization in Data Science

Core Elective 1	
CSEDS611	Information Retrieval
CSEDS613	Advanced Database Management Systems
CSEDS615	Embedded Systems Design
CSEDS617	Computer Vision and Image Processing
CSEDS619	Speech and Audio Processing
CSEDS621	High Performance Computing
Core Elective 2, Core Elective 3, and Core Elective 4	
CSEDS606	Artificial Intelligence
CSEDS608	Data Mining and Data Warehousing
CSEDS610	Natural Language Processing
CSEDS612	Data Science for Software Engineering
CSEDS614	Big Data Analytics and Large-Scale Computing
CSEDS616	Cyber Physical Systems
CSEDS618	Machine Learning for Security
Institute Elective	
CSEDS620	Business Data Analytics
CSEDS622	Social Networks
CSEDS624	Cyber Laws

DEPARTMENT OF MECHANICAL ENGINEERING

M. Tech. (Machine Design)



SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY
Ichchhanath, Dumas Road,
Surat- 395007, Gujarat, India

Vision and Mission of Institute

Vision Statement

To be one of the leading technical institutes disseminating globally acceptable education, effective industrial training and relevant research output.

Mission Statement

To be a globally accepted center of excellence in technical education catalyzing absorption, innovation, diffusion and transfer of high technologies resulting in enhanced quality for all the stakeholders.

Vision and Mission of Department

Vision Statement

Perceive to be a globally accepted centre of quality technical education based on innovation and academic excellence.

Mission Statement

Strives to disseminate technical knowledge to its undergraduate, post graduate and research scholars to meet intellectual, ethical and career challenges for sustainable growth of humanity, nation and global community.

Program Educational Objectives (PEOs)

Postgraduate program in Machine Design plays a vital role in the field of Mechanical Engineering discipline from the fundamentals to applications in industrial practices. The importance of this program is in understanding, design, development and implementation of mechanical systems.

PEO1: Knowledge: Impart broad technical knowledge in mechanical engineering discipline with research attitude, problem solving techniques and hands-on skill.

PEO2: Career: Provide successful career with professional ethics and responsibilities as a leading or participating role in mechanical engineering, R & D organization, academia and other fields or to pursue higher studies.

PEO3: Learning: Understand the concepts and design of machine components, analyze and simulate mechanical components and systems.

**Proposed M. Tech. Machine Design
Program Structure**

Semester I

C- Core, CE - Core Elective,

L-Theory, T-Tutorial, P-Practical

Sr. No.	Course Title	Code	Credit	Teaching Scheme	Examination Scheme			Total
				L-T-P	L	T	P	
1	C-1 Advanced Machine Design	ME XXX	4	4-0-0	100	0	0	100
2	C-2 Lubrication and Rotor Dynamics	ME XXX	4	4-0-0	100	0	0	100
3	C-3 Advanced Mechanical Vibrations	ME XXX	4	3-1-0	100	25	0	125
4	CE -1	ME XXX	3	3-0-0	100	0	0	100
5	CE -2	ME XXX	3	3-0-0	100	0	0	100
6	Laboratory Practice	ME XXX	2	0-0-4	00	0	100	100
7	Software Practice-1		2	0-0-4	00	0	100	100
	Total		22	18-0-8	500	25	200	725
	Total Contact Hours per week			26				

Core Electives -1	<ol style="list-style-type: none"> 1. Advanced Computational Methods 2. Experimental Stress Analysis 3. Industrial Robotics 4. Biomechanics 5. Dynamics of Mechanical Systems
Core Electives -2	<ol style="list-style-type: none"> 1. Analytical Dynamics 2. Geometric Modelling & Simulation 3. Fracture Mechanics 4. Optimization Techniques 5. Computer Aided Machine Design

Semester II

C- Core, CE - Core Elective,

L-Theory, T-Tutorial, P-Practical

Sr. No.	Course	Code	Credit	Teaching Scheme	Examination Scheme			Total
				L-T-P	L	T	P	
1	C-4 Finite Element Methods	ME XXX	4	4-0-0	100	0	0	100
2	C-5 Advanced Mechanics of Solids	ME XXX	4	3-1-0	100	25	0	125
3	CE-3	ME XXX	3	3-0-0	100	0	0	100
4	CE-4	ME XXX	3	3-0-0	100	0	0	100
5	Institute Elective	ME XXX	3	3-0-0	100	0	0	100
6	Project Lab	ME XXX	2	0-0-4	0	0	100	100
7	Software Practice-2	ME XXX	2	0-0-4	0	0	100	100
	Total		21	17-0-8	500	25	200	725
	Total contact hours per week			25				

Core Electives -3	<ol style="list-style-type: none"> Design of Pressure Vessels Vehicle Dynamics Advanced Mechanisms Design Design and Analysis of Machine Tools Computer Aided Analysis of Mechanical Systems
Core Electives -4	<ol style="list-style-type: none"> Tribology in Machine Design Mechanics of Composites Quality Engineering and Management Automatic Control Systems Smart Materials, Structures and Devices
Institute Electives	<ol style="list-style-type: none"> Mechatronics Product Design & Development Artificial Intelligence Data Analytics

PROPOSED List of Elective Courses			
Stream-Specific Elective Courses			
Sr. No.	Code	Title of Course	Credit
1.	ME XXX	Advanced Computational Methods	3
2.	ME XXX	Experimental Stress Analysis	3
3.	ME XXX	Industrial Robotics	3
4.	ME XXX	Biomechanics	3
5.	ME XXX	Dynamics of Mechanical Systems	3
6.	ME XXX	Analytical Dynamics	3
7.	ME XXX	Geometric Modelling & Simulation	3
8.	ME XXX	Fracture Mechanics	3
9.	ME XXX	Optimization Techniques	3
10.	ME XXX	Computer Aided Machine Design	3
11.	ME XXX	Design of Pressure Vessels	3
12.	ME XXX	Vehicle Dynamics	3
13.	ME XXX	Advanced Mechanisms Design	3
14.	ME XXX	Design and Analysis of Machine Tools	3
15.	ME XXX	Computer Aided Analysis of Mechanical Systems	3
16.	ME XXX	Tribology in Machine Design	3
17.	ME XXX	Mechanics of Composites	3
18.	ME XXX	Quality Engineering and Management	3
19.	ME XXX	Automatic Control Systems	3
20.	ME XXX	Smart Materials, Structures and Devices	3
Note: Students can opt any 03 choices in Semester-I & II.			
Institute Electives			
Sr. No.	Code	Title of Course	Credit
1.	ME XXX	Mechatronics	3
2.	ME XXX	Product Design & Development	3
3.	ME XXX	Artificial Intelligence	3
4.	ME XXX	Data Analytics	3

Semester III

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1	Dissertation Preliminaries	ME XXX	8	0	0	16	0	0	400	400
2	Seminar	ME XXX	2	0	0	4	0	0	100	100
	Total		10	0	0	20	0	0	500	500
	Total contact hours per week			20						

Semester IV

Sr. No.	Course	Code	Credit	Teaching Scheme			Examination Scheme			Total
				L	T	P	L	T	P	
1	Dissertation	ME XXX	12	0	0	24	0	0	600	600

Department of Computer Science and Engineering
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B. Tech. Artificial Intelligence

Year	Subjects	Proposed / Recommended subject	Code	Scheme s	Credits	Notional hours
1 st of UG (I and II Seme ster)	First Semester					
	CBCS-1	Mandatory Core Introduction to Computer Science	CSAI101	3-1-0	4	70
	CBCS-2	Mandatory Core Introduction to Programming	CSAI103	3-0-2	4	85
	CBCS-3	Other Engineering Digital Electronics & Logic Design	EC103	3-0-2	4	85
	CBCS-4	Other Engineering Basics of Electrical Engineering	EE105	3-0-2	4	85
	CBCS-5	Mathematics Fundamentals of Engineering	MA115	3-1-0	4	70
	Vocational	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	555
	Second Semester					
	CBCS-1	Mandatory Core Data Structures	CSAI102	3-1-2	5	100
	CBCS-2	Mandatory Core Web Programming and Python	CSAI104	3-0-2	4	85
	CBCS-3	Other Engineering Energy & Environmental Engineering	EE105	3-0-2	4	85
	CBCS-4	Mathematics Linear Algebra and Statics	MA116	3-1-0	4	70
	CBCS-5	Humanities English & Professional Communication	HU110	3-0-0	3	65
	Vocational	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)

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					20	565
					40	1120
Exit Level 1: Certificate in Programming Skills						
2 nd of UG	Third Semester					
	CBCS-1	Mandatory Core Computer Organization	CSAI201	3-1-0	4	70
	CBCS-2	Mandatory Core Design and Analysis of Algorithms	CSAI203	3-1-2	5	100
	CBCS-3	Optional Core Database Management Systems	CSAI205	3-1-2	5	100
	CBCS-4	Elective Object Oriented Programming	CSAI207	3-0-2	4	85
	CBCS-5	Mathematics Discrete Mathematics	CSAI209	3-1-0	3	70
					22	
	Fourth Semester					
	CBCS-1	Mandatory Core Artificial Intelligence	CSAI202	3-1-2	5	100
	CBCS-2	Mandatory Core Operating Systems	CSAI204	3-1-2	5	100
	CBCS-3	Mandatory Core Automata and Formal Languages	CSAI206	3-1-0	4	70
	CBCS-4	Optional Core Computer Networks	CSAI208	3-0-2	4	85
	CBCS-5	Elective Microprocessor and Interfacing Techniques	CSAI210	3-0-2	4	85
	Vocational	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	
					40	
Exit Level 2: Diploma in Computer Science and Engineering(AI)						
3 rd of UG	Fifth Semester					
	CBCS-1	Mandatory Core Machine Learning	CSAI301	3-1-2	5	100

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	CBCS-2	Mandatory Core Data Science	CSAI303	3-1-2	5	100
	CBCS-3	Optional Core Information Security and Cryptography	CSAI305	3-0-2	4	85
	CBCS-4	Elective	CSAI 3AA	3-0-0	3	60
	CBCS-5	Elective (Specialization – Honor / Minor) Cyber Physical System (CS XXX) (H) Data Structure and Algo/Introduction to Data Science (M)	CSAI3BB	3-0-0	3	60
					20	
	Sixth Semester					
	CBCS-1	Mandatory Core Deep Learning	CSAI302	3-1-2	5	100
	CBCS-2	Mandatory Core Cloud Computing,	CSAI304	3-1-2	5	100
	CBCS-3	Optional Core Reinforcement Learning	CSAI306	3-0-2	4	85
4 th of UG	CBCS-4	Elective	CSAI3CC	3-0-0	3	60
	CBCS-5	Elective (Specialization – Honor / Minor) IoT and Edge Computing (H) Introduction to Artificial Intelligence (M)	CSAI3DD	3-0-0	3	60
	Vocational	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	
					40	
	Exit Level 3: B.Sc. in Artificial Intelligence					
	Seventh Semester					
	CBCS-1	Mandatory Core Intelligent Multiagent and Expert Systems	CSAI401	3-0-2	4	85
	CBCS-2	Elective	CSAI4AA	3-0-2	4	85
	CBCS-3	Elective	CSAI4BB	3-0-2	4	85
	CBCS-4	Elective (Specialization – Honor	CSAI4CC	3-0-2	4	85

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		/ Minor) Drone and Autonomous Systems (H) Introduction to Machine Learning (M)				
	CBCS-5	Elective (Specialization – Honor / Minor) IoT and Sensor data Analytics (H) Applied Machine Learning (M)	CSAI4DD	3-0-2	4	85
					20	
	Eighth Semester					
	Vocational / Professional	Mandatory	VSXXX / PSXXX	0-0-40	20	800 (20 x 40)
					20	800
					40	
Exit Level 4: B.Tech. in Artificial Intelligence						

Elective (Specialization – AI Honors in IoT)	Elective (Specialization – Minor in AI)
Cyber Physical System (CSAI332) IoT and Edge Computing (CSAI344) Drone and Autonomous Systems (CSAI441) IoT and Sensor data Analytics (CSAI447)	Data Structure and Algo (CSAI345)/ Intro to Data Science (CSAI347) Introduction to AI (CSAI346) Introduction to ML (CSAI449) Applied Machine Learning (CSAI451)

Core Elective-1 (CSAI3AA/CSAI3BB):

1	Probabilistic Graphical Model (CSAI321)	8	Optimization Techniques (CSAI333)
2	Data Science (CSAI323)	9	Big data analytics and Large-Scale Computing (CSAI335)
3	Computer Graphics (CSAI325)	10	Computational Intelligence (CSAI337)
4	System Software (CSAI327)	11	Human Computer Interaction (CSAI338)
5	Information Retrieval (CSAI329)	12	Multimedia System & Applications (CSAI341)
6	Cyber Physical Systems (CSAI331)	13	Unmanned Aerial Vehicles Information System (CSAI343)
7	Data Structure and Algo (CSAI345)	14	Introduction to Data Science (CSAI347)

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Core Elective-2 (CSAI3CC) / 3 (CSAI3DD):

1	Natural Language Processing (CSAI322)	7	Speech and Audio Processing (CSAI334)
2	Computer Vision and Image Processing (CSAI324)	8	Reinforcement Learning (CSAI336)
3	High Performance Computing (CSAI326)	9	Data Visualization (CSAI338)
4	Social Network Analysis (CSAI328)	10	Machine Learning for Security (CSAI340)
5	Digital Forensics (CSAI330)	11	Service Oriented Architectures (CSAI342)
6	Unmanned Aerial Vehicles Forensics (CSAI332)	12	IoT and Edge Computing (CSAI344)
		13	Introduction to AI (CSAI346)

Core Elective-4 (CSAI4AA)/ 5 (CSAI4BB) / 6 (CSAI4CC):

1	AI in Market and Finance (CSAI421)	10	Innovation, Incubation and Entrepreneurship (HU410)
2	AI for Bio-Medical Image Processing (CSAI423)	11	Research Methodology (CS421)
3	Cloud Computing for AI and ML (CSAI425)	12	Bioinformatics (CSAI439)
4	Surveillance Video Analysis (CSAI427)	13	Data Mining (CSAI441)
5	Adversarial Machine Learning (CSAI429)	14	Drone and Automation Systems (CSAI443)
6	Secure Cloud Computing (CSAI431)	15	Animation and Rendering (CSAI445)
7	IoT & Sensor Data Analytics (CSAI433)	16	System Analysis and Simulation (CSAI447)
8	Robotics Process Automation (CSAI435)	17	Introduction to ML (CSAI449)
	Advanced Database Management System (CSAI437)	18	Applied Machine Learning (CSAI451)



Department of Management (DOM)

Integrated Program in Management (IPM)

Dual Degree (B.Tech +MBA)

Duration (4+1)

First Degree: Bachelor in Technology (Discipline Name)

Second Degree (MBA)

Programme Objective

A 5-year integrated B.Tech and MBA program aims to provide students with unique technical and managerial skills, preparing them for leadership roles in various industries. The program is designed to give students a comprehensive understanding of technical and organizational concepts, helping them develop a holistic business operations perspective.

Some of the key objectives of this program include the following:

- Providing a solid foundation in engineering principles and practices and exposure to core business and management concepts.
- Critical thinking, problem-solving, and decision-making skills are essential for success in technical and managerial roles.

- We are fostering creativity, innovation, and entrepreneurship among students, enabling them to identify and pursue new opportunities in the business world.
- Enhancing communication, leadership, and interpersonal skills is critical for effective teamwork and collaboration.
- We prepare students for various engineering, technology, finance, consulting, and entrepreneurship career opportunities.

Overall, a 5-year integrated B.Tech and MBA program aims to provide students with a unique educational experience that combines technical expertise with business acumen, equipping them with the skills and knowledge needed to succeed in a rapidly evolving business landscape.

Brief Programme Structure

Overall, the 5-year integrated B.Tech and MBA program provides students with a well-rounded education that combines technical and business skills, preparing them for leadership roles in today's complex and dynamic global marketplace.

The structure of a 5-year integrated B.Tech and MBA program is divided into Ten semesters. First Four years (8 semesters) & 5th Year (2 semesters)

Years 1-2: Foundation courses in Science and Engineering: The program's first two years are typically focused on providing students with a strong foundation in the sciences and engineering. Courses may include mathematics, physics, chemistry, computer science, and introductory engineering courses such as mechanics, thermodynamics, and electrical circuits.

Years 3-4: Core Engineering Courses

Year 4: Besides core engineering, students will begin their MBA coursework. This may include foundational courses such as accounting, finance, marketing, human resources, operations management, and business strategy & Analytics.

End of the 4th-year, the student will go on a two-month Internship program.

Year 5: The program's final year will focus on MBA core courses and electives (per the regular MBA second program structure). These courses will provide students with a deeper understanding of business concepts and practices and the opportunity to specialize in a particular area of Analytics.

In addition to coursework, the program may also include opportunities for internships, industry projects, and other hands-on learning activities. These experiences will provide students with real-world exposure to the engineering and business industries, allowing them to apply what they have learned in the classroom to practical situations.

Overall, the structure of a 5-year integrated B.Tech and MBA program is designed to provide students with a well-rounded education in engineering and management, with a focus on practical skills, leadership, and innovation.

Program Structure (Details)

First Degree (B.Tech)

First 3-year: Courses from Discipline Area

4th Year

1st Semester (4th Year) {*along with B.Tech Courses*}

SN	Course	Credit	Hours
1	Marketing Management	2	28
2	Operations Management	2	28
3	Managerial Economics	2	28
4	Accounting & Financial Management	2	28
5	Organizational Behaviour & HRM	2	28

*Total Number of Credits: 10 (from Management
Discipline)*

2nd Semester (4th Year) {*along with B.Tech Project Work*}

SN	Course	Credit	Hours
1	Business Considerations for Edge Computing & Transformation (Analytics Core)	2	28
2	Econometrics (Management Core)	2	28
3	Strategic Management for leadership & People Analytics - (Management Core)	2	28
4	Business Analytics (Analytics Core)	2	28
5	Data Analytics (Analytic Core)	2	28
6	Fintech (Management Core)	2	28

Total Number of Credits: 12 ((from Management Discipline)

Two-month Internship Programme (after 1st Year)

Total Credit: 5

5th Year: 1st Semester (Merge with Regular MBA
(second-year 3rd semester) Students)

SN	Course	Credit	Hours
1	Advanced Business Analytics(Analytics Core)	2	28
2	Big Data and Cloud Computing for Managers (Analytics Core)	2	28
3	Marketing Analytics (Management Core)	2	28
4	Supply Chain Analytics (Management Core)	2	28
5	Financial Analytics	2	28
6	HR Analytics (Management Core)	2	28
7	Social Media Analytics (Analytics Core)	2	28
8	Capstone(Management Core)	2	28
9	Electives	2	28
10	Elective	2	28
11	Elective	2	
12	Elective	2	

Out of four electives, any two electives

Total Number of Credits: 20

5th Year: 2nd Semester (Merge with Regular MBA
second year 4th semester) Students)

SN	Course	Credit	Hours
1	Predictive Analytics (Analytics Core)	1	28
2	Cyber & Crime Analytics	1	28
3	Deep Learning for Managers (Analytics Core)	1	28
4	Project Management for Business Analytics - (Analytics Core)	1	28
5	Industry 4.0 (Analytics Core)	1	28
6	Growth Strategies for Digital Bazar & Management - (Management Core)	1	28
7	Managing Digital Transformation (Management Core)	1	28
8	Integrative Project and Dissertation	1	28
9	Elective	1	28
10	Elective	1	28
11	Elective	1	28
12	Elective	1	28

Out of four electives, any two electives

Total Number of Credits: 20

Elective Baskets

HR	Finance	Operations& Supply Chain	Marketing & Strategy	IT & Digital Tranformation
Legal Aspects of Business	Mergers and Acquisitions	Service Operation Management	Consumer Behaviour	Health Care Analytics
Recruitment & Selection: Analytical Prospective	Corporate Finance	Operations Strategy	Sales and Distribution Management	IT Strategy Management
Strategies and Skills for Successful Negotiation	Investment Analysis & Portfolio Management	Business Games & Decision Analysis	Digital Marketing & Innovation	Business Application of Blockchain
Management Lessons from Ramayan and Geeta	Management of Financial Institutions & Services	International Logistics Management	Pricing Strategy & Rural Marketing	Emerging Trends in Business
Performance and Compensation Management	Financial Modeling	Green Business Management	International Business & Strategy for Analytics	System Thinking and Business Dynamics
Personal Values, Goals and Career Options	Advanced Business Analytics for Finance	Circular Economy and Green Supply chain management	Neuromarketing and Consumer Neuroscience	Cyber Management
Making and Transformation of a CEO	Quantitative Applications in Finance	Advanced Mathematical Modeling for Managerial Decisions	International Business Strategy	AI in Management
Business and Society	Futures Options & Risk Management	supply Chain Thinking: Value Creation and Adaptation	International Marketing and Analytics	IT Consultancy Management
Personal Competencies for International HRM	International Finance	QUALITY MANAGEMENT AND SIX SIGMA	Entrepreneur & Knowledge Management	Gamification for Managers

[illegible]

Sardar Vallabhbhai National Institute of Technology, Surat



Proposal
of

Master of Business Administration
(Business Analytics & Digital Transformation)

Duration: 2 years (including an eight week internship)
(Including implementation of NEP in the proposed structure
of programme)

Department of Management Studies (DOMS)*

**vide resolution no. 5 of 55th SENATE meeting held on 20/09/22 and 61st
BOG meeting held on 27.09.2022*

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1. About the Department

Just now, Management section is the part of Department of Mathematics and Humanities. The Department of Mathematics & Humanities has been serving with distinction the needs of training young students for undertaking advanced teaching in institutes of technology and research in organizations involved in scientific work at national and international levels. The alumni of this department occupied high positions in teaching and research spread over India and abroad.

As per the resolution of the **55th Senate meeting held on 20.09.2022** and **61st BOG meeting held on 27.09.2022**, the **Department of Mathematics and Humanities will be demerged in to three departments:** Department of Mathematics, Department of Humanities & Social Sciences, and Department of Management Studies.

The Management section has existing following faculty members:

Management			Total
Professor	Associate Professor	Assistant Professor	
NIL	01	01	02

The number of faculty members having extensive expertise in the various fields is as under:

Expertise fields	Specialization	No. of faculty
Management	Techno innovation to Techno entrepreneurship through Techno Business incubation, Marketing Entrepreneurship Strategy, Supply Chain Management (SCM), General Management, Time Series Analysis, Econometrics, Quantitative Analysis, Stock Market, Portfolio Management, Financial Management	02

At present, the Management section of the department has been offering:

- Ph.D. programme in Management
- Various courses at B.Tech. and M.Sc. level related to Economics and Business Management, Innovation Incubation and Entrepreneurship, Marketing Management and Personnel Management

2. About the programme

As per the resolution of the 55th Senate meeting held on 20.09.2022 and 61st BOG meeting held on 27.09.2022, the Department of Mathematics and Humanities will be demerged in to three departments: Department of Mathematics, Department of Humanities & Social Sciences, and Department of Management Studies.

It is planned that the Department of Management Studies will offer a two / five years MBA program / Integrated MBA Program. As per the resolution, detailed proposal and action plan,

course curriculum, number of students, faculty requirements and infrastructure /space / fund requirement be placed after recommendation from Senate & Finance Committee of the Institute.

Hence, with reference to above, the following task force committee was constituted for the MBA program at SVNIT, Surat:

- (1) Prof. Ravi Shankar, Professor, Department of Management Studies, IIT Delhi – Chairman
- (2) Prof. Shailesh Gandhi, Former Dean – Programs and Chair – PGP, IIM Ahmedabad
- (3) Prof. Omkarprasad S Vaidya, Professor, IIM Lucknow
- (4) Dr. Praveen Ranjan Srivastava, Associate Professor, IIM, Rohtak
- (5) Dr.Hemantkumar P. Bulsara, Associate Professor of Management, DOMH, SVNIT, Surat
- (6) Dr. Ravi Kant, Associate Professor, DME, SVNIT, Surat
- (7) Dr.Dilip A. Patel, Associate Professor, DCE, SVNIT, Surat
- (8) Dr. Vaishali S. Dhingra, Assistant Professor of Management, DOMH, SVNIT, Surat

Three online meetings of the committee were conducted and committee has proposed the program structure.

Programme Structure

MBA in Business Analytics & Digital Transformation program is divided into four semesters; first year (2 semesters) and Second year (2 semesters).

The first-year coursework comprises core courses that explain the fundamental concepts of management and analytics across functional areas. All the courses in the first year are mandatory. The first-year coursework is followed by a summer internship during which students are required to work on an industry project with an organization for 8 weeks.

The second-year coursework comprises mandatory analytics, management, dissertation, and elective courses.

The dissertation component is in the last Semester, along with the other courses. A dissertation intended to help students find their areas of interest and apply their knowledge in defining and solving a real industry /research problem.

Programme Objectives

The objective of an MBA in Business Analytics & Digital Transformation program is to equip students with a deep understanding of how technology and data can be used to drive business success. The program aims to develop a strong foundation in business and management concepts while providing students with the skills to analyze complex data and make data-driven decisions. The program aims to help students develop the following:

Analytical and problem-solving skills: Students will learn to collect, analyse, and interpret data to identify problems and develop solutions to improve business performance.

Technical proficiency: Students will learn about various analytics tools and technologies, such as machine learning, data mining, and predictive modelling, and how to apply them to real-world business problems.

Digital Transformation: Students will be trained to develop and implement digital strategies for businesses that integrate digital technologies into all business operations.

Leadership and communication skills: Students will learn to effectively communicate data-driven insights and recommendations to senior management and other stakeholders to drive organizational change.

Global business perspective: Students will gain a global perspective on business analytics and digital transformation and be prepared to work in a global business environment.

In addition, the program aims to develop student's leadership skills and ability to communicate complex data and insights to different stakeholders effectively. By the end of the program, students should be able to lead digital transformation initiatives, make data-driven decisions, and effectively manage teams in a rapidly evolving digital landscape.

Overall, the program aims to prepare students to be business analytics and digital transformation leaders and make strategic decisions that drive organizational success.

Admission Criteria

Graduation in any field with 60 % (6.5 CGPA) (55 % for SC/ST (6.0 CGPA)) and following criteria:

SN	Name of the Criteria	Weightage
1.	CAT / GMAT / GRE / XAT / CMAT / SVNIT's own test	45%
2.	Personal Interview*	30%
3.	Academic**	10%
4.	Gender Diversity***	05%
5.	Experience****	10%
Total		100%

*Personal Interview consists of 5 parameters (Academic Knowledge, Communication, Leadership Skills, Socio Awareness & Attitude)

(Details sheet will develop once criteria approved by the committee)

**(Graduation (5%), Class 12 (3%), Class 10 (2%))

*** (Gender Diversity)

Criteria	Male	Female
Engineer	0%(Weightage) Note: if from a national institute, then 10% maybe	05%(Weightage)
Non-Engineer	05%(Weightage)	05%(Weightage)

Experience****

If the candidate has worked >12 months, then 10 % Weightage

If >6 Months, then 06 % Weightage

If >1 and <6, then 04% Weightage

Else zero % Weightage

Intake: 60 (can be increased to 120 in future)

Timeline

1	Registration (July)
2.	Orientation (August first week) for five days
3.	Semester 1 st (August-December)
4.	Semester 2 nd (January –May)
4	June –July (Internship)
5.	Registration Second year and Orientation (August first week)
6.	Semester 3 rd (August-December)
7.	Placement week (November 1 st week)
8.	Semester 4 th (January –May)
9.	Convocation

3. Programme Curriculum Structure

L: Lecture hours; T: Tutorial hours; P: Laboratory/ Practical hours; C: Credits

Year	Course	Code	Schemes	Credits	Notional hours	Evaluation Scheme				Exit-Equivalence for awarding a degree	Entry-Requirement
						Th.	Tu.	P	Total		
1 st SEM	Business Statistics and Business Research Methods (Analytics Core)	MB 101	2-0-0	2	28	100	00	00	100	--	Graduation in any field with 60 % (6.5 CGPA) (55 % for SC/ST (6.0 CGPA)) and must have cleared CAT / GMAT / GRE / XAT / CMAT / SVNIT's own test.
	Marketing Management (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Operations Management (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Managerial Economics (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Accounting and Financial Management (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Organizational Behaviour and Human Resource Management (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Business Computing (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Descriptive Analytics and Data visualization	MB XXX	2-0-0	2	28	100	00	00	100		
	Foundation of Business Analytics and Digital	MB 114	2-0-0	2	28	100	00	00	100		

	Transformation										
	Business Communication	MB XXX	2-0-0	2	28	100	00	00	100		
		TOTAL		20	280						
2 nd SEM	Decision Support System	MB XXX	2-0-0	2	28	100	00	00	100		
	Business Considerations for Edge Computing &Transformation (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Econometrics (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Strategic Management for leadership & People Analytics (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Business Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Perspective Analytics & Optimization (Management Core)	MBXXX	2-0-0	2	28	100	00	00	100		
	Data Analytics (Analytic Core)	MBXXX	2-0-0	2	28	100	00	00	100		
	System Analysis and Design(Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Fintech (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Project on Descriptive Analytics (Placement point of view)	MB XXX	2-0-0	2	28	100	00	00	100		
		TOTAL		20	280						

8 WEEK INTER NSHIP				5	70						
										PG Diploma in Management and Business Analytics	
3 rd SEM	Advanced Business Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100	--	<p>1. Graduation in any field with 60 % (6.5 CGPA) (55 % for SC/ST (6.0 CGPA)) and must have cleared CAT / GMAT / GRE / XAT / CMAT / SVNIT's own test.</p> <p>2. Candidate must have acquired 50% marks in the courses equivalent to the mandatory courses (Business Statistics and Business Research Methods, Marketing Management, Managerial Economics, Operations Management,</p>
	Big Data and Cloud Computing (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Marketing Analytics	MB XXX	2-0-0	2	28	100	00	00	100		
	Supply Chain Analytics	MB XXX	2-0-0	2	28	100	00	00	100		
	Financial Analytics	MB XXX	2-0-0	2	28	100	00	00	100		
	Human Resource (HR) Analytics (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Social Media Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Capstone (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Elective	MB XXX	2-0-0	2	28	100	00	00	100		
	Elective	MB XXX	2-0-0	2	28	100	00	00	100		
	TOTAL			20	280						

											Accounting and financial management, Organizational Behaviour and Human Resource Management, Business Computing, Descriptive Analytics and Data visualization, Foundation of Business Analytics and Digital Transformation, Business Communication, Decision support system, Business Considerations for Edge Computing & Transformation, Econometrics, Strategic Management for leadership & People Analytics, Business Analytics, Perspective Analytics & Optimization, Data Analytics, System Analysis and Design, Fintech, Project on Descriptive Analytics) and PG Diploma in Management and
--	--	--	--	--	--	--	--	--	--	--	--

											Business Analytics 3. Candidate should clear the screening test with 50 % along with above mentioned courses as given in the criteria 2. 4. Candidate must clear personal interview for final selection
4 th SEM	Predictive Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Cyber and Crime Analytics	MB XXX	2-0-0	2	28	100	00	00	100		
	Deep Learning for Managers (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Project Management for Business Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Industry 4.0 (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Growth Strategies for Digital Bazar and Management	MB XXX	2-0-0	2	28	100	00	00	100		

	(Management Core)										
	Managing Digital Transformation (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Integrative Project and Dissertation	MB XXX	2-0-0	2	28	100	00	00	100		
	Elective	MB XXX	2-0-0	2	28	100	00	00	100		
	Elective	MB XXX	2-0-0	2	28	100	00	00	100		
		TOTAL		20	280						
		Total of program		85	1190						
										MBA in Business Analytics and Digital Transformation Degree	

Pool of the subject:

○ Core Subjects Discipline-wise (Management)	○ Core Subjects Discipline-wise (Analytics)
Marketing Management Operations Management Managerial Economics Accounting and Financial Management Organizational Behaviour and HRM Descriptive Analytics and Data visualization Foundation of Business Analytics and Digital Transformation Business Communication Decision Support System Econometrics Strategic Management for leadership & People Perspective Analytics & Optimization Fintech Marketing Analytics Supply Chain Analytics Financial Analytics HR Analytics Cyber and Crime Analytics Growth Strategies for Digital Bazar and Management Managing Digital Transformation Integrative Project and Dissertation Capstone	Business Statistics and Business Research Methods Business Computing Business Considerations for Edge Computing & Transformation Business Analytics Data Analytics System Analysis and Design Project on Descriptive Analytics Advanced Business Analytics Big Data and Cloud Computing Social Media Analytics Predictive Analytics Deep Learning for Managers Project Management for Business Analytics Industry 4.0

Elective Specialisation Courses

HR	Finance	Operations & Supply Chain	Marketing & Strategy	IT & Digital Transformation
Legal Aspects of Business	Mergers and Acquisitions	Service Operation Management	Consumer Behaviour	Health Care Analytics
Recruitment & Selection: Analytical Prospective	Corporate Finance	Operations Strategy	Sales and Distribution Management	IT Strategy Management
Strategies and Skills for Successful Negotiation	Investment Analysis & Portfolio Management	Business Games & Decision Analysis	Digital Marketing & Innovation	Business Application of Blockchain
Management Lessons from Ramayan and Geeta	Management of Financial Institutions & Services	International Logistics Management	Pricing Strategy & Rural Marketing	Emerging Trends in Business
Performance and Compensation Management	Financial Modeling	Green Business Management	International Business & Strategy for Analytics	System Thinking and Business Dynamics
Personal Values, Goals and Career Options	Advanced Business Analytics for	Circular Economy and Green Supply chain management	Neuromarketing and Consumer Neuroscience	Cyber Management

	Finance			
Making and Transformation of a CEO	Quantitative Applications in Finance	Advanced Mathematical Modeling for Managerial Decisions	International Business Strategy	AI in Management
Business and Society	Futures Options & Risk Management	supply Chain Thinking: Value Creation and Adaptation	International Marketing and Analytics	IT Consultancy Management
Personal Competencies for International HRM	International Finance	QUALITY MANAGEMENT AND SIX SIGMA	Innovation and Entrepreneurship	Gamification for Managers
Leadership: Vision, Meaning and Reality	Current Economic Scenario; Indian Economy and Policy Matters for Business	Health Care Operations Management	Advertising and Sales Promotion Management	Managing Digital Transformation: Strategies, Leadership and Technology
Strategic Planning and Human Resource Management	Strategic Perspectives in Banking	Sustainable Supply Chain Management	Managing Luxury Business	Open AI: Innovation Management
		Safety Management	Advanced Marketing Research	

4. Space Requirement

Required Infrastructure if intake is 60		Total
Class Rooms	2 main classrooms of 60 capacity 5 Elective specialization classrooms capacity of 30 to 40 (All the class rooms should be ICT enabled) (All classes should be having semi-circular stepped seating arrangement)	07
Laboratory	2 Computer Labs [01 for MBA students (60 Capacity) and 1 for PhD scholars (60 capacity)]	02
Faculty Cabin	15	15
Store Room	02	02
Seminar Hall	02 of 60 capacity	02
Conference Hall	01 of 150 capacity	01
Meeting Room	01 of 30 to 40 capacity	01
Rooms for PhD scholars	06 of 10 capacity	06
Provision for future Research Laboratory for projects etc	03	03
HOD office	01	01
Department office	01	01
Exam center	01	01
Departmental Library	01	01
Girls common room	01	01
Ladies common room (Faculty and Staff)	01	01
Pantry room for tea and refreshment	01	01
Sports room	01	01
Activity / Event room for students	01	01
Required Infrastructure if intake is 120 in future		Total
Class Rooms	4 main classrooms of 60 capacity 5 Elective specialization classrooms capacity of 40	09

	(All the class rooms should be ICT enabled) (All classes should be having semi-circular stepped seating arrangement)	
Laboratory	2 Computer Labs [01 for MBA students (60 Capacity) and 1 for PhD scholars (60 capacity)]	02
Faculty Cabin	25	25
Store Room	02	02
Seminar Hall	02 of 60 capacity	02
Conference Hall	01 of 150 capacity	01
Meeting Room	01 of 30 to 40 capacity	01
Rooms for PhD scholars	06 of 10 capacity	06
Provision for future Research Laboratory for projects etc	03	03
HOD office	01	01
Department office	01	01
Exam center	01	01
Departmental Library	01	01
Girls common room	01	01
Ladies common room (Faculty and Staff)	01	01
Pantry room for tea and refreshment	01	01
Sports room	01	01
Activity / Event room for students	01	01

Note: Estimation can be given by the Estate section for above

5. Hardware and Software

If intake is 60	
Item	Approximate cost (Rs.)
Computers [120 for 2 labs + 28 (1 for HOD office, 2 for department office, 20 for faculty members, 1 for meeting room, 1 for conference hall, 2 for seminar hall, 1 for departmental library) = 148]	148 x 100000 (including UPS) = 14800000
Lab development cost	500000
26 Printers [4 for 2 labs, 1 for HOD, 20 for faculty members, 1 for department office]	26 x 20000 = 520000
2 Photo copier for office	2 x 150000=300000
15 Projectors	15x50000=750000
Provision for software	1500000
Total	Rs.18370000

If intake is 120	
Item	Approximate cost (Rs.)
Computers [120 for 2 labs + 38 (1 for HOD office, 2 for department office, 30 for faculty members, 1 for meeting room, 1 for conference hall, 2 for seminar hall, 1 for departmental library) = 158]	158 x 100000 (including UPS) = 15800000
Lab development cost	500000
36 Printers [4 for 2 labs, 1 for HOD, 30 for faculty members, 1 for department office]	36 x 20000 = 720000
2 Photo copier for office	2 x 150000=300000
15 Projectors	15x50000=750000
Provision for software	1500000
Total	Rs.19570000

6.Faculty Requirements (Management)

MBA in Business Analytics and Digital Transformation with Intake of 60 : 120

Faculty requirement: 10 (As per 1: 12 ratio)

MBA in Business Analytics and Digital Transformation with Intake of 120 : 240

Faculty requirement: 20 (As per 1: 12 ratio)

The Management section has existing following faculty members:

Management			Total
Professor	Associate Professor	Assistant Professor	
NIL	01	01	02

Existing faculties	Requirement			Additional Requirement		
	Existing B.Tech. / M.Sc. Programme	Proposed Programme (Intake 60)	Proposed Programme (Intake 120)	Existing M.Sc. Programme	Proposed Programme (Intake 60)	Proposed Programme (Intake 120)
02	05	10	20	03	10	20

For faculty additional Cost as per ratio : 1:2:4

For Intake: 60

Designation	No	Scale	Approx Amount per month	Approx Amount per year
Assistant Professor	5	Pay level-12 101500	5 x (101500+38570 (DA 38%)+ 18270 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 841380	Rs. 841380X 12 = Rs. 10096560
Associate Professor	3	Pay Level 13A2 139600	3 x(139600+53048 (DA 38%)+ 25128 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 681336	Rs. 681336X 12 = Rs. 8176032
Professor	2	Pay Level 14A 159100	2 x(159100+60458 (DA 38%)+ 28638 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 516264	Rs. 516264X 12 = Rs. 6195168
			Total	Rs.2,44,67760

For Intake: 120

Designation	No	Scale	Scale	Approx Amount
Assistant Professor	11	Pay level-12 101500	11 x (101500+38570 (DA 38%)+ 18270 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 1851036	Rs. 1851036X 12 = Rs. 22212432
Associate Professor	6	Pay Level 13A2 139600	6x(139600+53048 (DA 38%)+ 25128 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 1362672	Rs. 22,77,120X 12 = Rs. 16352064
Professor	3	Pay Level 14A 159100	3x(159100+60458 (DA 38%)+ 28638 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 1806924	Rs. 1806924X12 = Rs. 21683088
			Total	Rs. 6,02,47,584

Faculty Specialization requirement:

Business Analytics and Digital Transformation, Business computing, Data Analytics, Big Data and Cloud computing, Management Accounting, Human Resource Management, Operation and Supply Chain Management, Marketing, Strategy, General Management, Time Series Analysis, Econometrics, Quantitative Analysis, Stock Market, Portfolio Management, Financial Management, Innovation and Entrepreneurship, etc.

7. Non Teaching Staff Requirements

Total Additional Requirement:				
Programme	Clerk (C)	Lab Technician (L)	Peon (P)	Total
MBA + B.Tech.+ M.Sc.	01	02	04	07

For Non Teaching additional Cost : For Intake 60 Or 120

Designation	Scale	Number	Approx Amount per month	Approx Amount per year
Clerk	21700	01	01 x (21700+8246(DA 38%)+ 3906 (18 % HRA) + (3600 + 3600*0.38) (TA)) = Rs.38,820	Rs. 38, 820 X 12 = Rs.4, 65, 840
Lab Technician	21700	02	02 x (21700+8246(DA 38%)+ 3906 (18 % HRA) + (3600 + 3600*0.38) (TA)) = Rs. 77, 640	Rs. 77, 640 X 12 = Rs.9, 31, 680
Peon	18000	04	04 x (18000+6840(DA 38%)+ 3240 (18 % HRA) + (1350 + 1350*0.38) (TA)) = Rs. 1,19,772	Rs. 1, 19,772 X 12 = Rs. 14, 37, 264
			Total	Rs. 28, 34, 784

8. Academic Resource Requirement

Item	Approximate Cost (Rs.)
Case study subscription for 2 years	1000000
Books	2500000
Miscellaneous	1000000
Total	4500000

9. Furniture Requirement

If intake is 60		
Item	Quantity	Approximate Cost (Rs.)
Benches	160	160x10000=1600000
Chairs with desk	270	270x7000=1890000
Computer cum office cum normal seating chairs	300	300x7000=2100000
Computer tables	145	145x10000=1450000
Faculty tables	20	20x20000=400000
Faculty chairs	3x20=60	60x10000=600000
Cupboards	50	50x8000=400000
Book shelf	40	40x7500=300000
Tables (Research scholars, Class rooms, seminar hall, department office, meeting room, conference room, departmental library, store room, exam centers etc.)	92	92x6500=598000
Total		Rs.7898000
If intake is 120		
Item	Quantity	Approximate Cost (Rs.)
Benches	180	180x10000=1800000
Chairs with desk	270	270x7000=1890000
Computer cum office cum normal seating chairs	300	300x7000=2100000
Computer tables	145	145x10000=1450000
Faculty tables	30	30x20000=600000
Faculty chairs	3x30=90	90x10000=900000
Cupboards	70	70x8000=560000
Book shelf	50	50x7500=375000
Tables (Research scholars, Class rooms, seminar hall, department office, meeting room, conference room, departmental library, store room, exam centers etc.)	92	92x6500=598000
Total		Rs. 10273000

10. Fees Structure

The following are the Charges and Expenses structure of the 2-year MBA of NIT Surat

The fee structure effective and fee payable by the new entrant students in the MBA batch shall be as under:

Sl. No.	Main	MBA (fee)			
1	Institute fee	1 st Semester	2 nd Semester	3 rd Semester	4 th Semester
2	Tuition Fee	45000	50000	55000	60000
3	Registration fee	10000	10000	10000	10000

Students will also be required to pay the Placement Support Charges, Alumni Membership/Support Charges & Refundable Deposits, Mess, campus charges etc., towards the following heads:

Particulars		MBA 1 st Year			MBA 2 nd Year		
SN	Item	1 st Semester	2 nd Semester	Total	3 rd Semester	4 th Semester	Total
1	Library Deposit*	3000	-	3000	5000	3000	8000
2.	Library and Material fee	10000	12000	22000	12000	10000	22000
3.	Computer*	10000	-	10000	10000	-	10000
4.	Placement		10000	10000	10000	-	10000
5.	Alumni Charges	5000	-	5000	-	-	-
6.	Hostel Fee	15000	15000	30000	15000	15000	30000
7.	Mess Advance	15000	15000	30000	15000	15000	30000
8.	Campus Facilities Charges, Including Medical	12000	12000	24000	12000	12000	24000
9.	One Time Non-refundable Charges (At the time of admission)(including examination fee, grade card, I card, events facility charges, Convocation fee,etc.)	30000	-	30000	-	-	-

Total Fee:5,48,000-28000=5,20,000(Five Lakh Twenty Thousand)

1 st Semester	2 nd Semester	3 rd Semester	4 th Semester
1,55,000	1,24,000	1,44,000	1,25,000

*Refundable

11. Total Budget Summary

No	Budget Head	Approximate Amount for Intake 60	Approximate Amount for Intake 120
1	Computer and Computer Peripherals (Hardware and Software) + Lab Development	Rs. 18370000/-	Rs. 19570000
2	Academic resources	Rs.4500000/-	Rs.4500000/-
3	Furniture	Rs.7898000/-	Rs.10273000/-
4	Teaching Faculty	Rs.2,44,67760	Rs. 6,02,47,584
5	Non-Teaching	Rs. 28, 34, 784	Rs. 28, 34, 784
6	Space requirement	Can be given Estate section	Can be given Estate section
	Total	Rs. 5,80,70,544/- + Cost of Space Requirement as per item number 4	Rs. 9,74,25,368 /- + Cost of Space Requirement as per item number 4



Department of Management Studies *

**vide resolution no. 5 of 55th SENATE meeting held on 20/09/22*



ANNEXURE - II

Sardar Vallabhbhai National Institute of Technology, Surat



Proposal
of

Department of Management Studies (DOMS)*

**vide resolution no. 5 of 55th SENATE meeting held on 20/09/22 and 61st
BOG meeting held on 27.09.2022*

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1. About the Department

Just now, Management section is the part of Department of Mathematics and Humanities. The Department of Mathematics & Humanities has been serving with distinction the needs of training young students for undertaking advanced teaching in institutes of technology and research in organizations involved in scientific work at national and international levels. The alumni of this department occupied high positions in teaching and research spread over India and abroad.

As per the resolution of the **55th Senate meeting held on 20.09.2022** and **61st BOG meeting held on 27.09.2022**, the **Department of Mathematics and Humanities will be demerged in to three departments:** Department of Mathematics, Department of Humanities & Social Sciences, and Department of Management Studies.

The Management section has existing following faculty members:

Management			Total
Professor	Associate Professor	Assistant Professor	
NIL	01	01	02

The number of faculty members having extensive expertise in the various fields is as under:

Expertise fields	Specialization	No. of faculty
Management	Techno innovation to Techno entrepreneurship through Techno Business incubation, Marketing Entrepreneurship Strategy, Supply Chain Management (SCM), General Management, Time Series Analysis, Econometrics, Quantitative Analysis, Stock Market, Portfolio Management, Financial Management	02

At present, the Management section of the department has been offering:

- Ph.D. programme in Management
- Various courses at B.Tech. and M.Sc. level related to Economics and Business Management, Innovation Incubation and Entrepreneurship, Marketing Management and Personnel Management

2. About the programme

As per the resolution of the 55th Senate meeting held on 20.09.2022 and 61st BOG meeting held on 27.09.2022, the Department of Mathematics and Humanities will be demerged in to three departments: Department of Mathematics, Department of Humanities & Social Sciences, and Department of Management Studies.

It is planned that the Department of Management Studies will offer a two / five years MBA program / Integrated MBA Program. As per the resolution, detailed proposal and action plan,

course curriculum, number of students, faculty requirements and infrastructure /space / fund requirement be placed after recommendation from Senate & Finance Committee of the Institute.

Hence, with reference to above, the following task force committee was constituted for the MBA program at SVNIT, Surat:

- (1) Prof. Ravi Shankar, Professor, Department of Management Studies, IIT Delhi – Chairman
- (2) Prof. Shailesh Gandhi, Former Dean – Programs and Chair – PGP, IIM Ahmedabad
- (3) Prof. Omkarprasad S Vaidya, Professor, IIM Lucknow
- (4) Dr. Praveen Ranjan Srivastava, Associate Professor, IIM, Rohtak
- (5) Dr.Hemantkumar P. Bulsara, Associate Professor of Management, DOMH, SVNIT, Surat
- (6) Dr. Ravi Kant, Associate Professor, DME, SVNIT, Surat
- (7) Dr.Dilip A. Patel, Associate Professor, DCE, SVNIT, Surat
- (8) Dr. Vaishali S. Dhingra, Assistant Professor of Management, DOMH, SVNIT, Surat

Three online meetings of the committee were conducted and committee has proposed the program structure.

Programme Structure

MBA in Business Analytics & Digital Transformation program is divided into four semesters; first year (2 semesters) and Second year (2 semesters).

The first-year coursework comprises core courses that explain the fundamental concepts of management and analytics across functional areas. All the courses in the first year are mandatory. The first-year coursework is followed by a summer internship during which students are required to work on an industry project with an organization for 8 weeks.

The second-year coursework comprises mandatory analytics, management, dissertation, and elective courses.

The dissertation component is in the last Semester, along with the other courses. A dissertation intended to help students find their areas of interest and apply their knowledge in defining and solving a real industry /research problem.

Programme Objectives

The objective of an MBA in Business Analytics & Digital Transformation program is to equip students with a deep understanding of how technology and data can be used to drive business success. The program aims to develop a strong foundation in business and management concepts while providing students with the skills to analyze complex data and make data-driven decisions. The program aims to help students develop the following:

Analytical and problem-solving skills: Students will learn to collect, analyse, and interpret data to identify problems and develop solutions to improve business performance.

Technical proficiency: Students will learn about various analytics tools and technologies, such as machine learning, data mining, and predictive modelling, and how to apply them to real-world business problems.

Digital Transformation: Students will be trained to develop and implement digital strategies for businesses that integrate digital technologies into all business operations.

Leadership and communication skills: Students will learn to effectively communicate data-driven insights and recommendations to senior management and other stakeholders to drive organizational change.

Global business perspective: Students will gain a global perspective on business analytics and digital transformation and be prepared to work in a global business environment.

In addition, the program aims to develop student's leadership skills and ability to communicate complex data and insights to different stakeholders effectively. By the end of the program, students should be able to lead digital transformation initiatives, make data-driven decisions, and effectively manage teams in a rapidly evolving digital landscape.

Overall, the program aims to prepare students to be business analytics and digital transformation leaders and make strategic decisions that drive organizational success.

Admission Criteria

Graduation in any field with 60 % (6.5 CGPA) (55 % for SC/ST (6.0 CGPA)) and following criteria:

SN	Name of the Criteria	Weightage
1.	CAT / GMAT / GRE / XAT / CMAT / SVNIT's own test	45%
2.	Personal Interview*	30%
3.	Academic**	10%
4.	Gender Diversity***	05%
5.	Experience****	10%
Total		100%

*Personal Interview consists of 5 parameters (Academic Knowledge, Communication, Leadership Skills, Socio Awareness & Attitude)

(Details sheet will develop once criteria approved by the committee)

**(Graduation (5%), Class 12 (3%), Class 10 (2%))

*** (Gender Diversity)

Criteria	Male	Female
Engineer	0%(Weightage) Note: if from a national institute, then 10% maybe	05%(Weightage)
Non-Engineer	05%(Weightage)	05%(Weightage)

Experience****

If the candidate has worked >12 months, then 10 % Weightage

If >6 Months, then 06 % Weightage

If >1 and <6, then 04% Weightage

Else zero % Weightage

Intake: 60 (can be increased to 120 in future)

Timeline

1	Registration (July)
2.	Orientation (August first week) for five days
3.	Semester 1 st (August-December)
4.	Semester 2 nd (January –May)
4	June –July (Internship)
5.	Registration Second year and Orientation (August first week)
6.	Semester 3 rd (August-December)
7.	Placement week (November 1 st week)
8.	Semester 4 th (January –May)
9.	Convocation

3. Programme Curriculum Structure

L: Lecture hours; T: Tutorial hours; P: Laboratory/ Practical hours; C: Credits

Year	Course	Code	Schemes	Credits	Notional hours	Evaluation Scheme				Exit-Equivalence for awarding a degree	Entry-Requirement
						Th.	Tu.	P	Total		
1 st SEM	Business Statistics and Business Research Methods (Analytics Core)	MB 101	2-0-0	2	28	100	00	00	100	--	Graduation in any field with 60 % (6.5 CGPA) (55 % for SC/ST (6.0 CGPA)) and must have cleared CAT / GMAT / GRE / XAT / CMAT / SVNIT's own test.
	Marketing Management (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Operations Management (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Managerial Economics (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Accounting and Financial Management (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Organizational Behaviour and Human Resource Management (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Business Computing (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Descriptive Analytics and Data visualization	MB XXX	2-0-0	2	28	100	00	00	100		
	Foundation of Business Analytics and Digital	MB 114	2-0-0	2	28	100	00	00	100		

	Transformation										
	Business Communication	MB XXX	2-0-0	2	28	100	00	00	100		
		TOTAL		20	280						
2 nd SEM	Decision Support System	MB XXX	2-0-0	2	28	100	00	00	100		
	Business Considerations for Edge Computing & Transformation (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Econometrics (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Strategic Management for leadership & People Analytics (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Business Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Perspective Analytics & Optimization (Management Core)	MBXXX	2-0-0	2	28	100	00	00	100		
	Data Analytics (Analytic Core)	MBXXX	2-0-0	2	28	100	00	00	100		
	System Analysis and Design (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Fintech (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Project on Descriptive Analytics (Placement point of view)	MB XXX	2-0-0	2	28	100	00	00	100		
		TOTAL		20	280						

8 WEEK INTER NSHIP				5	70						
										PG Diploma in Management and Business Analytics	
3 rd SEM	Advanced Business Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100	--	<p>1. Graduation in any field with 60 % (6.5 CGPA) (55 % for SC/ST (6.0 CGPA)) and must have cleared CAT / GMAT / GRE / XAT / CMAT / SVNIT's own test.</p> <p>2. Candidate must have acquired 50% marks in the courses equivalent to the mandatory courses (Business Statistics and Business Research Methods, Marketing Management, Managerial Economics, Operations Management,</p>
	Big Data and Cloud Computing (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Marketing Analytics	MB XXX	2-0-0	2	28	100	00	00	100		
	Supply Chain Analytics	MB XXX	2-0-0	2	28	100	00	00	100		
	Financial Analytics	MB XXX	2-0-0	2	28	100	00	00	100		
	Human Resource (HR) Analytics (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Social Media Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Capstone (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Elective	MB XXX	2-0-0	2	28	100	00	00	100		
	Elective	MB XXX	2-0-0	2	28	100	00	00	100		
	TOTAL			20	280						

											Accounting and financial management, Organizational Behaviour and Human Resource Management, Business Computing, Descriptive Analytics and Data visualization, Foundation of Business Analytics and Digital Transformation, Business Communication, Decision support system, Business Considerations for Edge Computing & Transformation, Econometrics, Strategic Management for leadership & People Analytics, Business Analytics, Perspective Analytics & Optimization, Data Analytics, System Analysis and Design, Fintech, Project on Descriptive Analytics) and PG Diploma in Management and
--	--	--	--	--	--	--	--	--	--	--	--

											Business Analytics 3. Candidate should clear the screening test with 50 % along with above mentioned courses as given in the criteria 2. 4. Candidate must clear personal interview for final selection
4 th SEM	Predictive Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Cyber and Crime Analytics	MB XXX	2-0-0	2	28	100	00	00	100		
	Deep Learning for Managers (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Project Management for Business Analytics (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Industry 4.0 (Analytics Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Growth Strategies for Digital Bazar and Management	MB XXX	2-0-0	2	28	100	00	00	100		

	(Management Core)										
	Managing Digital Transformation (Management Core)	MB XXX	2-0-0	2	28	100	00	00	100		
	Integrative Project and Dissertation	MB XXX	2-0-0	2	28	100	00	00	100		
	Elective	MB XXX	2-0-0	2	28	100	00	00	100		
	Elective	MB XXX	2-0-0	2	28	100	00	00	100		
		TOTAL		20	280						
		Total of program		85	1190						
										MBA in Business Analytics and Digital Transformation Degree	

Pool of the subject:

○ Core Subjects Discipline-wise (Management)	○ Core Subjects Discipline-wise (Analytics)
Marketing Management Operations Management Managerial Economics Accounting and Financial Management Organizational Behaviour and HRM Descriptive Analytics and Data visualization Foundation of Business Analytics and Digital Transformation Business Communication Decision Support System Econometrics Strategic Management for leadership & People Perspective Analytics & Optimization Fintech Marketing Analytics Supply Chain Analytics Financial Analytics HR Analytics Cyber and Crime Analytics Growth Strategies for Digital Bazar and Management Managing Digital Transformation Integrative Project and Dissertation Capstone	Business Statistics and Business Research Methods Business Computing Business Considerations for Edge Computing & Transformation Business Analytics Data Analytics System Analysis and Design Project on Descriptive Analytics Advanced Business Analytics Big Data and Cloud Computing Social Media Analytics Predictive Analytics Deep Learning for Managers Project Management for Business Analytics Industry 4.0

Elective Specialisation Courses

HR	Finance	Operations & Supply Chain	Marketing & Strategy	IT & Digital Transformation
Legal Aspects of Business	Mergers and Acquisitions	Service Operation Management	Consumer Behaviour	Health Care Analytics
Recruitment & Selection: Analytical Prospective	Corporate Finance	Operations Strategy	Sales and Distribution Management	IT Strategy Management
Strategies and Skills for Successful Negotiation	Investment Analysis & Portfolio Management	Business Games & Decision Analysis	Digital Marketing & Innovation	Business Application of Blockchain
Management Lessons from Ramayan and Geeta	Management of Financial Institutions & Services	International Logistics Management	Pricing Strategy & Rural Marketing	Emerging Trends in Business
Performance and Compensation Management	Financial Modeling	Green Business Management	International Business & Strategy for Analytics	System Thinking and Business Dynamics
Personal Values, Goals and Career Options	Advanced Business Analytics for	Circular Economy and Green Supply chain management	Neuromarketing and Consumer Neuroscience	Cyber Management

	Finance			
Making and Transformation of a CEO	Quantitative Applications in Finance	Advanced Mathematical Modeling for Managerial Decisions	International Business Strategy	AI in Management
Business and Society	Futures Options & Risk Management	supply Chain Thinking: Value Creation and Adaptation	International Marketing and Analytics	IT Consultancy Management
Personal Competencies for International HRM	International Finance	QUALITY MANAGEMENT AND SIX SIGMA	Innovation and Entrepreneurship	Gamification for Managers
Leadership: Vision, Meaning and Reality	Current Economic Scenario; Indian Economy and Policy Matters for Business	Health Care Operations Management	Advertising and Sales Promotion Management	Managing Digital Transformation: Strategies, Leadership and Technology
Strategic Planning and Human Resource Management	Strategic Perspectives in Banking	Sustainable Supply Chain Management	Managing Luxury Business	Open AI: Innovation Management
		Safety Management	Advanced Marketing Research	

4. Space Requirement

Required Infrastructure if intake is 60		Total
Class Rooms	2 main classrooms of 60 capacity 5 Elective specialization classrooms capacity of 30 to 40 (All the class rooms should be ICT enabled) (All classes should be having semi-circular stepped seating arrangement)	07
Laboratory	2 Computer Labs [01 for MBA students (60 Capacity) and 1 for PhD scholars (60 capacity)]	02
Faculty Cabin	15	15
Store Room	02	02
Seminar Hall	02 of 60 capacity	02
Conference Hall	01 of 150 capacity	01
Meeting Room	01 of 30 to 40 capacity	01
Rooms for PhD scholars	06 of 10 capacity	06
Provision for future Research Laboratory for projects etc	03	03
HOD office	01	01
Department office	01	01
Exam center	01	01
Departmental Library	01	01
Girls common room	01	01
Ladies common room (Faculty and Staff)	01	01
Pantry room for tea and refreshment	01	01
Sports room	01	01
Activity / Event room for students	01	01
Required Infrastructure if intake is 120 in future		Total
Class Rooms	4 main classrooms of 60 capacity 5 Elective specialization classrooms capacity of 40 (All the class rooms should be ICT enabled)	09

	(All classes should be having semi-circular stepped seating arrangement)	
Laboratory	2 Computer Labs [01 for MBA students (60 Capacity) and 1 for PhD scholars (60 capacity)]	02
Faculty Cabin	25	25
Store Room	02	02
Seminar Hall	02 of 60 capacity	02
Conference Hall	01 of 150 capacity	01
Meeting Room	01 of 30 to 40 capacity	01
Rooms for PhD scholars	06 of 10 capacity	06
Provision for future Research Laboratory for projects etc	03	03
HOD office	01	01
Department office	01	01
Exam center	01	01
Departmental Library	01	01
Girls common room	01	01
Ladies common room (Faculty and Staff)	01	01
Pantry room for tea and refreshment	01	01
Sports room	01	01
Activity / Event room for students	01	01

Note: Estimation can be given by the Estate section for above

5. Hardware and Software

If intake is 60	
Item	Approximate cost (Rs.)
Computers [120 for 2 labs + 28 (1 for HOD office, 2 for department office, 20 for faculty members, 1 for meeting room, 1 for conference hall, 2 for seminar hall, 1 for departmental library) = 148]	148 x 100000 (including UPS) = 14800000
Lab development cost	500000
26 Printers [4 for 2 labs, 1 for HOD, 20 for faculty members, 1 for department office]	26 x 20000 = 520000
2 Photo copier for office	2 x 150000=300000
15 Projectors	15x50000=750000
Provision for software	1500000
Total	Rs.18370000

If intake is 120	
Item	Approximate cost (Rs.)
Computers [120 for 2 labs + 38 (1 for HOD office, 2 for department office, 30 for faculty members, 1 for meeting room, 1 for conference hall, 2 for seminar hall, 1 for departmental library) = 158]	158 x 100000 (including UPS) = 15800000
Lab development cost	500000
36 Printers [4 for 2 labs, 1 for HOD, 30 for faculty members, 1 for department office]	36 x 20000 = 720000
2 Photo copier for office	2 x 150000=300000
15 Projectors	15x50000=750000
Provision for software	1500000
Total	Rs.19570000

6.Faculty Requirements (Management)

MBA in Business Analytics and Digital Transformation with Intake of 60 : 120

Faculty requirement: 10 (As per 1: 12 ratio)

MBA in Business Analytics and Digital Transformation with Intake of 120 : 240

Faculty requirement: 20 (As per 1: 12 ratio)

The Management section has existing following faculty members:

Management			Total
Professor	Associate Professor	Assistant Professor	
NIL	01	01	02

Existing faculties	Requirement			Additional Requirement		
	Existing B.Tech. / M.Sc. Programme	Proposed Programme (Intake 60)	Proposed Programme (Intake 120)	Existing B.Tech. / M.Sc. Programme	Proposed Programme (Intake 60)	Proposed Programme (Intake 120)
02	05	10	20	03	10	20

For faculty additional Cost as per ratio : 1:2:4

For Intake: 60

Designation	No	Scale	Approx Amount per month	Approx Amount per year
Assistant Professor	5	Pay level-12 101500	5 x (101500+38570 (DA 38%)+ 18270 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 841380	Rs. 841380X 12 = Rs. 10096560
Associate Professor	3	Pay Level 13A2 139600	3 x(139600+53048 (DA 38%)+ 25128 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 681336	Rs. 681336X 12 = Rs. 8176032
Professor	2	Pay Level 14A 159100	2 x(159100+60458 (DA 38%)+ 28638 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 516264	Rs. 516264X 12 = Rs. 6195168
			Total	Rs.2,44,67760

For Intake: 120

Designation	No	Scale	Scale	Approx Amount
Assistant Professor	11	Pay level-12 101500	11 x (101500+38570 (DA 38%)+ 18270 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 1851036	Rs. 1851036X 12 = Rs. 22212432
Associate Professor	6	Pay Level 13A2 139600	6x(139600+53048 (DA 38%)+ 25128 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 1362672	Rs. 22,77,120X 12 = Rs. 16352064
Professor	3	Pay Level 14A 159100	3x(159100+60458 (DA 38%)+ 28638 (18 % HRA) + (7200 + 7200*0.38) (TA)) = 1806924	Rs. 1806924X12 = Rs. 21683088
			Total	Rs. 6,02,47,584

+ Additional 03 Faculty members are required to run Existing B.Tech. / M.Sc. Programme courses.

Faculty Specialization requirement:

Business Analytics and Digital Transformation, Business computing, Data Analytics, Big Data and Cloud computing, Management Accounting, Human Resource Management, Operation and Supply Chain Management, Marketing, Strategy, General Management, Time Series Analysis, Econometrics, Quantitative Analysis, Stock Market, Portfolio Management, Financial Management, Innovation and Entrepreneurship, etc.

7. Non Teaching Staff Requirements

Total Additional Requirement:				
Programme	Clerk (C)	Lab Technician (L)	Peon (P)	Total
MBA + B.Tech.+ M.Sc.	01	02	04	07

For Non Teaching additional Cost : For Intake 60 Or 120

Designation	Scale	Number	Approx Amount per month	Approx Amount per year
Clerk	21700	01	01 x (21700+8246(DA 38%)+ 3906 (18 % HRA) + (3600 + 3600*0.38) (TA)) = Rs.38,820	Rs. 38, 820 X 12 = Rs.4, 65, 840
Lab Technician	21700	02	02 x (21700+8246(DA 38%)+ 3906 (18 % HRA) + (3600 + 3600*0.38) (TA)) = Rs. 77, 640	Rs. 77, 640 X 12 = Rs.9, 31, 680
Peon	18000	04	04 x (18000+6840(DA 38%)+ 3240 (18 % HRA) + (1350 + 1350*0.38) (TA)) = Rs. 1,19,772	Rs. 1, 19,772 X 12 = Rs. 14, 37, 264
			Total	Rs. 28, 34, 784

8. Academic Resource Requirement

Item	Approximate Cost (Rs.)
Case study subscription for 2 years	1000000
Books	2500000
Miscellaneous	1000000
Total	4500000

9. Furniture Requirement

If intake is 60		
Item	Quantity	Approximate Cost (Rs.)
Benches	160	160x10000=1600000
Chairs with desk	270	270x7000=1890000
Computer cum office cum normal seating chairs	300	300x7000=2100000
Computer tables	145	145x10000=1450000
Faculty tables	20	20x20000=400000
Faculty chairs	3x20=60	60x10000=600000
Cupboards	50	50x8000=400000
Book shelf	40	40x7500=300000
Tables (Research scholars, Class rooms, seminar hall, department office, meeting room, conference room, departmental library, store room, exam centers etc.)	92	92x6500=598000
Total		Rs.7898000
If intake is 120		
Item	Quantity	Approximate Cost (Rs.)
Benches	180	180x10000=1800000
Chairs with desk	270	270x7000=1890000
Computer cum office cum normal seating chairs	300	300x7000=2100000
Computer tables	145	145x10000=1450000
Faculty tables	30	30x20000=600000
Faculty chairs	3x30=90	90x10000=900000
Cupboards	70	70x8000=560000
Book shelf	50	50x7500=375000
Tables (Research scholars, Class rooms, seminar hall, department office, meeting room, conference room, departmental library, store room, exam centers etc.)	92	92x6500=598000
Total		Rs. 10273000

10. Fees Structure

The following are the Charges and Expenses structure of the 2-year MBA of NIT Surat

The fee structure effective and fee payable by the new entrant students in the MBA batch shall be as under:

Sl. No.	Main	MBA (fee)			
		1 st Semester	2 nd Semester	3 rd Semester	4 th Semester
1	Institute fee				
2	Tuition Fee	45000	50000	55000	60000
3	Registration fee	10000	10000	10000	10000

Students will also be required to pay the Placement Support Charges, Alumni Membership/Support Charges & Refundable Deposits, Mess, campus charges etc., towards the following heads:

Particulars		MBA 1 st Year			MBA 2 nd Year		
SN	Item	1 st Semester	2 nd Semester	Total	3 rd Semester	4 th Semester	Total
1	Library Deposit*	3000	-	3000	5000	3000	8000
2.	Library and Material fee	10000	12000	22000	12000	10000	22000
3.	Computer*	10000	-	10000	10000	-	10000
4.	Placement		10000	10000	10000	-	10000
5.	Alumni Charges	5000	-	5000	-	-	-
6.	Hostel Fee	15000	15000	30000	15000	15000	30000
7.	Mess Advance	15000	15000	30000	15000	15000	30000
8.	Campus Facilities Charges, Including Medical	12000	12000	24000	12000	12000	24000
9.	One Time Non-refundable Charges (At the time of admission)(including examination fee, grade card, I card, events facility charges, Convocation fee,etc.)	30000	-	30000	-	-	-

Total Fee:5,48,000-28000=5,20,000(Five Lakh Twenty Thousand)

1 st Semester	2 nd Semester	3 rd Semester	4 th Semester
1,55,000	1,24,000	1,44,000	1,25,000

*Refundable

11. Total Budget Summary

No	Budget Head	Approximate Amount for Intake 60	Approximate Amount for Intake 120
1	Computer and Computer Peripherals (Hardware and Software) + Lab Development	Rs. 18370000/-	Rs. 19570000
2	Academic resources	Rs.4500000/-	Rs.4500000/-
3	Furniture	Rs.7898000/-	Rs.10273000/-
4	Teaching Faculty	Rs.2,44,67760	Rs. 6,02,47,584
5	Non-Teaching	Rs. 28, 34, 784	Rs. 28, 34, 784
6	Space requirement	Can be given Estate section	Can be given Estate section
	Total	Rs. 5,80,70,544/- + Cost of Space Requirement as per item number 4	Rs. 9,74,25,368 /- + Cost of Space Requirement as per item number 4



Department of Management Studies *

**vide resolution no. 5 of 55th SENATE meeting held on 20/09/22*



Urban Planning Section, DoCE (Proposed-Department of Urban Planning)

Programme: **Four Years Bachelor in Planning (B. Plan)**

Exit-Equivalence for awarding a degree	Entry-Requirement
UG-Certificate — UG-Certificate in Planning	I. 12th and JEE/NATA
UG-Diploma - UG-Diploma in Planning	I. 12th. However, preference will be given to the candidates admitted through JEE/NATA. II. UG-Certificate in Planning or equivalent and 1 year of Vocational or Professional experience III. Screening based on Branch Specific Prerequisite (written test) IV. Candidate must have acquired 50% credit of the subjects equivalent to the mandatory subjects of first year
B. Vocational -B. Vocational in Planning (Degree will be awarded to the students during exit if any and to all the eligible students of the existing programme upon their request)	I. 12th. However, preference will be given to the candidates admitted through JEE/NATA. II. UG-Diploma in Planning or equivalent and 1 year of Vocational or Professional experience III. Screening based on Branch Specific Prerequisite (written test on subjects) IV. Candidate must have acquired 50% credit of the subjects equivalent to the mandatory subjects each of first and second year
Bachelor of Planning (For the students in the existing Four years B.Plan)	II. 12th. However, preference will be given to the candidates admitted through JEE/NATA. III. B.Voc. Honors / B.Voc. (3 year programme) Planning or equivalent and 1 year of Vocational or Professional experience

Urban Planning Section, DoCE, SVNIT

(Proposed-Department of Planning)

Programme: **Four Years Bachelor in Planning (B Plan)**

Year	Subjects	Code	Scheme	Credits	Notional hours
1 st	Mandatory Core Fundamentals of Urban and Regional Planning	BP 101	3-0-0	3	65
	Mathematics Statistical and Quantitative Methods in Planning - I	BP 102	3-0-0	3	65
	Mandatory Core Planning Theory -I	BP 103	3-0-0	3	65
	Other Engineering Branch Materials and Principles of Construction	BP 104	3-0-2	4	85
	Humanities Elements of Economics	BP 105	3-0-0	3	65
	Vocational Planning and Design Lab -I	BP 106	0-0-10	5	200 (20 X 10)
				21	545
	Mandatory Core Planning Theory -II	BP 201	3-1-0	4	70
	Mandatory Core Demography and Urbanization	BP 202	3-0-0	3	65
	Other Branch Fundamentals of Building and Structures	BP 203	3-0-2	4	85
	Other Branch Surveying and Photogrammetry	BP 204	3-0-2	4	85
	Humanities Holistic Empowerment and Human values	BP 205	3-0-0	00	65
	Professional Experience Planning and Design Lab -II	BP 206	0-0-10	5	200 (20 X10)
				20	575
				41	1115

2 nd	Mandatory Core Planning Practice	BP 301	3-0-0	3	65
	Mandatory Core Housing and Community Planning	BP 302	3-0-0	3	65
	Mandatory Core Traffic and Transport Planning	BP 303	3-0-0	3	65
	Other Engineering Ecology, Environment and Resource Management	BP 304	3-0-0	3	65
	Humanities English, Professional Communication and Technical report writing	BP 305	3-0-0	3	65
	Vocational: Planning Studio-I	BP 306	0-0-10	5	200 (20X 10)
				20	525
	Mandatory Core Settlement Geography	BP 401	3-0-0	3	65
	Mandatory Core Planning and Management of Utilities and Services	BP 402	3-0-0	3	65
	Optional Core Settlement sociology	BP 403	3-0-0	3	65
	Optional Core Introduction to Regional Planning	BP 404	3-0-0	3	65
	Elective Metropolitan Planning, Development and Management	BP 405	3-0-0	3	65
	Vocational Planning Studio-II	BP 406	0-0-10	5	200 (20 x 10)
				20	525
				40	1050

3rd	Mandatory Core Planning Legislation	BP 501	3-0-0	3	65
	Mandatory Core Urban Renewal and Conservation	BP 502	3-0-0	3	65
	Optional Core Project Formulation, Appraisal and Management	BP 503	3-1-0	4	70
	Elective Urban-Rural Governance and Finance	BP 504	3-0-0	3	65
	Elective (minor/honour) Introduction to Urban Design	BP 505	3-0-0	3	65
	Vocational Planning Studio-III	BP 506	0-0-10	5	200 (20 X 10)
				21	530
	Mandatory Core Transportation Planning	BP 601	3-0-0	3	65
	Mandatory Core Real Estate Planning and Management	BP 602	3-0-0	3	65
	Optional Core Geo-Informatics for Planning	BP 603	3-0-2	4	85
	Elective Urban Renewal, Conservation and Heritage	BP 604	3-0-0	3	65
	Elective Sustainable Urban Planning Practices	BP 605	3-0-0	3	65
	Vocational Planning Studio -IV	BP 606	0-0-10	5	200 (20x10)
				21	545
				42	1075

4th	Mandatory Core Infrastructure Planning, Development and Management	BP 701	3-1-0	4	70
	Elective Climate Change	BP 702	3-0-0	3	65
	Elective (Specialization – Minor / Honor)		3-0-0	3	65
	Elective (Specialization – Minor / Honor)		3-0-0	3	65
	Elective		3-0-0	3	65
	Professional Planning Thesis	BP 703	0-0-8	4	160 (20X8)
				20	490
	Professional Vocational Training	BP 801	0-0-40	20	800 (40X20)
				20	800
				40	1290

(ANNEXURE-I)

Urban Planning Section, DoCE (Proposed-Department of Planning) Implementation of National Education Policy

Programme: Four Years Bachelor in Planning (B. Plan)

Year	Semester	Subjects	Code	Scheme	Credits	Notional hours	Evaluation Scheme				Exit-Equivalence for awarding a degree	Entry-Requirement
1 st	1 st						Th.	Tu.	P	Total		
		Mandatory Core										
		Fundamentals of Urban and Regional Planning	BP 101	3-0-0	3	65	100	00	00	100	UG-Certificate in Planning	L. 12 and JEE/NATA
		Mathematics										
		Statistical and Quantitative Methods in Planning - I	BP 102	3-0-0	3	65	100	00	00	100		
		Mandatory Core										
		Planning Theory - I	BP 103	3-0-0	3	65	100	00	00	100		
		Other Engineering Branch										
		Materials and Principles of Construction	BP 104	3-0-2	4	85	100	00	50	150		
		Humanities										
		Elements of Economics	BP 105	3-0-0	3	65	100	00	00	100		
		Vocational										
		Planning and Design Lab -I	BP 106	0-0-10	5	200 (20 X 10)	00	00	300	300		
					21	545	500	00	350	850		

2 nd	II nd	Mandatory Core Planning Theory -II	BP 201	3-1-0	4	70	100	25	00	125	UG-Diploma in Planning	I. 12 th . However, preference will be given to the candidates admitted through JEE/NATA. II. UG-Certificate in Planning or equivalent and 1 year of Vocational or Professional experience III. Screening based on Branch Specific Prerequisite (written test) IV. Candidate must have acquired 50% credit of the subjects equivalent to the mandatory subjects of first year
		Mandatory Core Demography and Urbanization	BP 202	3-0-0	3	65	100	00	00	100		
		Other Branch Fundamentals of Building and Structures	BP 203	3-0-2	4	85	100	00	50	150		
		Other Branch Surveying and Photogrammetry	BP 204	3-0-2	4	85	100	00	50	150		
		Humanities Holistic Empowerment and Human values	BP 205	3-0-0	00	65	100	00	00	100		
		Professional Experience Planning and Design Lab -II	BP 206	0-0-10	5	200 (20X10)	00	00	300	300		
					20	570	500	25	400	925		
	III rd	Mandatory Core Planning Practice	BP 301	3-0-0	3	65	100	00	00	100		
		Mandatory Core Housing and Community Planning	BP 302	3-0-0	3	65	100	00	00	100		
		Mandatory Core Traffic and Transport Planning	BP 303	3-0-0	3	65	100	00	00	100		
		Other Engineering Ecology, Environment and Resource Management	BP 304	3-0-0	3	65	100	00	00	100		
		Humanities English, Professional Communication and Technical report writing	BP 305	3-0-0	3	65	100	00	00	100		
		Vocational: Planning Studio-I	BP 306	0-0-10	5	200 (20X 10)	00	00	300	300		
					20	525	500	00	300	800		

3 rd	IV th	Mandatory Core Settlement Geography	BP 401	3-0-0	3	65	100	00	00	100	B. Vocational -B. Vocational Planning (Degree will beawarded to the students duringexit if any and toal the eligible students of the existing programme upontheir request)	I. 12th. However, preference will be given to the candidates admitted through JEE/NATA. II. UG-Diploma in Planning or equivalent and 1 year of Vocational or Professional experience III. Screening based on Branch Specific Prerequisite (written test on subjects
		Mandatory Core Planning and Management of Utilities and Services	BP 402	3-0-0	3	65	100	00	00	100		
		Optional Core Settlement sociology	BP 403	3-0-0	3	65	100	00	00	100		
		Optional Core Introduction to Regional Planning	BP 404	3-0-0	3	65	100	00	00	100		
		Elective Metropolitan Planning, Development and Management	BP 405	3-0-0	3	65	100	00	00	100		
		Vocational Planning Studio-II	BP 406	0-0-10	5	200 (20 x 10)	00	00	300	300		
					20	525	500	00	300	800		
					40	1050	1000	00	600	1600		
		Mandatory Core Planning Legislation	BP 501	3-0-0	3	65	100	00	00	100		
		Mandatory Core Urban Renewal and Conservation	BP 502	3-0-0	3	65	100	00	00	100		
3 rd	V th	Optional Core Project Formulation, Appraisal and Management	BP 503	3-1-0	4	70	100	25	00	125	B. Vocational -B. Vocational Planning (Degree will beawarded to the students duringexit if any and toal the eligible students of the existing programme upontheir request)	I. 12th. However, preference will be given to the candidates admitted through JEE/NATA. II. UG-Diploma in Planning or equivalent and 1 year of Vocational or Professional experience III. Screening based on Branch Specific Prerequisite (written test on subjects
		Elective Urban-Rural Governance and Finance	BP 504	3-0-0	3	65	100	00	00	100		
		Elective (minor/honour) Introduction to Urban Design	BP 505	3-0-0	3	65	100	00	00	100		
		Vocational Planning Studio-III	BP 506	0-0-10	5	200 (20 X 8)	00	00	300	300		
					21	530	500	25	300	825		

VIII th	Professional Vocational Training	BP 801	0-0-40	20	800 (40X20)	00	00	500	500	the subjects equivalent to the mandatory subjects each of four years programme in B. Plan atSVNIT
				20	800	00	00	500	500	
				40	1290	500	25	800	1325	

Semester	I	II	III	IV	V	VI	VII	VIII	Total
Credits	21	20	20	20	21	21	20	20	163

Pool of the subjects:

o Core Subjects Discipline-wise (Mandatory)	o Core Subjects Discipline-wise (Optional)
BP XXX Specifications, Estimation and Valuation BP XXX Techniques of Planning BP XXX Applied Geology and Hydrology BP XXX Landscape Planning and Design BP XXX Disaster Risk Mitigation and Management	BP XXX Rural Development and Management BP XXX Planning and Management of Informal Sector BP XXX Environmental Impact Assessment BP XXX PPP in Urban Environmental Services BP XXX Ethics in Planning

DEPARTMENT OF CIVIL ENGINEERING

Bachelor of Planning (B. Plan.)

SEMESTER – I

Sr. No.	Course	Course Code	Teaching Scheme Hours per Week			Credits	Examination Scheme				
			L	TU	PR		Theory Marks	Tutorial Marks	Practical		Total Marks
									(Internal Marks)	(External Marks)	
1	Fundamentals of Urban and Regional Planning	BP-101	3	-	-	3	100	-	-	-	100
2	Statistical & Quantitative Methods in Planning I	BP-102	3	-	-	3	100	-	-	-	100
3	Planning Theory I	BP-103	3	-	-	3	100	-	-	-	100
4	Materials & Principles of Construction	BP-104	3	-	2	4	100	-	25	25	150
5	Elements of Economics	BP-105	3	-	-	3	100	-	-	-	100
6	Planning and Design Lab -I (Graphics & Presentation Techniques)	BP-106	-	-	10	5	-	-	150	150	300
Total			15	-	12	21					
Total contact hours per week = 27			Total Credit = 21				Total Marks = 850				

SEMESTER – II

Sr. No.	Course	Course Code	Teaching Scheme Hours per Week			Credits	Examination Scheme				
			L	TU	PR		Theory Marks	Tutorial Marks	Practical		Total Marks
									(Internal Marks)	(External Marks)	
1	Planning Theory II	BP-201	3	1	-	4	100	25	-	-	125
2	Demography & Urbanization	BP-202	3	-	-	3	100	-	-	-	100
3	Fundamentals of Building & Structures	BP-203	3	-	2	4	100	-	25	25	150
4	Surveying & Photogrammetry	BP-204	3	-	2	4	100	-	25	25	150
5	Holistic Empowerment & Human Values	BP-205	3	-	-	0	100	-	-	-	100
6	Planning and Design Lab - II (Graphics & Presentation Techniques)	BP-206	-	-	10	5	-	-	150	150	300
Total			15	1	14	20					
Total contact hours per week = 30			Total Credit = 20				Total Marks = 925				

SEMESTER – III

Sr. No.	Course	Course Code	Teaching Scheme Hours per Week			Credits	Examination Scheme				
			L	TU	PR		Theory Marks	Tutorial Marks	Practical		Total Marks
									(Internal Marks)	(External Marks)	
1	Planning Practice	BP-301	3	-	-	3	100	-	-	-	100
2	Housing & Community Planning	BP-302	3	-	-	3	100	-	-	-	100
3	Traffic & Transport Planning	BP-303	3	-	-	3	100	-	-	-	100
4	Ecology, Environment & Resource Management	BP-304	3	-	-	3	100	-	-	-	100
5	English, Professional Communication & Technical Report Writing	BP-305	3	-	-	3	100	-	-	-	100
6	Planning Studio I	BP-306	-	-	10	5	-	-	150	150	300
Total			15	0	10	20					
Total contact hours per week = 25			Total Credit = 20				Total Marks = 800				

SEMESTER – IV

Sr. No.	Course	Course Code	Teaching Scheme Hours per Week			Credits	Examination Scheme				
			L	TU	PR		Theory Marks	Tutorial Marks	Practical		Total Marks
									(Internal Marks)	(External Marks)	
1	Settlement Geography	BP-401	3	-	-	3	100	-	-	-	100
2	Planning & Management of Utilities & Services	BP-402	3	-	-	3	100	-	-	-	100
3	Settlement Sociology	BP-403	3	-	-	3	100	-	-	-	100
4	Introduction to Regional Planning	BP-404	3	-	-	3	100	-	-	-	100
5	Metropolitan Planning, Development & Management	BP-405	3	-	-	3	100	-	-	-	100
6	Planning Studio II	BP-406	-	-	10	5	-	-	150	150	300
Total			15	0	10	20					
Total contact hours per week = 25			Total Credit = 20				Total Marks = 800				

SEMESTER – V

Sr. No.	Course	Course Code	Teaching Scheme Hours per Week			Credits	Examination Scheme				
			L	TU	PR		Theory Marks	Tutorial Marks	Practical		Total Marks
									(Internal Marks)	(External Marks)	
1	Planning Legislation	BP-501	3	-	-	3	100	-	-	-	100
2	Urban Renewal & Conservation	BP-502	3	-	-	3	100	-	-	-	100
3	Project Formulation, Appraisal & Management	BP-503	3	1	-	4	100	25	-	-	125
4	Urban Rural Governance & Finance	BP-504	3	-	-	3	100	-	-	-	100
5	Introduction to Urban Design	BP-505	3	-	-	3	100	-	-	-	100
6	Planning Studio III	BP-506	-	-	10	5	-	-	150	150	300
Total			15	1	10	21					
Total contact hours per week = 26			Total Credit = 21				Total Marks = 825				

SEMESTER – VI

Sr. No.	Course	Course Code	Teaching Scheme Hours per Week			Credits	Examination Scheme				
			L	TU	PR		Theory Marks	Tutorial Marks	Practical		Total Marks
									(Internal Marks)	(External Marks)	
1	Transportation Planning	BP-601	3	-	-	3	100	-	-	-	100
2	Real Estate Planning & Management	BP-602	3	-	-	3	100	-	-	-	100
3	Geo Informatics for Planning	BP-603	3	-	2	4	100	-	25	25	150
4	Urban Renewal, Conservation & Heritage	BP-604	3	-	-	3	100	-	-	-	100
5	Elective - I (Sustainable Urban Planning Practices)	BP-605	3	-	-	3	100	-	-	-	100
6	Planning Studio IV	BP-606	-	-	10	5	-	-	150	150	300
Total			15	0	12	21					
Total contact hours per week = 27			Total Credit = 21				Total Marks = 850				

SEMESTER – VII

Sr. No.	Course	Course Code	Teaching Scheme Hours per Week			Credits	Examination Scheme				
			L	TU	PR		Theory Marks	Tutorial Marks	Practical		Total Marks
									(Internal Marks)	(External Marks)	
1	Infrastructure Planning, Development & Management	BP-701	3	1	-	4	100	25	-	-	125
2	Climate Change	BP-702	3	-	-	3	100	-	-	-	100
3	Elective		3	-	-	3	100	-	-	-	100
4	Elective		3	-	-	3	100	-	-	-	100
5	Elective		3	-	-	3	100	-	-	-	100
6	Planning Thesis	BP-703	-	-	8	4	-	-	150	150	300
Total			15	0	8	20					
Total contact hours per week = 23			Total Credit = 20				Total Marks = 825				

SEMESTER – VIII

Sr. No.	Course	Course Code	Teaching Scheme Hours per Week			Credits	Examination Scheme				
			L	TU	PR		Theory Marks	Tutorial Marks	Practical		Total Marks
									(Internal Marks)	(External Marks)	
1	Vocational Training	BP-801	-	-	40	20	-	-	250	250	500
Total			-	-	-	20					
Total contact hours per week =			Total Credit = 20				Total Marks = 500				

SUMMARY:

Total Credit:	21 + 20 + 20 + 20 + 21 + 21 + 20 + 20 = 163
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S. V. National of Institute of Technology, Surat
P.G. Section in Urban Planning

Timeline for M.Plan & B.Plan and Department of Planning.

Sr. No.	Date	Particulars	Action
1	27/08/2018	Application received from Mukundray B. Kothiya, M.Tech. in Planning (Admission No: P06PL405) regarding disqualification of application for the post of Town Planner stating reason that "disqualified due to reason of not complies prescribe qualification as mentioned in advertisement"	Degree justification letter was issued
2	28/06/2019	Letter received from Institute of Town Planners, India (ITPI) to address suitable letter to all the Secretaries of various Govt. offices for Qualifying degree for various posts at Town Planning Department	Letters are sent to various authority
3	19/07/2019	Letters sent to various Govt. offices in Reference letter received from ITPI dated 28/06/2019 to all concerned on 19/07/2019	Processed
4	08/09/2020	Proposals submitted by P.G. Section in Urban Planning for Perspective Plan stating starting of new UG course of Bachelor of Planning from 2022-23	Preparation of Teaching Scheme for B. Plan.
5	04/06/2021	Minutes of the 41 st DAAC meeting, Reso. 41.8 approving Teaching scheme of Bachelor of Planning.	B. Plan. Teaching Scheme approved by DAAC
6	03/08/2021	Minutes of the 51 st IAAC meeting, Reso. 2 (b) suggesting revisit the nomenclature as per other institute	Request for Revisit by IAAC
7	26/03/2022	Curriculum Workshop for M. Plan. and B. Plan.	Workshop organised
8	26/03/2022	Minutes of Curriculum Workshop for M. Plan. and B. Plan. suggesting separate School of Planning and change of M. Tech. (Urban Planning) with M. Plan.(Urban Planning)	Expert suggestions are received for School of Planning, M. Plan. and B. Plan.

RMV

Prepared

Sr. No.	Date	Particulars	Action
9	19/07/2022	Minutes of the 47 th DAAC meeting, Reso 47.6, stating approval of new scheme	Further submitted to IAAC
10	05/08/2022	Minutes of the 57 th IAAC meeting, (a) Reso. 1 approving replacement of M.Tech. (Urban Planning) with M. Plan. (Urban Planning). The minutes require wording correction.	Revised nomenclatures M.Plan. approved by IAAC from Academic Year 2022-23
		(b) Reso. 6 Approving bifurcation of Existing 'Department of Mathematics and Humanities' in Three departments (i) 'Department of Mathematics (ii) 'Department of Humanities and Social Science' (iii) 'School of Management'	(a) Only Three Department / School are approved. (b) School Planning need to add as separate department

Ravinder

(Dr Ravin M Tailor)
P.G. In-charge (UP)

Krupesh

(Dr Krupesh A Chauhan)
Section Head (UP)

Department of Electronics Engineering, SVNIT, Surat

Curriculum Structure for 1st year and 2nd year for B. Tech. in Electronics and VLSI Engineering

Semester - I

Sr. No.	Subjects	Code	Schemes	Credits	Notional hours
1.	Science Semiconductor Physics and Devices	EC 1XX	3-0-0	03	55
2.	Mathematics Mathematics-I	MA 1XX	3-1-0	04	85
3.	Other Engineering Fundamentals of Computer & Programming	CS 1XX	3-0-2	04	85
4.	Other Engineering Basic Electrical Engineering	EE 1XX	3-0-2	04	85
5.	Humanities Holistic Empowerment and Human Values	HU 1XX	3-0-0	03	55
6.	Vocational		0-0-8	04	160 (20 x 8)
				22	525

Semester - II

Sr. No.	Subjects	Code	Schemes	Credits	Notional hours
1.	Mathematics Mathematics-II	MA 1XX	3-1-0	04	85
2.	Mandatory Core Electronic Circuits	EC 1XX	3-0-2	04	85
3.	Mandatory Core Digital Logic Design	EC 1XX	3-0-2	04	85
4.	Other Engineering Network Analysis and Synthesis	EE 1XX	3-0-0	03	55
5.	Humanities English & Professional Communication	HU 1XX	3-0-0	03	55
6.	Vocational		0-0-8	04	160 (20 x 8)
				22	525

Semester - III

Sr. No.	Subjects	Code	Schemes	Credits	Notional hours
1.	Mandatory Core Analog Circuits	EC 2XX	3-0-2	04	85
2.	Mandatory Core Signals and Systems	EC 2XX	3-1-0	04	85
3.	Mandatory Core Microprocessor and Microcontrollers	EC 2XX	3-0-2	04	85
4.	Science Engineering Chemistry	AC 2XX	3-0-2	04	85
5.	Other Engineering Control Systems	EE 2XX	3-0-0	03	55
6.	Vocational		0-0-8	04	160 (20 x 8)
				23	555

Semester - IV

Sr. No.	Subjects	Code	Schemes	Credits	Notional hours
1.	Mandatory Core Statistical Signal Analysis	EC 2XX	3-1-0	04	85
2.	Mandatory Core Linear IC Applications	EC 2XX	3-0-2	04	85
3.	Mandatory Core Analog and Digital Communication	EC 2XX	3-0-2	04	85
4.	Mandatory Core Digital Integrated Circuits	EC 2XX	3-0-2	04	85
5.	Humanities Professional Ethics, Economics, and Business Management	HU 2XX	3-0-0	03	55
6.	Vocational		0-0-8	04	160 (20 x 8)
				23	555

UG NEP 2020 Proposed Curriculum Scheme

Year	Subjects	Proposed / Recommended subject	Code	Schemes	Credits	Notional hours
1 st of UG (I and II Semester)	First Semester					
	CBCS-1	Mandatory Core Introduction to Computer Science	CS101	3-1-0	4	70
	CBCS-2	Mandatory Core Introduction to Programming	CS103	3-0-2	4	85
	CBCS-3	Other Engineering Digital Electronics & Logic Design	EC103	3-0-2	4	85
	CBCS-4	Other Engineering Basics of Electrical Engineering	EE105	3-0-2	4	85
	CBCS-5	Mathematics Fundamentals of Engineering Mathematics	MA115	3-1-0	4	70
	Vocational	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	555
	Second Semester					
	CBCS-1	Mandatory Core Data Structures	CS102	3-1-2	5	100
	CBCS-2	Mandatory Core Web Programming and Python	CS104	3-0-2	4	85
	CBCS-3	Other Engineering Energy & Environmental Engineering	CEME 106	3-0-2	4	85
	CBCS-4	Mathematics Linear Algebra and Statistics	MA116	3-1-0	4	70
	CBCS-5	Humanities English & Professional Communication	HU110	3-0-0	3	65
	Vocational	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
				20	565	
				40	1120	
Exit Level 1: Certificate in Programming Skills						

2 nd of UG	Third Semester					
	CBCS-1	Mandatory Core Computer Organization	CS203	3-1-0	4	70
	CBCS-2	Mandatory Core Database Management Systems	CS205	3-1-2	5	100
	CBCS-3	Mandatory Core Design and Analysis of Algorithms	CS207	3-1-2	5	100
	CBCS-4	Optional Core Object Oriented Programming	CS209	3-0-2	4	85
	CBCS-5	Mathematics Discrete Mathematics	CS201	3-1-0	4	70
					22	425
	Fourth Semester					
	CBCS-1	Mandatory Core Microprocessor and Interfacing Techniques	CS202	3-1-2	5	100
	CBCS-2	Mandatory Core Operating Systems	CS204	3-1-2	5	100
	CBCS-3	Mandatory Core Computer Networks	CS206	3-0-2	4	85
	CBCS-4	Mandatory Core Automata and Formal Languages	CS208	3-1-0	4	70
	CBCS-5	Optional Core Information Security and Cryptography	CS210	3-0-2	4	85
	Vocational	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					22	600
					44	1025
Exit Level 2: Diploma in Computer Science and Engineering						
3 rd of UG	Fifth Semester					
	CBCS-1	Mandatory Core System Software	CS301	3-0-2	4	85
	CBCS-2	Optional Core Machine Learning	CS303	3-0-2	4	85
	CBCS-3	Management Professional Ethics, Economics and Business Management	HU301	3-1-0	4	70
	CBCS-4	Elective Software Engineering,	CS3AA	3-0-2	4	85

		Modern Cryptography, Unmanned Aerial Vehicles Information Systems				
	CBCS-5	Elective Data Structures and Algorithms /Network Security/Social Network Analysis	CS3WW	3-0-2	4	85
					20	410
	Sixth Semester					
	CBCS-1	Optional Core Artificial Intelligence	CS302	3-0-2	4	85
	CBCS-2	Optional Core Distributed Computing	CS304	3-0-2	4	85
	CBCS-3	Optional Core Cyber Physical Systems	CS306	3-0-2	4	85
	CBCS-4	Elective High Performance Computing/ Unmanned Aerial Vehicles Information Systems	CS3BB	3-0-2	4	85
	CBCS-5	Elective Computer Networks for minor degree /Blockchain Technology/Data Science	CS3XX	3-0-2	4	85
	Vocational	(Optional) (Mandatory for Exit)	VSXXX	0-0-8	4	160 (20 x 8)
					20	585
					40	995
Exit Level 3: B.Sc. in Computer Science and Engineering						
4 th of UG	Seventh Semester					
	CBCS-1	Management Innovation, Incubation and Entrepreneurship	HUXXX	3-1-0	4	70
	CBCS-2	Elective Cyber Laws and Forensic Tools, Big Data Analytics, Unmanned Aerial Vehicles Forensics	CS4CC	3-0-2	4	85
	CBCS-3	Elective Software Security and Defensive Programming, System Analysis and	CS4DD	3-0-2	4	85

		Simulation				
	CBCS-4	Elective Introduction to Operating Systems/Security in Cyber Physical Systems/Deep Learning	CS4YY	3-0-2	4	85
	CBCS-5	Elective Cyber Physical Systems for Minor degree/Machine Learning for Security/Natural Language Processing	CS4ZZ	3-0-2	4	85
					20	410
	Eighth Semester					
	Vocational / Professional	Professional Training	CS402	0-0-40	20	800 (20 x 40)
					20	800
					40	1210
Exit Level 4: B.Tech. in Computer Science and Engineering						

Electives (Specialization in Cyber Security)	Electives (Specialization in AI and ML)
<ul style="list-style-type: none"> • Network Security • Blockchain Technology • Security in Cyber Physical Systems • Machine Learning for Security 	<ul style="list-style-type: none"> • Social Network Analysis • Data Science • Deep Learning • Natural Language Processing
Electives (Minor in Computer Science and Engineering) <ul style="list-style-type: none"> • Data Structure and Algorithms • Computer Networks for minor degree • Introduction to Operating Systems • Cyber Physical Systems 	

List of Elective Courses:

Sr. No.	Course	Code
1	Software Engineering	CS3AA

2	Modern Cryptography	CS3AA
3	Unmanned Aerial Vehicles Information Systems	CS3AA
4	Data Structures and Algorithms	CS3WW
5	Network Security	CS3WW
6	Social Network Analysis	CS3WW
7	High Performance Computing	CS3BB
8	Unmanned Aerial Vehicles Information Systems	CS3BB
9	Computer Networks for minor degree	CS3XX
10	Blockchain Technology	CS3XX
11	Data Science	CS3XX
12	Cyber Laws and Forensic Tools	CS4CC
13	Big Data Analytics	CS4CC
14	Unmanned Aerial Vehicles Forensics	CS4CC
15	Software Security and Defensive Programming	CS4DD
16	System Analysis and Simulation	CS4DD
17	Introduction to Operating Systems	CS4YY
18	Security in Cyber Physical Systems	CS4YY
19	Deep Learning	CS4YY
20	Cyber Physical Systems for Minor degree	CS4ZZ
21	Machine Learning for Security	CS4ZZ
22	Natural Language Processing	CS4ZZ

Department of Chemistry
Implementation of National Education Policy (NEP)

Annexure 1.2

Programme: Five Years Integrated M.Sc. Chemistry

Year	Subjects	Code	Schemes	Credits	Notional hours	Evaluation Scheme				Exit-Equivalence for awarding a degree	Entry-Requirement
						Th.	Tu.	P	Total		
1 st	Mandatory Core Stoichiometry, Solutions and Gases	CY 101	3-1-2	5	100	100	25	50	175	UG-Certificate in Chemical Sciences	1. 12 th and JEE
	Mandatory Core Atomic Structure and Chemical Bonding	CY 103	3-0-2	4	85	100	00	50	150		
	Skill enhancement course Qualitative and Quantitative Analysis	CY 105	3-0-2	4	85	100	00	50	150		
	Value Addition Course Mathematics	MA XXX	3-1-0	4	70	100	25	00	125		
	Ability Enhancement Course English and Professional Communication	HU XXX	3-0-0	3	55	100	00	00	100		
	Vocational (Optional) (mandatory for exit) Laboratory techniques and safety	CY 107	0-0-10	5	200 (20 X 10)	00	00	100	100		
				25	595						
	Mandatory Core Fundamentals of Organic Chemistry	CY 102	3-1-2	5	100	100	25	50	175		
	Mandatory Core Basic Industrial Chemistry	CY 104	3-1-2	5	100	100	25	50	175		
	Value Addition Course Fundamentals of Computer Programming	CS XXX	3-0-2	4	85	100	00	50	150		
	Value Addition Course Physics	PH XXX	3-0-0	3	55	100	00	00	100		
	Ability Enhancement Course Holistic Empowerment and Human values	HU XXX	3-0-0	3	55	100	00	00	100		
	Vocational	CY 106	0-0-10	5	200 (20 X 10)	00	00	100	100		

	(Optional) (mandatory for exit) Industrial Safety and Training										
				25	595						
				50	1190						
2 nd	Mandatory Core Chemistry of Elements	CY 201	3-1-2	5	100	100	25	50	175	UG-Diploma in Chemical Sciences	1. 12th 2. UG-Certificate in Chemical Sciences or equivalent and 1 year of Vocational or Professional experience 3. Screening based on Branch Specific Prerequisite (written test based on the following subject, Stoichiometry, solutions and gases; Fundamentals of Organic Chemistry; Qualitative and quantitative analysis; Atomic structure and chemical bonding; Basic Industrial Chemistry) 4. Candidate must have sufficient knowledge in at least 50% of the mandatory subjects of the first year of five Years Integrated M.Sc. programme in Chemistry at SVNIT.
	Mandatory Core Hydrocarbons & their Functional Groups	CY 203	3-1-2	5	100	100	25	50	175		
	Mandatory Core State and Properties of Matter	CY 205	3-1-2	5	100	100	25	50	175		
	Value Addition Course Environmental Science	CY 207	3-0-2	4	85	100	00	50	150		
	Skill Enhancement Course Quality Control and Quality Assurance	CY 209	3-0-0	3	55	100	00	00	100		
	Vocational (Optional) (mandatory for exit) Chemical Plant Operations	CY 211	0-0-10	5	200 (20 X 10)	00	00	100	100		
				27	640						
	Mandatory Core Coordination and Bioinorganic Chemistry	CY 202	3-1-2	5	100	100	25	50	175		
	Mandatory Core Stereochemistry & Reaction Mechanism	CY 204	3-1-2	5	100	100	25	50	175		
	Mandatory Core Equilibrium and Changes	CY 206	3-1-2	5	100	100	25	50	175		
	Discipline specific elective Dyes and Drugs	CY 208	3-0-0	3	55	100	00	00	100		
	Skill Enhancement course Biomolecules and Cell Biology	CY 210	3-0-0	3	55	100	00	00	100		
	Vocational (Optional) (mandatory for exit) Laboratory Demonstration of Quality Control and Quality Assurance Practicals	CY 212	0-0-10	5	200 (20 x 10)	00	00	100	100		
				26	610						

				53	1250						
3 rd	Mandatory Core Organometallic Chemistry	CY 301	3-0-4	5	115	100	00	100	200	B.Sc. in Chemistry (Degree will be awarded to the students during exit if any and to all the eligible students of the existing programme upon their request)	1. 12th 2. UG-Diploma in Chemical Sciences or equivalent and 1 year of Vocational or Professional experience 3. Screening based on Branch Specific Prerequisite (written test on subject Stoichiometry, solutions and gases; Fundamentals of Organic Chemistry; Atomic structure and chemical bonding; Chemistry of elements; Hydrocarbons & their functional groups; State and Properties of Matter; Coordination and Bioinorganic Chemistry; Stereochemistry & Reaction Mechanism) 4. Candidate must have sufficient knowledge in at least 50% of the mandatory subjects each of first and second year of five Years Integrated M.Sc. programme in Chemistry at SVNIT.
	Mandatory Core Pericyclic Reactions and Photochemistry	CY 303	3-0-4	5	115	100	00	100	200		
	Mandatory Core Analytical Chemistry	CY 305	3-0-4	5	115	100	00	100	200		
	Discipline specific Elective Physical Methods of Structure Determination	CY 307	3-0-0	3	55	100	00	00	100		
	Skill enhancement course Unit Process in Chemical Industries	CY 309	3-0-0	3	55	100	00	00	100		
	Vocational (Optional) (mandatory for exit) Purification of Liquids and Solids	CY 311	0-0-10	5	200 (20 X 10)	00	00	100	100		
				26	655						
	Mandatory Core Spectroscopic Techniques-I	CY 302	3-0-4	5	115	100	00	100	200		
	Mandatory Core Molecules in Motion and Reaction Dynamics	CY 304	3-1-2	5	100	100	25	50	175		
	Skill enhancement course Polymer Chemistry	CY 306	3-0-4	5	115	100	00	100	200		
	Discipline specific elective Chemistry in Industries	CY 308	3-0-0	3	55	100	00	00	100		
	Discipline specific elective Materials Chemistry	CY 310	3-0-0	3	55	100	00	00	100		
	Vocational (Optional) (mandatory for exit) Mini Project-I	CY 312	0-0-10	5	200 (20 x 10)	00	00	100	100		
				26	640						
				52	1295						
4 th	Mandatory Core Advanced Inorganic Chemistry	CY 401	3-0-4	5	115	100	00	100	200	B.Sc. Honours. - B.Sc. Honours. in Chemistry	1. 12th 2. B.Sc. Chemistry and 1 year of Vocational or
	Mandatory Core	CY 403	3-0-4	5	115	100	00	100	200		

	Methods in Organic Synthesis									(Degree will be awarded to the students during exit if any and to all the eligible students of the existing programme upon their request)	Professional experience 3. Screening based on Branch Specific Prerequisite (written test on the subject: Stoichiometry, solutions and gases; Fundamentals of Organic Chemistry; Atomic structure and chemical bonding; Chemistry of elements; Hydrocarbons & their functional groups; State and Properties of Matter; Coordination and Bioinorganic Chemistry; Stereochemistry & Reaction Mechanism; Organometallic Chemistry; Pericyclic Reactions and Photochemistry; Analytical Chemistry; Spectroscopic Techniques; Molecules in Motion and Reaction Dynamics) 4. Candidate must have sufficient knowledge in at least 50% of the mandatory subjects each of the first, second and third year of Five Years Integrated M.Sc. programme in Chemistry at SVNIT.
	Mandatory Core Spectroscopic Techniques-II	CY 405	3-1-0	4	70	100	25	00	125		
	Skill enhancement course Computational Chemistry	CY 407	3-0-4	5	115	100	00	100	200		
	Discipline specific Elective Surfactant Chemistry/Chemistry of Nanomaterials	CY 409/ CY 411	3-0-0	3	55	100	00	00	100		
	Vocational (Optional) (mandatory for exit) Mini Project-II	CY 413	0-0-10	5	200 (20 X 10)	00	00	100	100		
				27	670						
	Mandatory Core Symmetry, Spectra & Magnetism	CY 402	3-1-0	4	70	100	25	00	125		
	Mandatory Core Chemistry of Natural Products	CY 404	3-0-4	5	115	100	00	100	200		
	Mandatory Core Physical Aspects of Molecular Spectroscopy	CY 406	3-1-0	4	70	100	25	00	125		
	Skill enhancement course Purification and Separation Techniques	CY 408	3-0-4	5	115	100	00	100	200		
	Discipline specific Elective Green Chemical Processing / C-H Functionalization	CY 410/ CY 412	3-0-0	3	55	100	00	00	100		
	Vocational (Optional) (mandatory for exit) Mini Project-III	CY 414	0-0-10	5	200 (20 X 10)	00	00	100	100		
				26	625						
				52	1295						
5 th	Mandatory Core Quantum Chemistry	CY 501	3-1-0	4	70	100	25	00	125	M.Sc.-Five Years Integrated M.Sc. Chemistry (For the students in the existing	1. 12th 2. B.Sc. Honors Chemistry or equivalent and 1 year of Vocational or Professional experience 3. Screening based on
	Mandatory Core Heterocycles and Organic Synthesis	CY 503	3-1-0	4	70	100	25	00	125		
	Skill enhancement course Research Methodology in Chemistry	CY 505	3-0-0	3	55	100	00	00	100		

Discipline specific elective Catalysis /Medicinal Chemistry	CY 507/ CY 509	3-0-0	3	55	100	00	00	100	programme since the beginning of the programme) / M.Sc. Chemistry (For students admitted after the first year of the existing programme)	Branch Specific Prerequisite (written test on the subjects - Chemistry of elements; Hydrocarbons & their functional groups; State and Properties of Matter; Coordination and Bioinorganic Chemistry; Stereochemistry & Reaction Mechanism; Organometallic Chemistry; Pericyclic Reactions and Photochemistry; Analytical Chemistry; Spectroscopic Techniques; Molecules in Motion and Reaction Dynamics; Advanced Inorganic Chemistry; Methods in Organic Synthesis; Quantum Chemistry; Symmetry, Spectra & Magnetism; Physical Aspects of Molecular Spectroscopy) 4. Candidate must have sufficient knowledge in at least 50% of the mandatory subjects each of the first, second, third and fourth year of Five Years Integrated M.Sc. programme in Chemistry at SVNIT.
Discipline specific elective Supramolecular Chemistry/ Nuclear chemistry	CY 511/ CY 513	3-0-0	3	55	100	00	00	100		
Professional Dissertation-I	CY 515	0-0-10	5	200 (20 X 10)	00	00	100	100		
			22	505						
Professional Dissertation-II	CY 502	0-0-40	20	800 (40 X 20)	00	00	500	500		
			20	800						
Total Credits			250	6155						
Total credits (without vocational)			210	4555						

4. Candidate must have sufficient knowledge in at least 50% of the mandatory subjects each of the first, second, third and fourth year of Five Years Integrated M.Sc. programme in Chemistry at SVNIT.

Pool of the subjects

<ul style="list-style-type: none"> ○ Discipline Specific Core (Mandatory Core) CY 101 Stoichiometry, Solutions and Gases CY 102 Fundamentals of Organic Chemistry CY 103 Atomic Structure and Chemical Bonding CY 104 Basic Industrial Chemistry CY 201 Chemistry of Elements CY 202 Coordination and Bioinorganic Chemistry CY 203 Hydrocarbons & their Functional Groups CY 204 Stereochemistry & Reaction Mechanism CY 205 State and Properties of Matter CY 206 Equilibrium and Changes CY 207 Environmental Science CY 209 Quality Control and Quality Assurance CY 301 Organometallic Chemistry CY 302 Spectroscopic Techniques-I CY 303 Pericyclic Reactions and Photochemistry CY 304 Molecules in Motion and Reaction Dynamics CY 305 Analytical Chemistry CY 401 Advanced Inorganic Chemistry CY 402 Symmetry, Spectra & Magnetism CY 403 Methods in Organic Synthesis CY 404 Chemistry of Natural Products CY 405 Spectroscopic Techniques-II CY 406 Physical Aspects of Molecular Spectroscopy CY 501 Quantum Chemistry CY 503 Heterocycles and Organic Synthesis 	<ul style="list-style-type: none"> ○ Discipline Specific Elective CY 208 Dyes and drugs CY 307 Physical Methods of Structure Determination CY 308 Chemistry in Industries CY 310 Materials Chemistry CY 411 Chemistry of Nanomaterials CY 409 Surfactant Chemistry CY 410 Green Chemical Processing CY 412 C-H Functionalization CY 507 Catalysis CY 509 Medicinal Chemistry CY 511 Supramolecular Chemistry CY 513 Nuclear chemistry
<ul style="list-style-type: none"> ○ Other Departments courses ○ Science PH XXX Physics 	<ul style="list-style-type: none"> ○ Skill enhancement Course CY 105 Qualitative and Quantitative Analysis CY 210 Biomolecules and Cell Biology

MA XXX Mathematics ○ Art and Humanities HU XXX Holistic Empowerment and Human values HU XXX English and Professional Communication ○ Engineering CS XXX Fundamental of Computer Programming	CY 309 Unit Process in Chemical Industries CY 306 Polymer Chemistry CY 407 Computational Chemistry CY 408 Purification and Separation Techniques CY 505 Research Methodology in Chemistry
○ Vocational training CY 107 Laboratory Techniques and Safety CY 106 Industrial Safety and Training CY 211 Chemical Plant Operations CY 212 Laboratory Demonstration of Quality Control and Quality Assurance Practicals CY 311 Purification of Liquids and Solids CY 312 Mini Project-I CY 413 Mini Project-II CY 414 Mini Project-III	○ Institute/ Industry Professional (Experiential learning) CY 515 Dissertation-I CY 502 Dissertation-II

Department of Electronics Engineering, SVNIT, Surat

Curriculum Structure for 1st year and 2nd year for B. Tech. in Electronics and Communication Engineering

Semester - I

Sr. No.	Subjects	Code	Schemes	Credits	Notional hours
1.	Science Semiconductor Physics and Devices	EC 1XX	3-0-0	03	55
2.	Mathematics Mathematics-I	MA 1XX	3-1-0	04	85
3.	Other Engineering Fundamentals of Computer & Programming	CS 1XX	3-0-2	04	85
4.	Other Engineering Basic Electrical Engineering	EE 1XX	3-0-2	04	85
5.	Humanities Holistic Empowerment and Human Values	HU 1XX	3-0-0	03	55
6.	Vocational		0-0-8	04	160 (20 x 8)
				22	525

Semester - II

Sr. No.	Subjects	Code	Schemes	Credits	Notional hours
1.	Mathematics Mathematics-II	MA 1XX	3-1-0	04	85
2.	Mandatory Core Electronic Circuits	EC 1XX	3-0-2	04	85
3.	Mandatory Core Digital Logic Design	EC 1XX	3-0-2	04	85
4.	Other Engineering Network Analysis and Synthesis	EE 1XX	3-0-0	03	55
5.	Humanities English & Professional Communication	HU 1XX	3-0-0	03	55
6.	Vocational		0-0-8	04	160 (20 x 8)
				22	525

Semester - III

Sr. No.	Subjects	Code	Schemes	Credits	Notional hours
1.	Mandatory Core Analog Circuits	EC 2XX	3-0-2	04	85
2.	Mandatory Core Signals and Systems	EC 2XX	3-1-0	04	85
3.	Mandatory Core Microprocessor and Microcontrollers	EC 2XX	3-0-2	04	85
4.	Mandatory Core Principles of Communication Systems	EC 2XX	3-0-2	04	85
5.	Other Engineering Control Systems	EE 2XX	3-0-0	03	55
6.	Vocational		0-0-8	04	160 (20 x 8)
				23	555

Semester - IV

Sr. No.	Subjects	Code	Schemes	Credits	Notional hours
1.	Mandatory Core Statistical Signal Analysis	EC 2XX	3-1-0	04	85
2.	Mandatory Core Linear IC Applications	EC 2XX	3-0-2	04	85
3.	Mandatory Core Electromagnetic Waves	EC 2XX	3-0-2	04	85
4.	Mandatory Core Digital Integrated Circuits	EC 2XX	3-0-2	04	85
5.	Humanities Professional Ethics, Economics, and Business Management	HU 2XX	3-0-0	03	55
6.	Vocational		0-0-8	04	160 (20 x 8)
				23	555

Department of Mathematics and Humanities

Implementation of National Education Policy

Programme: **Five Years Integrated M.Sc.Programme in Mathematics**

Year	Subjects	Code	Schemes	Credits	Notional hours	Evaluation Scheme				Exit-Equivalence for awarding a degree	Entry-Requirement
						Th.	Tu.	P	Total		
1 st	Mandatory Core Foundation Course in Mathematics-I	MA 103	3-1-0	4	70	100	25	00	125	UG-Certificate – UG-Certificate in Mathematical Sciences	1. 12 th and JEE
	Mandatory Core Mathematics-I	MA 101 S1	3-1-0	4	70	100	00	00	100		
	Science Applied Chemistry	CY 104 S1/S2	3-0-2	4	85	100	00	50	150		
	Other Engineering Branch Energy and Environmental Engineering	CEME 106 S1/S2	2-0-4	4	100	100	00	100	200		
	Humanities English and Professional Communication	HU 110 S2/S1	3-0-0	3	65	100	00	00	100		
	Professional Experience Community Project-Part-I (Preliminaries)	MAXXX	0-0-10	5	200 (20 x 10)	00	00	100	100		
				24	590						
	Mandatory Core Foundation Course in Mathematics-I	MAMA 114 S2	3-1-0	4	70	100	25	00	125		
	Mandatory Core Mathematics-II	MA 114 S2	3-1-0	4	70	100	00	00	100		
	Other Branch Fundamental of Computer Programming	CS 109 S2/S1	3-0-2	4	85	100	00	50	150		
	Science	PH 103	3-0-2	4	85	100	00	50	150		

	Mechanics, Lasers and Fiber Optics										
	Humanities Holistic Empowerment and Human values	HU 107 S1/S2	3-0-0	00	65	100	00	00	100		
	Professional Experience Community Project-Part-II	MAXXX	0-0-10	5	200 (20 X 10)	00	00	100	100		
					575						
				21							
				45	1165						
2 nd	Mandatory Core Element of Analysis	MA 201	3-2-0	5	85	100	50	00	150	UG-Diploma - UG-Diploma in Mathematical Sciences	<ol style="list-style-type: none"> 12th. However, preference will be given to the candidates admitted through JEE. UG-Certificate in Mathematical sciences or equivalent and 1 year of Vocational or Professional experience Screening based on Branch Specific Prerequisite (written test based on the following subjects: Calculus, Foundation of Mathematics Course, Ordinary differential equation, Multiple Integral and its application, Basic of Vector calculus) Candidate must have acquired 50% credit of the subjects equivalent to the mandatory subjects of first year of Five Years Integrated M.Sc.programme in
	Mandatory Core Analytical Geometry	MA 203	3-2-0	5	85	100	50	00	150		
	Mandatory Core Discrete Mathematical Structure	MA 205	3-1-0	4	70	100	25	00	125		
	Science Electromagnetic and Relativity	PH 207	3-1-0	4	70	100	25	00	125		
	Humanities English and Professional Communication - II	HU 201	3-0-0	3	65	100	00	00	100		
	Vocational: Mathematical Software-I	MA 207	0-0-10	5	200 (20X 10)	00	00	100	100		
				26	575						
	Mandatory Core Numerical Analysis	MA 202	3-1-2	5	100	100	25	50	175		
	Mandatory Core Linear Algebra	MA 204	3-2-0	5	85	100	50	00	150		
	Optional Core Elementary Number theory	MA 206	3-1-0	4	70	100	25	00	125		
	Optional Core Computational Life Science	MA 208	3-0-0	3	65	100	00	00	100		
	Other Branch Data Structure	CS 210	3-1-2	5	100	100	25	50	175		

											Mathematics at SVNIT
	Vocational Mathematical Software-II	MAXXX	0-0-10	5	200 (20 x 10)	00	00	100	100		
				27	620						
				53	1195						
3 rd	Mandatory Core Ordinary Differential Equations	MA 305	3-2-0	5	85	100	50	00	150	B.Sc. – B.Sc. in Mathematics (Degree will be awarded to the students during exit if any and to all the eligible students of the existing programme upon their request)	<ol style="list-style-type: none"> 12th. However, preference will be given to the candidates admitted through JEE. UG-Diploma in Mathematical science or equivalent and 1 year of Vocational or Professional experience Screening based on Branch Specific Prerequisite (written test on subjects: Element of Analysis, Analytical Geometry, Discrete Mathematical Structure, Numerical Analysis, Linear Algebra, Computational Life Science, Data Structure, Calculus, Foundation of Mathematical Course, Ordinary differential equation, Multiple Integral and its application, Basic of Vector calculus) Candidate must have acquired 50% credit of the subjects equivalent to the mandatory subject each of first and second year of Five Years Integrated M.Sc. programme in
	Mandatory Core Mechanics	MA 303	3-1-0	4	70	100	25	00	125		
	Optional Core Probability and Statistics-I	MA 301	3-2-0	5	85	100	50	00	150		
	Other Branch Computer Networks	CS 303	3-1-2	5	100	100	25	50	175		
	Elective Advance Mathematical Methods/Stochastic Differential Equations	MA 361/ MA 363	3-1-0	4	70	100	25	00	125		
	Vocational Mini Project-I Preliminary Part-I Preliminary	MAXXX	0-0-10	5	200 (20 X 8)	00	00	100	100		
				28	610						
	Mandatory Core Complex Analysis	MA 302	3-2-0	5	85	100	50	00	150		
	Mandatory Core Continuum Mechanics	MA 304	3-1-0	4	70	100	25	00	125		
	Optional Core Metric Space	MA 306	3-1-0	4	70	100	25	00	125		
	Other Branch Artificial Intelligence	CS 308	3-1-2	5	100	100	25	50	175		
	Elective Integral and Wavelet Transform/ Mathematical Finance / Fuzzy Set theory	MA 362/ MA 364/	3-1-0	4	70	100	25	00	125		

		MA 366									Mathematics at SVNIT
	Vocational Mini Project-I-Part-II	MAXXX	0-0-10	5	200 (20 x 10)	00	00	100	100		
				27	595						
				55	1205						
4 th	Mandatory Core Topology	MA 401	3-1-0	4	70	100	25	00	125	B.Sc. Honors. - B.Sc. Honors. in Mathematics (Degree will be awarded to the students during exit if any and to all the eligible students of the existing programme upon their request)	<ol style="list-style-type: none">12th. However, preference will be given to the candidates admitted through JEE.B.Sc. Mathematics and 1 year of Vocational or Professional experienceScreening based on Branch Specific Prerequisite (written test on subjects: Element of Analysis, Analytical Geometry, Discrete Mathematical Structure, Numerical Analysis, Linear Algebra, Computational Life Science, Data Structure, Probability and Statistics-I, Mechanics, Ordinary Differential Equations, Complex Analysis, Continuum Mechanics, Metric Space, Element of Analysis, Analytical Geometry, Discrete Mathematical Structure, Numerical Analysis, Linear Algebra, Computational Life Science, Data Structure, Calculus, Foundation of Mathematical
	Mandatory Core Abstract Algebra	MA 403	3-1-0	4	70	100	25	00	125		
	Mandatory Core Fluid Dynamics	MA 405	3-2-0	5	85	100	50	00	150		
	Optional Core Optimization Techniques	MA 407	3-2-0	5	85	100	50	00	150		
	Elective Sobolev Space / Data Science/ Block Chain Technology	MA 421/ CS 491/ CS 423	3-2-0	5	85	100	50	00	150		
	Vocational Mini Project-II Preliminary Part-I	MAXXX	0-0-10	5	200 (20 X 10)	00	00	100	100		
				28	595						
	Mandatory Core Functional Analysis	MA 402	3-1-0	4	70	100	25	00	125		
	Mandatory Core Higher Transcendental Functions	MA 404	3-1-0	4	70	100	25	00	125		
	Mandatory Core Partial Differential Equations	MA 406	3-2-0	5	85	100	50	00	150		
	Optional Core Calculus of Variations & Integral Equations	MA 408	3-2-0	5	85	100	50	00	150		
	Elective Multi Objective Optimization/ Natural Language Processing	MA 422 / CS 492	3-0-0	5	65	100	00	00	100		

	Vocational Mini Project-II Part-II	MAXXX	0-0-10	5	200 (20 X 10)	00	00	100	100		Course, Ordinary differential equation, Multiple Integral and its application, Basic of Vector calculus) 4. Candidate must have acquired 50% credit of the subjects equivalent to the mandatory subjects each of first, second and third year of Five Years Integrated M.Sc. programme in Mathematics at SVNIT
				28	575						
				56	1170						
5 th	Mandatory Core Measure Theory and Integration	MA 501	3-1-0	4	70	100	25	00	125	M.Sc.-Five Years Integrated M.Sc. Mathematics (For the students in the existing Five years Integrated M.Sc. programme in Mathematics since beginning of the programme without any exit)	1. 12 th . However, preference will be given to the candidates admitted through JEE. 2. B.Sc. Honors / B.Sc. (4 year programme) Mathematics or equivalent and 1 year of Vocational or Professional experience 3. Screening based on Branch Specific Prerequisite (written test on the subjects: Topology, Abstract Algebra, Fluid Dynamics, Optimization Techniques, Functional Analysis, Higher Transcendental Functions, Partial Differential Equations, Calculus of Variations & Integral Equations, Element of Analysis, Analytical Geometry, Discrete
	Mandatory Core Mathematical Modelling and Simulation	MA 505	3-1-2	5	100	100	25	50	175		
	Optional Core Probability and Statistics-II	MA 503	3-1-0	4	70	100	25	00	125		
	Humanities Academic Writing	HU 501	3-0-0	5	65	100	00	00	100		
	Elective Advance Operations Research/ Fluid Dynamics in Porous Media/ Advanced Numerical Analysis / Linear Operator and Approximation Theory	MA 521/ MA 523/ MA 525/ MA 527	3-1-0	4	70	100	25	00	125		
	Professional Dissertation Preliminaries	MA 507	0-0-8	4	160 (20 X 8)	00	00	100	100	M.Sc. Mathematics (For students admitted after first year of the existing	
				26	535						

	Professional Dissertation	MA 502	0-0-40	20	(40 X 20)= 800	00	00	500	500	programme)	<p>Mathematical Structure, Numerical Analysis, Linear Algebra, Computational Life Science, Data Structure, Probability and Statistics-I, Mechanics, Ordinary Differential Equations, Complex Analysis, Continuum Mechanics, Metric Space, Element of Analysis, Analytical Geometry, Discrete Mathematical Structure, Numerical Analysis, Linear Algebra, Computational Life Science, Data Structure, Calculus, Foundation of Mathematical Course, Ordinary differential equation, Multiple Integral and its application, Basic of Vector calculus)</p> <p>4. Candidate must have acquired 50% credit of the subjects equivalent to the mandatory subjects each of first, second, third and fourth year of Five Years Integrated M.Sc. programme in Mathematics at SVNIT</p>
				20	800						
				46	1335						

Pool of the subjects:

<p>○ Core Subjects Discipline-wise (Mandatory)</p> <p>MAMA 103 S1 Foundation Course in Mathematics-I MA 101 S1 Mathematics-I MAMA 114 S2 Foundation Course in Mathematics-I MA 114 S2 Mathematics-II MA 201 Element of Analysis MA 203 Analytical Geometry MA 205 Discrete Mathematical Structure MA 202 Numerical Analysis MA 204 Elementary Number theory MA 305 Ordinary Differential Equations MA 303 Mechanics MA 302 Complex Analysis MA 304 Continuum Mechanics MA 401 Topology MA 403 Abstract Algebra MA 405 Fluid Dynamics MA 406 Partial Differential Equations MA 402 Functional Analysis MA 404 Higher Transcendental Functions MA 501 Measure Theory and Integration MA 505 Mathematical Modelling and Simulation</p>	<p>○ Core Subjects Discipline-wise (Optional)</p> <p>MA 206 Elementary Number theory MA 208 Computational Life Science MA 301 Probability and Statistics-I MA 306 Metric Space MA 407 Optimization Techniques MA 408 Calculus of Variations & Integral Equations MA 503 Probability and Statistics-II</p>
<p>○ Other Engineering Subjects</p> <p>CEME 106 S1/S2 Energy and Environmental Engineering CS 109 S2/ S1 Fundamental of Computer Programming CS 210 Data Structure CS 303 Computer Networks CS 308 Artificial Intelligence</p>	<p>○ Vocational training</p> <ul style="list-style-type: none"> ● Institute based <ul style="list-style-type: none"> ○ Python Programming ○ C/C++ Programming ○ Java Programming ○ R Programming ○ MATLAB ○ MAPLE ● Industry based

	<ul style="list-style-type: none"> ○ R Programming ○ MATLAB ○ MAPLE
<ul style="list-style-type: none"> ○ Science <p>CY 104 S1/S2 Applied Chemistry PH 103 Mechanics, Lasers and Fiber Optics PH 207 Electromagnetic and Relativity</p>	<ul style="list-style-type: none"> ○ Professional (Experiential learning) <ul style="list-style-type: none"> • Institute based <ul style="list-style-type: none"> ○ Mini project / Sponsored project ○ Dissertation • Industry based <ul style="list-style-type: none"> ○ Training
<ul style="list-style-type: none"> ○ Art and Humanities <p>HU 110 S2/S1 English and Professional Communication HU 107 S1/S2 Holistic Empowerment and Human values HU 201 English and Professional Communication - II HU 501 Academic Writing</p>	<ul style="list-style-type: none"> ○ Elective – Specialization Subjects <p>MA 361 Advance Mathematical Methods MA 363 Stochastic Differential Equations MA 362 Integral and Wavelet Transform MA 364 Mathematical Finance MA 366 Fuzzy Set theory MA 421 Sobolev Space CS 491 Data Science CS 423 Block Chain Technology MA 422 Multi Objective Optimization CS 492 Natural Language Processing MA 521 Advance Operations Research MA 523 Fluid Dynamics in Porous Media MA 525 Advanced Numerical Analysis MA 527 Linear Operator and Approximation Theory</p>

Department of Mathematics and Humanities

Implementation of National Education Policy

Programme: **Ph.D.**

Ph.D .	Mathematics	<p><u>Qualification:</u> Master Degree in Mathematics / Mathematics and Computing with 60% marks/6.5 CGPA (55% marks/6.0 CGPA for SC/ST). Further, for FIR position, apart from above qualification, GATE / NET – Mathematical Science.</p>
Ph.D .	Management	<p><u>Qualification:</u> MBA (Master of Business Administration) / MMS (Master of Management Studies) / MHRD (Master of Human Resource Development) / MPA (Master of Public Administration)/ PG Degree or Diploma in Management equivalent to MBA approved by the Government body (AICTE / UGC /AIU) / M.Tech. (Industrial Engineering and Management) / Industrial Engineering /Industrial Management / Management / Engineering Management) / M.Com. / CS/CA with 60% marks/6.5 CGPA (55% marks/6.0 CGPA for SC/ST).</p> <p>Further for FIR position, apart from above qualification, CAT with minimum of 75 percentile (60 percentile for SC / ST) conducted by IIMs / NET – Management (including Business Administration and Management /Marketing / Marketing Management /Industrial Relations and Personnel Management / Personnel Management / Financial Management /Co-operative Management) / NET - Labour Welfare/Personnel Management/Industrial Relations/ Labour and Social Welfare/Human Resource Management / NET – Commerce.</p>
Ph.D .	English	<p><u>Qualification:</u> M.A. – English with 60% marks/6.5 CGPA (55% marks/6.0 CGPA for SC/ST). Further for FIR position, apart from above qualification, NET – English.</p>

MEMORANDUM OF UNDERSTANDING **(MoU)**

BETWEEN



**SARDAR VALLABHBHAI
NATIONAL INSTITUTE OF TECHNOLOGY
SURAT**

&



भारतीय प्रौद्योगिकी
संस्थान जम्मू
**INDIAN INSTITUTE OF
TECHNOLOGY JAMMU**

**INDIAN INSTITUTE OF TECHNOLOGY
JAMMU**

FOR

**ACADEMIC, RESEARCH COLLABORATIONS &
STUDENTS EXCHANGE PROGRAMMES**

MEMORANDUM OF UNDERSTANDING

BETWEEN

**SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY,
SURAT**

AND

INDIAN INSTITUTE OF TECHNOLOGY, JAMMU

This is a Memorandum of Understanding (MoU) dated 20th February, 2023

between

Sardar Vallabhbhai National Institute of Technology, Surat (SVNIT, Surat), a premier academic institution of Repute, incorporated under National Institute of Technology Act, 2007, having its permanent campus and office at **SVNIT, Ichchhanath, Dumas Road, Surat - 395007 Gujarat**

and

The Indian Institute of Technology Jammu is recognized as an “Institute of National Importance” under the “Institutes of Technology Act” of 1961. IIT Jammu is an autonomous public higher education Institute funded by the Government of India, and functions under the governance of the IIT Council. IIT Jammu was inaugurated on 6th August 2016 having its permanent campus and office at **IIT Jammu, Jagti, NH-44 , PO Nagrota, Jammu - 181 221 J&K**

Sardar Vallabhbhai National Institute of Technology, Surat (SVNIT, Surat) and Indian Institute of Technology Jammu (IIT Jammu) have agreed to the following protocols governing their collaboration on academic and research activities.

1.Scope

The scope of collaboration on academic and research activities in this Memorandum of Understanding includes the following categories.

- (i) Academic and Research collaboration in the areas of mutual interest. It is expected that this collaboration will in due course lead to collaborative research projects, joint supervision of PhD students, organization of joint workshops and seminars, etc.
- (ii) Exchange of students and faculty, exchange of academic information, scholarly information, materials and publications;
- (iii) Admission of SVNIT, Surat students for direct PhD /early PhD at IIT Jammu / Joint PhD/PG, subject to the existence of the policy approved by the appropriate body of the host institution. The applicable rules and regulations shall be as per a separate Memorandum of Agreement to be approved by the respective Senates of both the institutes.
- (iv) Creating a shared pool of faculty members in each basic discipline at IIT Jammu and the SVNIT Surat. Such a shared pool is aimed to allow the expertise of the faculty members at one institute to be used for teaching courses, joint research, joint project proposal submission and other academic activities at the other institute. The modalities to be followed for the purpose shall be laid out as per a separate Memorandum of Agreement to be approved by both the institutes.

2. Research Collaboration

Faculty from both Institutions will collaborate in the supervision of exchange students and in joint research in discipline of mutual interest. All such joint research activities will be governed by the terms as given below:

- 2.1** Proposals for collaborative research work under this Memorandum will be submitted with the prior approval of the Head of each institution, or his/her nominee.
- 2.2** Each institution will nominate one of its members as its representative in charge of the cooperative programme. Individual programme of work under this Memorandum will be jointly planned and conducted by the nominees of both Institutes.
- 2.3** Progress of work of any individual programme will be reviewed and approved by designated authorities of both Institutes.
- 2.4** The final approval of any project will depend on the availability of guaranteed support funds.
- 2.5** Neither SVNIT, Surat nor IIT Jammu will be held responsible for any liability to the other party, and neither party shall be required to purchase any insurance against loss or damage to any property due to activities to which this agreement relates.
- 2.6** Every collaboration will have its own agreement/contract which addresses issues such as IPR, funding pattern, usage policies of research facilities, disclosure of information etc.

3. Students and Faculty Exchange

Both the Institutes will encourage exchange of B.Tech, M.Tech students, and faculty according to the terms laid out here. It is desired by both the parties that there will be significant flow of students/faculty in both directions.

- 3.1** Students under the exchange programme will be classified as special exchange students. Special exchange students will be permitted to take courses on credit/audit, as well as participate in research activities/internships/project work.
- 3.2** In any case, the consent of the teacher/project supervisors/research supervisors is required. Such consent will take into account among other things whether the student has pre-requisites for the course/project.
- 3.3** Neither institution will require admission nor tuition fees of exchange students for short duration; however, they will have to pay the lodging and boarding charges. The exchange visit of students for a semester or beyond will be decided based on the terms and conditions mutually decided by both the parties.
- 3.4** Course credits and grades earned will be determined by the home institution based on the grade report from the host institution.
- 3.5** The number of students and duration of stay will be worked out on a case to case basis.

- 3.6** Participants may not spend more than one year normally in the exchange programme.
- 3.7** Participants will be subjected to the rules and regulations of the host institution and availability of the resources.
- 3.8** The faculty of SVNIT, Surat may also apply for suitable postdoc positions/any other opportunities available at IIT Jammu subject to other terms and conditions of SVNIT, Surat for relieving the faculty.

Selection and Nomination

The selection and nomination of students is open throughout the academic year. The student nomination should be accompanied by

- (i) Curriculum vitae
- (ii) Statement of aptitude from a member of the student's school/faculty.
- (iii) A specific outline of the programme of study at the host institution and a statement of objectives of the students.

When a nomination is forwarded by the home institution, it is presumed that the sending Institution considers the students suitable for the proposed program and consents to send the students if selected by the host institution.

The host institution will evaluate the nominations and determine their suitability for selection under the student Exchange Programme.

Where the exchange student is pursuing a research or implementation project as part of the UG/PG/PhD, (or equivalent) degree programme, the host institution will provide a suitable faculty member to jointly assist (along with supervisor in the parent Institution) the exchange student in formulating research project or jointly supervising the exchange student in the event that a research project has already been identified.

The host institution will inform the home institution of any academic or other problems that may arise during the period of student's residence in the host institution. The host institution with the home institution will deal with such problems.

4. Direct Ph.D Admission

Providing an opportunity to the students currently pursuing Bachelor of Technology (B.Tech.) to explore the option to undertake courses in IIT Jammu and be considered for early admission to the PhD programme at IIT Jammu.

This scheme is intended to enable meritorious Sardar Vallabhbhai National Institute of Technology, Surat (SVNIT, Surat) B.Tech students to carry out part of their studies including project work at IIT Jammu and offer an opportunity for direct admission to PhD without the need to qualify GATE or any other national level examination. This will enable **"early admission" to PhD for SVNIT, Surat B.Tech** students as early as at the end of their 6th semester. It is envisaged that this scheme will also help SVNIT, Surat students to enhance their chances for qualifying for the PMRF fellowship for PhD at IIT Jammu.

- 4.1. Under this scheme, SVNIT, Surat students who have a CGPA of 7.5 at the end of their sixth semester (three years), will be eligible to apply for a project in summer and complete their fourth year (7th and 8th semesters), at IIT Jammu, and then be considered for an early admission into the PhD program at IIT Jammu, subject to maintaining an overall CGPA of 7.5 in UG degree.
- 4.2. All applications will be received through a portal set up for this purpose. They will submit their transcript, and other academic records and achievements, and documentary evidence of any research or internship experience.
- 4.3. Upon selection, through a selection committee set up for the purpose, the students will have an offer of admission to the PhD program. The students are expected to demonstrate sufficient merit in course work, project work and/or research during their 7th and 8th semesters of B.Tech to continue, to join the PhD program. If the performance of the students is not up to the mark as per the guidelines of IIT Jammu, the students will be sent back to SVNIT, Surat with the credits earned.
- 4.4. Students will actually join the PhD program only after completion of all graduation requirements at SVNIT, Surat which would be typically in the month of July. All shortlisting criteria and admission criteria must be satisfied by the student at the time of joining as well. Requirement of GATE is waived off, since the student will enter IIT Jammu with a minimum CGPA of 7.5.
- 4.5. During the stay in IIT Jammu, the student will have the status of Visiting Student, and will enjoy all the privileges of a full-time student in IIT Jammu.
- 4.6. During the stay in IIT Jammu, the student may take courses to satisfy the credit requirements for their B.Tech registration in their parent institution (SVNIT, Surat). IIT Jammu will certify the completion of the courses and the grades obtained in them including project work done at IIT Jammu.
- 4.7. In all academic/project work undertaken in IIT Jammu, transcript will be provided with relevant credits, however, consideration of these credits and mapping to the letter grades will be up to SVNIT, Surat as per their grading system. Students may also undertake additional credits as Pre-Ph.D. courses for their PhD program, during their stay (in a regular semester) at IIT Jammu.
- 4.8. During their stay in IIT Jammu as a Visiting Student, IIT Jammu will not be charging any academic fees to the student, except fixed charges as applicable, since these students will be paying their regular academic fees in their parent institution. Being B.Tech degree students, IIT

Jammu will be providing either on-campus or off-campus hostel accommodation during the one-year period. Hostel fees will be charged at regular rates.

- 4.9. Students coming under this program will not be entitled for participation in the Training & Placement process in IIT Jammu or SVNIT, Surat, once they register as full-time PhD students. This will be clearly stated in their offer of admission.

5. Commencement, renewal, termination and amendment

This MoU will come into force upon affixing of the signatures of the representatives of the partner institutions and will remain in effect for five (5) years. This MoU may be renewed upon its expiry, with the agreement of both the partner institutions. If either partner institution wishes to terminate the MoU at the end of five years, it must notify the other institution not less than six months prior to the expiry of the MoU.

This MoU or its renewal and the actions taken under it may be reviewed at any time. Modifications may be made by mutual agreement and any amendment or extension to the agreement may be formalized by the exchange of letters between the two parties.

Signed by

Signed by

**Director
Indian Institute of Technology, Jammu
J&K**

**Director
Sardar Vallabhbhai National Institute of
Technology, Surat
Gujrat**

Date:

Date:



Joint Doctoral Degree Program

Between

Indian Institute of Technology Mandi

and

**Sardar Vallabhbhai National Institute of
Technology, Surat (SVNIT)**

AGREEMENT FOR JOINT DEGREE PROGRAM:

DOCTOR OF PHILOSOPHY

Between

Sardar Vallabhbhai National Institute of
Technology, Surat (SVNIT)

and

INDIAN INSTITUTE OF TECHNOLOGY MANDI

AGREEMENT FOR JOINT DEGREE PROGRAM: Doctor of Philosophy

THIS AGREEMENT is made on DD/MM/YY (Effective Date)

BETWEEN:

1. SVNIT, Surat, an educational institution created by an Act of Parliament and having its principal address at **Surat**.

And

2. INDIAN INSTITUTE OF TECHNOLOGY MANDI, an educational institution created by an Act of Parliament and having its principal address at The Indian Institute of Technology Mandi, Kamand, Himachal Pradesh, 781075, India ("IIT Mandi").

The expression Institution shall mean either IIT Mandi or SVNIT, Surat **Party** means a party to this Agreement and **Parties** means both parties to this Agreement.

WHEREAS:

1. On **DD/MM/YY** the Parties entered into this Agreement to develop academic and student exchange through a Joint Degree Program (JDP) of Doctor of Philosophy (PhD) whereby students who successfully complete the JDP will be awarded a joint degree for the one thesis with the testamurs/certificates from each Institution clearly indicating the joint nature of the degrees as outlined in Clause 13.
2. By entering into this Agreement, the Parties agree to offer Joint Degree Programs at PhD level in all areas of research in accordance with the terms and conditions set out in this Agreement.

ABBREVIATIONS

ERP: External Registration Program

JDP: Joint Degree Program

PhD: Doctor of Philosophy

DC: Doctoral Advisory Committee

HoD: Head of the Department

JASC: Joint Admissions Sub-committee

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. JOINT DEGREE PROGRAM STRUCTURE:

1.1. The program offers PhD students enrolled in both institutions the chance to collaborate on a multidisciplinary research project with faculty members and research teams from IIT Mandi and SVNIT, Surat as well as to take advantage of the facilities and professional development opportunities offered by both institutions.

1.2. Candidates have a “Home Institution” where they begin their studies and spend the majority of time. The expectation is that candidates will spend a minimum of 12 months at the other, “Host” Institution; the timing and duration of this will depend on the program of research but in general will be in the second or third year of the degree. Travel to and study at the Host Institution will be subject to the usual requirements of the institute.

1.3. As a condition of enrolment on the PhD JDP, candidates are required to:

- Spend a minimum of one year* (two semesters) enrolled at each institution
 - *Candidates registered as part-time PhD or under External Registration program need to spend the minimum residential requirement criteria of both the institute as mentioned in their ordinances and regulations.
- Undertake a program of progress monitoring and examination that meets the requirements of both institutions
- Comply with the rules, regulations, policies, codes and procedures of both institutions
- Write and submit a thesis for defense by oral examination at the home

institution

1.4. Candidates for the PhD JDP will be enrolled in a PhD program in parallel at both institutions. The supervisory team will comprise academics from both institutions who will provide guidance and support throughout the doctoral program. Candidates will benefit from the research community, networking, and collaborations of the IIT Mandi – SVNIT, Surat. Through enrolment at both institutions, candidates will have access to services and support provided at IIT Mandi and SVNIT, Surat including a variety of professional and personal development opportunities for researchers.

1.5. Candidates may have already commenced a PhD at their Home Institution prior to converting in the joint PhD program through enrolment at the Host Institution. In this case, the candidate will be counted from the start date of the original enrolment at the home institution.

1.6. The primary supervisor shall be from the Home Institution. There must be a Joint supervisor from the Host Institution.

1.7. The PhD JDP includes a tailored program of progress monitoring to fulfil the requirements of both institutions. On successful completion of the program requirements, candidates will be awarded a PhD degree jointly by both the Institutions.

2. PROGRAM GOVERNANCE

2.1. The Program is governed by Deanery of Academics of both the institute. The Dean (Academics) will ensure the Program requirements of each institution are upheld and advise on candidature related matters.

2.2. The Program will be operationalized and managed on a day-to-day basis by the office of the Office of Dean, Academics at IIT Mandi and the Office of Dean, Academic Affairs at SVNIT, Surat

- IIT Mandi – Associate Dean (Research) (Email: adresearch@iitmandi.ac.in)
- SVNIT Surat-

3. APPLICATION AND ADMISSIONS

3.1. The admissions process will be managed by the IIT Mandi–SVNIT Surat Joint Admissions Sub-committee (JASC) constituted at the School/Department/Centre level and according to each Institution's admissions procedure. Candidates must meet the admissions requirements of both institutions. The eligibility criteria for enrolling in a joint PhD program will be same as that of a regular PhD program/ERP of the individual institute. The details of the same can be found in the PhD ordinance of the individual institute.

- IIT Mandi: https://iitmandi.ac.in/academics/files/Ordinances_phd_mtech.pdf
- SVNIT Surat

3.2. JASC will release a call for PhD research projects from prospective supervisors (typically in February and August each year, for the August and January intakes, respectively).

3.3. The projects will be selected on a competitive review basis by the Dean (Academics), based on criteria such as project funding, expected outcomes, supervision capacity and expertise and industry support/involvement.

3.4. Each project on the PhD JDP will have a formal project agreement in place between the two institutions. The format for this agreement is attached as Annexure A.

3.5. The project agreement needs to be signed by the joint supervisors, endorsed by the respective School/Centre/Department Chairs/HoDs and approved by both the

institute

3.6. Successful projects will be advertised on both the institute's website to attract potential PhD candidates.

3.7. All applicants will be expected to apply through an online admissions portal. Applicants will be directed to this portal from both the Institute's academic affairs/Admissions website.

3.8. As part of the applications process, applicants may choose up to N projects (where N is normally 2 or 3). Supervisors from both IIT Mandi and SVNIT Surat will be provided access to this portal to view applications. Each project will specify the base location (IIT Mandi or SVNIT Surat) where funding is available for the project and applicants would also be able to provide their preference for the project.

3.9. Detailed applications from the selected applicants (and aligned with specific projects that have been chosen) will then be reviewed by project supervisors. Based on their own assessments, some (or all) of these applicants for each project will be interviewed by the IIT Mandi and SVNIT Surat supervisors of the project. This interview can be telephonic, *via* videoconferencing, or through a face-to-face meeting, as decided by the supervisors. Supervisors will rank candidates and provide a recommendation of a maximum of M preferences (where M is usually 2 or 3) for their projects to the JASC.

3.9. Shortlisted applicants will undergo either a written test or a joint interview or both with the JASC. Note that JASC will look at applicant project preferences and also comments from the supervisors subsequent to their conversations with the applicants.

3.10. This admissions process will be reviewed periodically on recommendations that JASC makes to Dean (Academics) for its consideration and approval.

3.11. After each selection round, JASC will submit its recommendations to the Dean

(Academics) who will consider these recommendations and forward the recommendations to the Chairman (Senate) of both the institute for approval. Successful applicants will be issued an offer letter by the Host institute, which will be based on the standard offer letters from IIT Mandi or SVNIT Surat. The offer letter should include information on the JDP and the project title/area for which the candidate is recruited, as well as comply with all requirements set forth by the two institutes.

3.12. Offers will always be “conditional offers of candidature”. These conditional offers will only be confirmed subject to receipt of original certified transcripts and further documentary evidence as requested by JASC. Students will be required to accept their offer in line with deadlines noted in their offer letter. It is not possible for students to defer commencement of their program; if they are unable to commence on the date stated in their offer letter, they must decline the offer and apply in a future round.

3.13. **Lateral Entry:** For students already at IIT Mandi or SVNIT Surat, they should be enrolled for at least 6 months prior to registration and should include in their submission an approved NOC from IIT Mandi or SVNIT Surat respectively. These candidates do not need to face the JASC for interview. Their applications will be directly put to the Dean (Academics) for consideration and approval.

3. PROJECT AGREEMENTS

3.1. Both the institutes shall enter into a ‘Research Project Title agreement’ for each individual project/student. This must be completed and signed before an unconditional offer of enrolment into the joint PhD program is made to each applicant under joint supervision. These agreements should detail the financial and resource requirements and intellectual property arrangements for each research project title. This should usually be initiated by the Home Institution using the template in the joint PhD agreement (Annexure A) at the time of releasing advertisement.

3.2. A risk assessment must be undertaken for each project by the supervisory team at each institution, according to their own requirements. In case, any of the supervisor leaves the parent institution due to any reason whatsoever, it will be the responsibility of that institution to arrange the replacement of supervisor from their own faculty. The outgoing faculty member (earlier supervisor) may act co-guide to the maximum possible extent.

4. FEES, SCHOLARSHIPS AND FUNDING

4.1. The JDP Scholar shall pay tuition fees only to their Home Institution throughout the duration of the JDP including the duration of study at the Partner Institution as per its fee structure.

4.2. Unless otherwise indicated, candidates who wish to be admitted onto the PhD JDP are entitled to receive fellowship meeting the eligibility criteria. The cost of fellowship will be borne by the Home Institute even during the candidate's stay in the Host Institute. No tuition fee will be charged by the host institution. However, the student needs to bear the boarding and lodging charges. Scholarships are awarded based on merit, and the value and conditions of any scholarship awarded will be in accordance with the terms and conditions of the awarding institution.

4.3. Applicants for the PhD JDP may hold any scholarship normally awarded by either institution, subject to the terms and conditions of that scholarship. The number of scholarships available each year and their eligibility may vary.

4.4. In accordance with the Memorandum of Understanding (MoU), both institutions agreed to support up to 15 PhD Joint Degree Program (JDP) scholarships from each university (2023-24). Each academic year's figures could be different. These scholarships are in addition to each institution's regular scholarship cycles and will not count toward a PhD students' specific faculty cap.

4.5. Regardless of the scholarship awarded, students on the joint PhD program will be personally responsible for the following expenses unless otherwise advised:

- Incidental fees and charges at either institution
- Accommodation and living expenses at either institution
- All personal expenses and non-compulsory additional fees at the host institution
- All debts incurred by candidates during their stay at either institution
- Any other debts incurred by candidates during the Joint PhD Program

5. PROGRAM MANAGEMENT

5.1. A Doctoral Advisory Committee (DC) shall be set up for each JDP Scholar to support and monitor progress of the JDP Scholar throughout the candidature until the thesis has been submitted. The DC shall consist of the following members

1. Chair/Head of the School/Department of the Home Institute or his/her nominee	Chairperson
1.Supervisor from the Home institute	Member
2.Supervisor from the Host institute	Member
3. Co-supervisor (s), if any with justification	Member (s)
4. Subject Expert from the Home Institution	Member
5. Additional members may be appointed to meet the requirements	Members

5.2. In case any DC member goes on leave exceeding one-year duration, or resigns or retires from the respective Institution, the respective School/Department/Centre Chair/HoD shall nominate another member following their respective procedures.

5.3. The DC shall meet once a year through video conferencing/ electronic communication. Beyond four years from the time of registration in the program, the DC shall meet every six months until the JDP Scholar's thesis has been submitted in accordance with the rules and regulations of both the Institutions.

6. COURSEWORK REQUIREMENTS

The JDP Scholar shall satisfy the minimum academic coursework requirements of the Home Institution. Additional courses may be taken when recommended by the DC. If a JDP scholar credits a course in one institution, the credits will be automatically transferred to the other institution and will be counted towards the degree requirement.

7. COMPREHENSIVE EXAMINATION AND CONFIRMATION OF PHD CANDIDATURE

The JDP Scholar shall be required to meet the confirmation requirements at the end of the first year of the probationary PhD period (where applicable), and in addition, qualify the comprehensive examination satisfactorily to continue with the JDP. Otherwise, they shall no longer be eligible to participate in the JDP. The comprehensive examination will be as per the prevailing guidelines of the Home Institution.

8. PROGRESS MEETING / SYNOPSIS / THESIS

8.1. JDP Scholars shall normally follow the regulations stipulated by the Home Institution for monitoring their progress. However, submission of synopsis and submission and evaluation of the thesis shall be in line with the requirements of the home Institutions.

8.2. JDP Scholar shall present at least two open seminars in the Home as well as Host Institution. A joint seminar (*via* video conferencing) will also be acceptable.

9. TIME DURATION

9.1. The JDP regular scholar shall spend a minimum of one year at the Host Institution working under the supervision of the joint-supervisor(s). They may take additional courses at the Host Institution as recommended by the DC. The JDP part-

time/ERP scholar must fulfil home institution guidelines for ERP student at individual institute. Candidates registered as part-time PhD or under External Registration program need to spend the minimum residential requirement criteria of both the institute as mentioned in their respective ordinances and regulations.

9.2. As far as possible, the minimum and maximum (if applicable) duration of the program will be governed by the rules of both Institutions. In the event of an inconsistency in the durations, the longer duration will apply.

9.3. The JDP Scholar shall be entitled to the leave benefits (if any) that relate to the Institution at which the JDP Scholar is physically located when the leave is requested.

9.4. The JDP scholar is expected to complete their thesis within a maximum duration as prescribed in the ordinance and regulations of the home institute from the date of registration.

10. Ethics approval

All candidates must gain all necessary human, animal and biosafety ethics approvals from both institutions. If either institution does not have the necessary approvals processes, the other institution's approvals process will be used. Candidates will also need to be appropriately inducted in terms of Occupational Health and Safety and any other requirements necessary.

11. WITHDRAWAL AND TERMINATION OF CANDIDATURE

The prevailing regulation for withdrawal including cancellation and termination (for any approved reason, including unsatisfactory progress) of candidature at the JDP Scholars Home Institution shall normally apply in consultation with the Partner Institution. The Home Institution shall notify the Host Institution if the Home Institution intends to terminate the candidature under its policies or if the JDP Scholar has advised the Home Institution of their intention to withdraw from the JDP. In any

event, the DC shall advise the JDP Scholar on an appropriate course of action to take, which would be in the best interest of the JDP Scholar.

12. THESIS REVIEW REPORTS & VIVA VOCE EXAMINATION

12.1. Evaluation of thesis by external examiners and conducting of the final *viva-voice* examination shall, in general, follow the processes and procedures of the Home Institution.

12.2. The language of the thesis and the *viva voce* examination shall be English.

13. AWARD OF DEGREE

Two separate degree certificates shall be awarded for the one-degree by the respective Institutions in line with their respective protocols/styles. The wording in both degree certificates must indicate unambiguously that the degree is being awarded jointly with the Partner Institution (by name) for the same thesis. Sample certificates are attached as Annexure B to this Agreement/document.

14. INTELLECTUAL PROPERTY, INVENTIONS AND INNOVATIONS

14.1. All intellectual property held by a Party prior to, or outside of, entering into this Agreement that is disclosed or introduced in connection with this Agreement and all materials in which such intellectual property is held, disclosed or introduced ("background intellectual property") shall remain the property of the Party introducing or disclosing it. However, that Party grants the JDP Scholar and/or the other Party a licence to use such intellectual property for any purpose associated with the JDP.

14.2. All rights, titles and interests in any studies, reports or materials, graphic or otherwise, prepared by the Home Institution or by the Partner Institution respectively, that is not background intellectual property or intellectual property created under clause 14.3, will belong to that Institution and may not be made use of except with that Institution's prior written consent.

14.3. Where the Institutions jointly develop intellectual property, inventions and innovations as a result of the research work of the JDP Scholar working under the supervision of the joint supervisors the terms with respect to title and exploitation of such intellectual property, inventions and innovations (including but not limited to trademarks and service marks, copyright, patents, know-how designs and confidential information on the subject of such intellectual property, inventions and innovations) will be negotiated on a case-by-case basis having due regard for each Institutions policies and governance requirements and the terms and conditions imposed by any individual funding agencies or grant-making organizations. The Parties preference for such case-by- case agreements will be that the intellectual property rights created in the course of the JDP will vest in each Institution in equal shares and that each Party may use such jointly-owned intellectual property for internal, non-commercial research and educational purposes. Save as aforesaid, nothing in this agreement shall be construed as a license or transfer or an obligation to enter into any further agreement with respect to intellectual property currently licensed to or belonging to either Institute.

14.3. Nothing in this Agreement will inhibit the right of a JDP Scholar to have their thesis examined and a copy of their thesis lodged in the library of each Institution (including a digital copy).

14.4. Notwithstanding anything to the contrary in clause 14.3, each JDP Scholar shall own the copyright in his/her thesis.

14.5. The provisions of this clause 14 will survive beyond the termination of this Agreement

15. CONFIDENTIALITY

15.1. When receiving confidential information, the receiving Party must ensure that all employees, students or agents to whom the confidential information is disclosed are bound to keep the confidential information confidential and not to use the confidential information except for the JDP.

15.2. The obligations of confidentiality in this clause 15 do not apply to information which may be required to be disclosed by law, is in the public domain other than by breach of this Agreement or has been independently developed or obtained by the receiving Party.

15.3. Each Party agrees that personal information about JDP Scholars will be collected, managed, held, used, disclosed and transferred in accordance with the relevant privacy laws and policies applicable to that Party.

16. AMENDMENTS

This Agreement may be amended and supplemented in writing at any time by the mutual consent of the Parties in writing.

17. TERM OF AGREEMENT

17.1. This Agreement shall commence on the Effective Date and shall remain in force for a period of five (5) years. Thereafter, it shall renew itself automatically for successive periods of five (5) years unless either Party gives the other Party not less than six (6) months' notice in writing of its desire to terminate this Agreement, at any time during the initial or the relevant extended period.

17.2. Both Parties agree that in the event this Agreement is terminated for any reason, the Parties shall use their best endeavors to allow all JDP Scholars already enrolled in the JDP who are eligible to complete their candidature, to continue and complete the requirements for the JDP in which they are enrolled, and to be awarded the joint degree upon successful completion of the JDP. If it is not possible for a JDP Scholar to satisfy the requirements of and complete the JDP, the Parties shall endeavor to allow that JDP Scholar, at their election, to complete the requirements for a single PhD degree at the Home Institution subject to the requirements of the relevant Institution. The Parties agree that such a JDP Scholar

shall be given credit for all relevant units previously undertaken by the JDP Scholar at the other Institution as part of the JDP in accordance with the policies and protocols of the Institution where the JDP Scholar will complete the requirements of their PhD.

17.3. If the Agreement is terminated and if the JDP Scholar continues their candidature either on a Joint degree basis or as a single PhD degree at one or other of the institutions, the Parties agree that the JDP Scholar shall continue to have access to the background intellectual property as described in clause 14.1 and confidential information to the extent *necessary for* the student to complete the JDP or a PhD at either Institution.

18. DISPUTE RESOLUTION

Any dispute arising under or in connection with this Agreement which cannot be resolved by amicable discussions between the Parties shall be referred to the Director of the respective Parties or their nominees for resolution.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be duly executed on the day and year first above mentioned.

Annexure A: A1-Project Agreement-IIT Mandi

A2- Project Agreement- SVNIT Surat

Annexure B: Degree certificate format from both the Parties for JDP

Director,

Director,

SVNIT, Surat

Indian Institute of Technology Mandi

In presence of:

Dean (Academics)
SVNIT Surat

Dean (Academics)
Indian Institute of Technology Mandi



સરદાર વલ્લભભાઈ રાષ્ટ્રીય પ્રૌદ્યોગિકી સંસ્થા, સુરત
સરદાર વલ્લભભાઈ રાષ્ટ્રીય પ્રૌદ્યોગિકી સંસ્થાન, સુરત

SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT

(An Institute of National Importance, Established under NITSER Act by Ministry of Education, Govt. of India)



No: A/Cs /2022-23/867

Date: - Jan. 05th, 2023

To,
M/s. Saumya Gupta,
Joint Secretary (NIT's),
Ministry of Education,
Department of Higher Education,
C-Wing, Shastri Bhawan,
New Delhi-110 001,

Sub: Increasing students intake in IITs/NITs/IIITs.

Ref: Email dated 04.01.2023.

Dear Madam,

With reference to Ministry email dated 4.1.2023 regarding information for Increasing students intake in IITs/NITs/IIITs. following information is submitted regarding SVNIT Surat:

- i) Year wise increase in take at various level (UG/PG/PhD) during 2022-23 to 2027-28 of SVNIT Surat is enclosed at Annexure-I.
- ii) The Scholarship & Fellowship (PG/PhD) is paid from Grant-in-Aid General (OH-31). The increased expenditure over & above the budgetary support, will be compensated from Fees from Students, IRG and HEFA loan for infrastructure development.
- iii) No structural changes will be required for increased student strength.

Thanking you,

[Signature]
Registrar

SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY**ACADEMIC SECTION**

No. Acad/577

Date : 09/01/2023

With reference to email dated: 06/01/2023 of MoE, NITs Division for Increasing student's intake in IITs/NITs/ IIITs. The proposed increasing at SVNIT, Surat is as under;

Name of the Institute : Sardar Vallabhbhai National Institute of Technology, Surat

(i) **year-wise increase in intake at various levels (UG/PG/PhD);**

Academic Year	UG	PG	Ph.D. *	Total Intake
2022-23	866	475		1341
2023-24	1190	630		1820
2024-25	1270	630		1900
2025-26	1340	630		1970
2026-27	1360	630		1990
2027-28	1360	630		1990

Five Years beyond aforesaid period

Academic Year	UG	PG	Ph.D. *	Total Intake
2028-29	1435	735		2170
2029-30	1510	735		2245
2030-31	1585	735		2320
2031-32	1585	735		2320
2032-33	1585	735		2320

- * Total Ph.D. students' strength at every point of time is (4 FIR students per Faculty) 900. Ph.D. intake will very deepening upon the total strength of the faculty member in the Institute.

M. K. Kulkarni
9/1/23
Dean (Academic)

अनुपम ११/१/२३
Director

Expected UG Strengths for the future successive academic years after the increase in intake

		Current Academic Year 2022-2023					Academic Year 2023-2024					Academic Year 2024-2025					Academic Year 2025-2026					Academic Year 2026-2027					Academic Year 2027-2028			
		JoSAA	DASA	GOI	Total	Increase in Intake	JoSAA	DASA	GOI	Total	Increase in Intake	JoSAA	DASA	GOI	Total	Increase in Intake	JoSAA	DASA	GOI	Total	Increase in Intake	JoSAA	DASA	GOI	Total	Increase in Intake	JoSAA	DASA	GOI	Total
		866	130	21	1017	324	1190	179	21	1390	80	1270	191	21	1482	70	1340	201	21	1562	20	1360	204	21	1585	0	1360	204	21	1585
1	Chemical	115	15	1	131	15	130	17	1	148	10	140	21	1	162	10	150	23	1	174	0	150	23	1	174	0	150	23	1	174
2	Civil	116	10	5	131	14	130	11	5	146	10	140	21	5	166	10	150	23	5	178	0	150	23	5	178	0	150	23	5	178
3	Computer	115	34	1	150	15	130	38	1	169	10	140	21	1	162	10	150	23	1	174	0	150	23	1	174	0	150	23	1	174
4	Electrical	116	10	4	130	14	130	11	4	145	10	140	21	4	165	10	150	23	4	177	0	150	23	4	177	0	150	23	4	177
5	Electronics	172	20	4	196	28	200	23	4	227	10	210	32	4	246	10	220	33	4	257	0	220	33	4	257	0	220	33	4	257
6	Mechanical	232	41	6	279	28	260	46	6	312	10	270	41	6	317	0	270	41	6	317	0	270	41	6	317	0	270	41	6	317
7	Other-1 - AI/IT	0	0		0	120	120	9	0	129	10	130	20	0	150	10	140	21	0	161	10	150	23	0	173	0	150	23	0	173
8	Other-2 - Duel Degree Maths	0	0		0	90	90	5	0	95	10	100	15	0	115	10	110	17	0	127	10	120	18	0	138	0	120	18	0	138

Reference Increasing students intake in IITs/NITs/ IIITs, an Email of date 31st December 2022 at 10:25:35 PM IST, ashe-mhrd@gov.in attached

Plunk
Associate Dean (Academic)
Acad

ASW
Dean (Academic)
5/1/2023

31/12/22
5/1/23
Director

- To
- ✓ 1. Account Section for the calculation of finance part
 - 2. Registrar for compilation and transmisson onward

Time - 4:35
Account Section
Inward No. *1722*
Outward No.
Date: *05/01/2023*

DEAN ACADEMIC
S.V.N.I.T., SURAT-7
INWARD No.
OUTWARD No. *353*
Date *05/01/2023*

$\left(\frac{1}{3}\right)$

Expected PG Strengths for the future successive academic years after the increase in intake

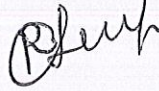
				Academic Year 2023-2024			Academic Year 2024-2025			Academic Year 2025-2026			Academic Year 2026-2027			Academic Year 2027-2028		
		CCMT	Increase in Intake	CCMT	Increase in Intake	Total	CCMT	Increase in Intake	Total	CCMT	Increase in Intake	Total	CCMT	Increase in Intake	Total	CCMT	Increase in Intake	Total
		475	155	630	0	630	630	0	630	630	0	630	630	0	630	630	0	630
1	Construction Technology and Management	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
2	Environmental Engineering	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
3	Geotechnical Engineering	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
4	Structural Engineering	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
5	Transportation Engineering & Planning	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
6	Urban Planning	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
7	Water Resource Engineering	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30

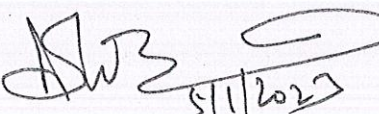
				Academic Year 2023-2024			Academic Year 2024-2025			Academic Year 2025-2026			Academic Year 2026-2027			Academic Year 2027-2028		
		CCMT	Increase in Intake	CCMT	Increase in Intake	Total	CCMT	Increase in Intake	Total	CCMT	Increase in Intake	Total	CCMT	Increase in Intake	Total	CCMT	Increase in Intake	Total
15	CAD-CAM	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
16	Mechanical Engineering	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
17	Manufacturing Engineering	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
18	Thermal Systems Design	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
19	Turbo Machines	25	5	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
20	Data Science	0	30	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30
21	Information Security and Privacy	0	30	30	0	30	30	0	30	30	0	30	30	0	30	30	0	30

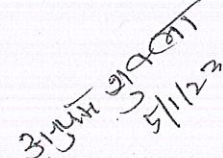
Ph.D. Programmes

(B) Total Ph.D. students strength at every point of time is (4 FIR students per Faculty) 900.

Reference Increasing students intake in IITs/NITs/ IIITs, an Email of date 31st December 2022 at 10:25:35 PM IST, ashe-mhrd@gov.in attached


Associate Dean (Academic)
A. Patel


Dean (Academic)
5/1/2023


Director
31/12/22 5/1/23

To

1. Account Section for the calculation of finance part
2. Registrar for compilation and transmission onward

$\left(\frac{3}{3}\right)$