



ABOUT SVNIT

The institute, one of the pioneering engineering institutions of the country, was established in 1961 as Sardar Vallabhbhai Regional College of Engineering & Technology and was given a status of National Institute of Technology, in 2002. At present, there are six undergraduate courses, seventeen postgraduate courses and Ph.D. programs in all disciplines of engineering and applied sciences. It has an excellent placement record with a number of top-ranking companies visiting the campus. The whole campus has connectivity of the internet with fiber optic network including faculty quarters and student hostels.

ABOUT THE DEPARTMENT

The Department of Applied Mathematics & Humanities has always believed in striving for excellence in research and teaching and succeeded in this endeavor to a large extent. Over the years, the department has evolved as one of the epicenters of research in Gujarat, India.

In the pursuit for research the Faculty members of the department have covered a vast area such as Numerical & Classical methods in fluid mechanics, Special functions, Integral transforms, Approximation theory, Operator theory and Fuzzy logic, Mathematical modeling, Numerics of differential equations, Fractional differential equations, Mathematical and computational biology, Bioinformatics, Techno innovation to techno entrepreneurship, General management, Entrepreneurship, Marketing, Post-modern fiction and Indian English fiction.

PATRON

Prof. S.R. Gandhi
Director, SVNIT
Surat

COURSE COORDINATORS

Dr. Indira P Debnath
Dr. Shailesh Kumar Srivastava
Dr. Sushil Kumar

ABOUT CCE

Center for Continuing Education (CCE) was established in Feb-2017 at SVNIT with Prime objective to imparting skill developing training programs to faculty, research scholars, UG/PG students, industry professional through planning and organizing Workshop/STTP/STC/Expert talks on the concept of Self-Sustainability approach as per MHRD Guide-lines.

WHO CAN ATTEND?

- Academician
- Research Scholars
- Industry persons
- UG & PG students
- Staffs/Supporting staffs

Participants are advised to keep laptops for hands-on practice during the sessions.



Under Institute
Diamond Jubilee
Celebration

2nd Short Term Course (STC)

On

**Computational Software
(MATLAB & MATHEMATICA)**

17-21 May, 2021

(Online Mode)



Organized by
Department of Applied Mathematics and
Humanities
S. V. National Institute of Technology
Surat 395007
Gujarat, India

In Association with the
CCE, SVNIT

PROGRAMME OBJECTIVE

This workshop aims to provide a comprehensive theoretical and hands on experience with MATLAB and MATHEMATICA to the beginners.

COURSE CONTENTS

- MATLAB: Introduction and Vector Operations, Variables and Matrix Operations.
- Conditional Branching, Iterations and Loops Script and Functions.
- 2D, 3D Graphs and Advanced Plotting Commands.
- Zoomed plots, Symbolic Tool box (Mupad), Curve fitting Tool box, Regression Analysis.
- Numerical methods for solving IVP & BVP with the help of MATLAB.
- Numerical optimization Technique, MathWorks and signal generation using MATLAB.
- Introduction to Mathematica, basic arithmetic operations, 2D and 3D graphics and solution of algebraic equations etc.
- Solution of Differential equation and some special functions using Mathematica.

WHY MATLAB?

- MATLAB has a high-level programming language allowing access to advanced data structures, 2D and 3D graphical functions.
- Graphics functions to visualize annotate and export data and many ways to create and customize various types of plots and charts.

- Algorithms to solve constrained and unconstrained continuous and discrete optimization problems. Tools to perform data analysis and modeling.

WHY MATHEMATICA?

Mathematica is a software system with built-in libraries for several areas of technical computing that allow symbolic computation, manipulating matrices, plotting functions and various types of data, implementation of algorithms, creation of user interfaces, and interfacing with programs written in other programming languages.

REGISTRATION DETAILS

Registration Fee

UG/PG/Ph.D. Scholars :	₹ 400
Post-Doc/ Faculty :	₹ 750
Industry Delegates :	₹ 5000
Foreign Participants. :	\$ 20

The certificate of participation will be issued only to those candidates securing more than 80% attendance.

E-certificates will be sent to the participants by email

Details of account for Program Fee Submission:

Account Holder name: **Director, SVNIT-CCE**
SBI Account Number: **37030749143**
Branch Name: **SBI, SVRCET Branch**
Bank IFSC: **SBIN0003320**

Registration can be done using the following link:
[Click for the Registration](#)

Please mention **"STC-MATLAB"** in the Description/Remark during payment

ELIGIBILITY

The training program is open to engineering college and polytechnic teachers, research scholars, PG students (M. Sc. and M. Tech) and industry personnel.

RESOURCE PERSONS

The lectures in the course will be delivered by eminent personalities and experts in the area from reputed academic institutions and universities.

ORGANIZING COMMITTEE

Patron : Director, SVNIT Surat
Coordinators : Dr. Indira P. Debnath
Dr. Shailesh K. Srivastava
Dr. Sushil Kumar

CONTACT DETAILS

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Contact :9902129393, 9643097350

Last Date of Registration: 9th May, 2021