

## SECOND ONLINE SHORT-TERM TRAINING PROGRAM (STTP)

ON

### DATA SCIENCE AND STATISTICAL ANALYSIS THROUGH R AND PYTHON SOFTWARE

29 MAY - 02 JUNE, 2024



Organized by,  
**Department of Mathematics,  
S. V. National Institute of Technology,  
Surat-395007, Gujarat, India.**

**In Association with the CCE, SVNIT.**



## 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 Seven undergraduate courses, Eighteen postgraduate courses, Three M.Sc. Five years Integrated Program and PhD program 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.

The Department of Mathematics 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 Probability & Statistics, Algebra, Coding theory, Numerical & Classical methods in fluid mechanics, Special functions, Integral Transforms, Approximation theory, Operator theory and Fuzzy logic, Mathematical Modeling, Numeric of differential equations, fractional differential equations, Mathematical and Computational Biology, Bioinformatics, Techno innovation to Techno entrepreneurship, General Management, Entrepreneurship, Marketing.



## 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 STTP/Expert talks/Workshops on the concept of Self-Sustainability approach as per MHRD Guidelines.

## PROGRAMME OBJECTIVES

In this world of overloaded information and data explosion, there is a need to leverage this data and make sense of it entirely. R is rapidly becoming the leading programming language for effective data analysis and statistics. R Programming is a training program that aims at building a skill-set towards real-world data analysis.

Since the data science industry is rapidly expanding. Data volume can be large due to which difficulties arise in handling the data and the whole procedure will be much more time consuming. In this case, Python is a very popular tool in scientific computing, because it has many data-oriented feature packages that can speed up and simplify data processing.

This training program is targeted at Bachelor, Master, PhD students, Post-docs, Faculties, Engineers & Researchers from numerous areas of science and technology. In this five day course, the first three days aim for the introductory sessions followed by basics of R software in statistics and data analysis. The speakers will introduce Python software for data analysis over the next two days. The data analysis based on several important topics will be covered by the speakers.

The attendees will learn,

★ Distribution (random variables) discrete and continuous, Random number generation using R, Goodness of fit-test, Statistical test (KS distance, Chi-square test, F-test etc.), AIC/BIC conditions, Confidence intervals (point and interval estimates), MLEs, MCMC using M-H Algorithm, Survival Analysis, Different plots.

★ Encoder-decoder, Word embedding, Tokenizer, Attention Mechanism, Fine tune LLMs, Applications of LLM.

### EXPERTS AND TUTORS

Dr. Ritwik Bhattacharya  
University of Texas at El Paso, USA.



Dr. Tanmay Sen  
Data Scientist,  
Ericsson, Kolkata.

Dr. Chandrakant Lodhi  
Energy Institute Bengaluru, RGIPT.



Mr. Vaibhav Shakya  
Data Scientist,  
CDAC, Pune.

### WHO CAN ATTEND

Though there is no limit, this training program is open to Industry persons, Research scholars, Postdocs, UG and PG students.

*Notice: Participants are advised to keep laptops for hands-on practice during all sessions.*

### DETAILS FOR REGISTRATION

Bank account details for program fee submission:

Account Holder Name: Director, SVNIT-CCE

SBI Account Number: 37030749143

Branch Name: SBI, SVRCET

Branch Bank IFSC: SBIN0003320

NOTE: Please mention "DOM\_STTP\_2024" in the description/ remark during payment and attach payment proof while registering through Google Form.

Online Registration link:

<https://forms.gle/aDoKCmehCOxjq7rg8>

**The certificate of participation will be issued to all candidates after completion of the program.**

**Last date of Registration: 10-05-2024**

	Registration fee (Non-refundable)
UG/PG (500+ 18% GST)	590 INR
PhD scholars/Postdocs (700 + 18% GST)	826 INR
Faculty (1000 + 18% GST)	1180 INR
Industry Delegates (2000 + 18% GST)	2360 INR

### PATRON

Prof. Anupam Shukla  
Director, SVNIT, Surat.



### CHAIRMAN

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