

**Short Term Training  
Programme**  
**on**  
**Mathematical Modeling and  
Statistical Techniques**  
**(MMST-2018)**  
**(30 July - 03 August, 2018)**  
**(Under TEQIP)**



Organized by:

DEPARTMENT OF MATHEMATICS  
Sant Longowal Institute of Engineering &  
Technology  
(Deemed to be University, Established by  
Govt. of India)  
Longowal, Sangrur-148106 (Punjab)  
<http://www.sliet.ac.in>

**Aim of this Programme:**

Conversion of real world phenomena under certain conditions into mathematical formulation is known as Mathematical Modeling. The importance of Mathematical Modeling as a discipline to be studied and cultivated has been realized during the last three four decades only. Apart from formulation, solving the mathematical model and interpreting the results of solution are two other important stages of handling the real world problems. The use of mathematical techniques in handling lengthy and complicated problems has become widespread due to the increasing computational power of digital computers and computing methods. In many areas of research, researchers have been analyzing data obtained from various experimentation or from complex surveys. The results of such analyses can be extremely misleading in the absence of standard Statistical Methods. So, the main objective of this programme is to make the participants understand the use of various mathematical and statistical techniques which are currently prevalent at all the three stages- formulation, solution and interpretation of mathematical modeling.

**Topics to be covered:**

- Fundamentals of Mathematical Modelling
- Mathematical model development from real world data
- Probability distribution
- Reliability Theory
- Statistical signal processing
- Application of MATLAB
- Lab sessions in MATLAB, Mathematica and R software
- Applications of Simulation

**Resource Persons:**

1. Prof. Shailendra Jain, SLIET, Longowal.
2. Prof. Debasis Kundu, IIT, Kanpur.
3. Prof. Joydip Dhar, ABVIIT, Gwalior.
4. Prof. C.B. Gupta, BITS, Pilani.
5. Dr. V.K. Kukreja, SLIET, Longowal.

**Organizing Committee**

**Patron-in-chief:** Prof. S. K.Jain, Director

**Patron:** Prof. M.B. Bera, Dean (Academic)

**Chairpersons:** Prof. S.S. Dhaliwal

Prof. Sushma Gupta, HOD

**Convener:** Prof. R. K. Guha

**Coordinator:** Mr. Yogesh Kapil, Asstt. Prof.

**Members:** Prof. Mandeep Singh

Prof. Vinod Mishra

Prof. V.K. Kukreja

Prof. J.R. Sharma

Prof. R.K. Mishra

Mr. R.K. Goyal

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## About the Institute:

Sant Longowal Institute of Engineering & Technology (SLIET) is Deemed to be University established by MHRD, Govt. of India and controlled by SLIET society, registered under Societies Registration Act, 1860. The institute awards its own Certificates, Diplomas, Undergraduate, Postgraduate and Ph.D. degrees in various disciplines of Engineering, Sciences and Management. The institute, besides catering to the needs of formal education, has undertaken the task of preparing skilled and qualified manpower for self-employment. Further, the institute has also taken up strategic research and development activities which along with entrepreneurship will help in extending the efforts of the institute in imparting education to the unemployed and working population by updating and upgrading their technical skills.

## Location:

The Institute is situated at Longowal, around 8 km. from Badbar, a bus stop on Sangrur-Barnala highway. It is connected by road with Sangrur (18 Kms), Patiala (80 Kms), Sunam (17 Kms), Ludhiana (100 Kms), Chandigarh (150 Kms), Delhi (320 Kms). The nearby railway stations are Sangrur, Sunam, Dhuri junction (35 Kms) and Barnala (30 Kms). The nearest airport is Chandigarh.

## Mathematics Department:

Mathematics department is an independent department with well qualified faculty. Most of the faculty members have doctoral and postdoctoral experience from reputed institute/university of India. The department offers Ph.D. and M.Sc. degrees in Mathematics. The department has well equipped laboratory – Numerical Methods and Computational Laboratory wherein UG and PG students use C++, MATLAB and Mathematica to perform practical classes. Besides teaching, the faculty members are engaged in active research work in their respective fields of interest.

## Target Participants:

This programme is primarily planned for faculty/research scholars working in various disciplines like Engineering, Physical and Social sciences. Emphasis will be on (i) theoretical and practical aspects of mathematical modeling and statistical techniques and (ii) use of software packages such as MATLAB, Mathematica and R software.

## Registration:

Category	Registration fee
Faculty	Rs. 2000/-
Research Scholars	Rs. 1000/-
Industry sponsored participants	Rs. 3000/-
Participants from SLIET (Faculty and Research Scholars)	Nil

Registration form along with registration fee (in the form of DD drawn in favour of “MMST2018” payable at Longowal) is to sent to **Convener, MMST-2018, Department of Mathematics, SLIET, Longowal**. The participants can also deposit registration fee by bank transfer and send online transaction details to the organizers. The bank transfer details are as under:

Account Name	MMST2018
Account Number	3677199413
Bank Name & Branch	Central Bank of India, SLIET, Longowal
IFSC Code	CBIN0283105

Application in the attached form/downloaded from [www.sliet.ac.in](http://www.sliet.ac.in) (along with registration fee) duly recommended by Head of the Department should reach on or before 15th July, 2018. However, an advance copy of the application may be sent to the organizers.

## Accommodation:

No TA/DA will be borne by organizers. Arrangement will be made to accommodate all participants in the hostels, transit accommodation and guest house of SLIET Longowal.

## Registration Form

### SHORT TERM TRAINING PROGRAMME on Mathematical Modeling and Statistical Techniques (MMST-2018) (30 July - 03 August, 2018)

1. Name of the Participant: .....
2. Designation:.....
3. Field of Specialization:.....
4. Name of the Institute:.....
5. Mailing Address:.....

E-mail:.....

Telephone No.:.....

Fax:.....

6. Accommodation required: Yes/No

I am enclosing a demand draft number ..... of Rs..... in favor of the “MMST-2018” payable at Longowal as registration fee.

Place:

Date:.....

Signature of the applicant

Note: Registration form through e-mail/fax will also be accepted. Send the online transaction details to the organizers.

