Online Workshop on Mathematical Modeling and MATLAB Applications

(24<sup>th</sup> Aug. – 25<sup>th</sup> Aug., 2020)

### Sponsored by

TEQIP-III (*Twinning activity*) SLIET Longowal & NIT Uttarakhand





**Organized by** 

Department of Mathematics SLIET Longowal – 148106 (Punjab) & NIT Uttarakhand, Srinagar Garhwal,

Uttarakhand – 246174

## **PROSPECTIVE PARTICIPANTS**

This workshop is open for participants from Industries, PSUs, Academic Institutions Faculties, Ph.D. Research Scholars and Undergraduate, Postgraduate students. There is no registration fee for the workshop.

# **CHIEF PATRON**

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## PARTICIPATION

The registration can be done using the link:

https://forms.gle/jNWSx1HVZDM9sWKYA

Mode of Workshop: Online Platform: Google Meet

Time: 10:00 AM onwards (Daily)E-Certificates will be issued to participants after successful completion of the course.

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# **COURSE OBJECTIVES**

The workshop shall provide a glimpse of basic Mathematical Modeling and its applications in the interdisciplinary areas of science and engineering like chemical engineering, bio-mathematics & fluid dynamics. The participants will also be enlightened by application of MATLAB in fuzzy logic along with the basics of finite element method and its implementation using MATLAB programming.

### **TOPICS TO BE COVERED**

The major topics to be covered in short term course are:

- Application of MATLAB Toolboxes: Fuzzy Decision Making.
- Mathematical Modeling in Chemical Engineering.
- Mathematical Modeling and its Applications in Biology.
- Mathematical Modeling of Pumping Flows in Physiological Systems.
- Mathematical Modeling for Epidemic Diseases.
- Introduction to Finite Element Method with MATLAB Programming etc.