



TEQIP – III

Technical Education Quality Improvement Program



Two Days Online Workshop on Mathematical Modeling and MATLAB Applications

In technical collaboration with SLIET Longowal, Punjab. Organized
by: Department of Mathematics, NIT Uttarakhand Sponsored by:

TEQIP-III

24th -25th August, 2020

TECHNICAL SCHEDULE

24 th August 2020 (Monday) Day-1	
09:45 AM – 10:05 AM	INAUGURATION
10:10 AM – 11:10 AM	<i>Speaker: Prof. S.K. Jain</i> (Director, SLIET) Topic: Application of MATLAB Toolboxes: Fuzzy Decision Making
11:10AM – 12:10PM	<i>Speaker: Prof. V.K.Kukreja</i> (SLIET, Longowal) Topic: Mathematical Modeling in Chemical Engineering
12:10 PM – 01:10 PM	<i>Speaker: Prof. R.K.Guha</i> (SLIET, Longowal) Topic: Mathematical Modeling and its Applications in Biology
25 th August 2020 (Tuesday) Day-2	
10:30 AM – 11:30AM	<i>Speaker: Dr. Dharmendra Tripathi</i> (Associate Professor, NITUK) Topic: Mathematical Modeling of Pumping Flows in Physiological Systems
11: 30 AM – 12: 30 PM	<i>Speaker: Dr. Nitin Sharma</i> (Assistant Professor, NITUK) Topic: Mathematical Modeling for Epidemic Diseases
12: 30 PM – 01: 30 PM	<i>Speaker: Dr. Kuldeep Sharma</i> (Assistant Professor, NITUK) Topic: Introduction to Finite Element Method with MATLAB Programming
01: 30 PM – 02: 00 PM	VALEDICTORY

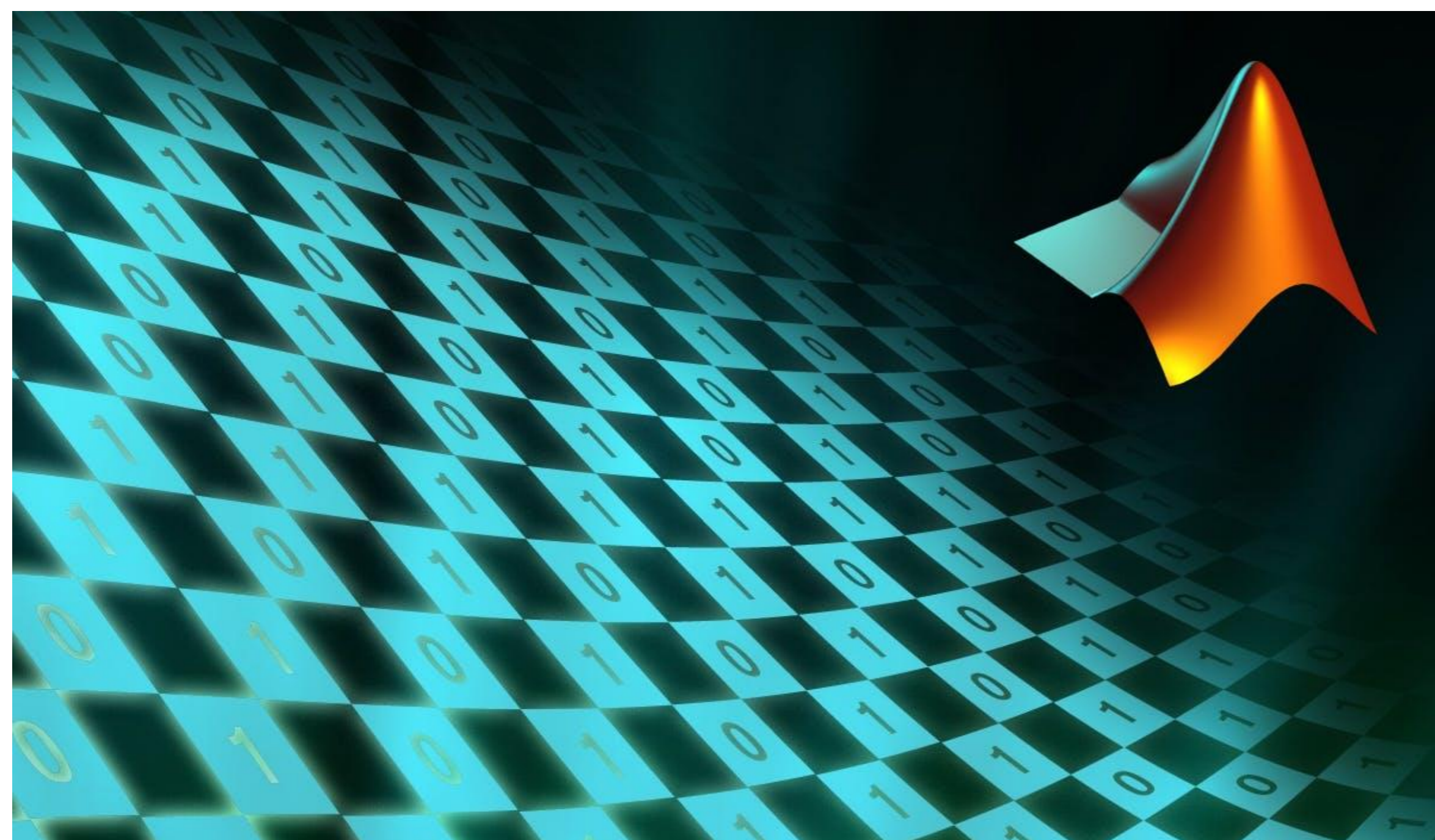
MATLAB® & SIMULINK®



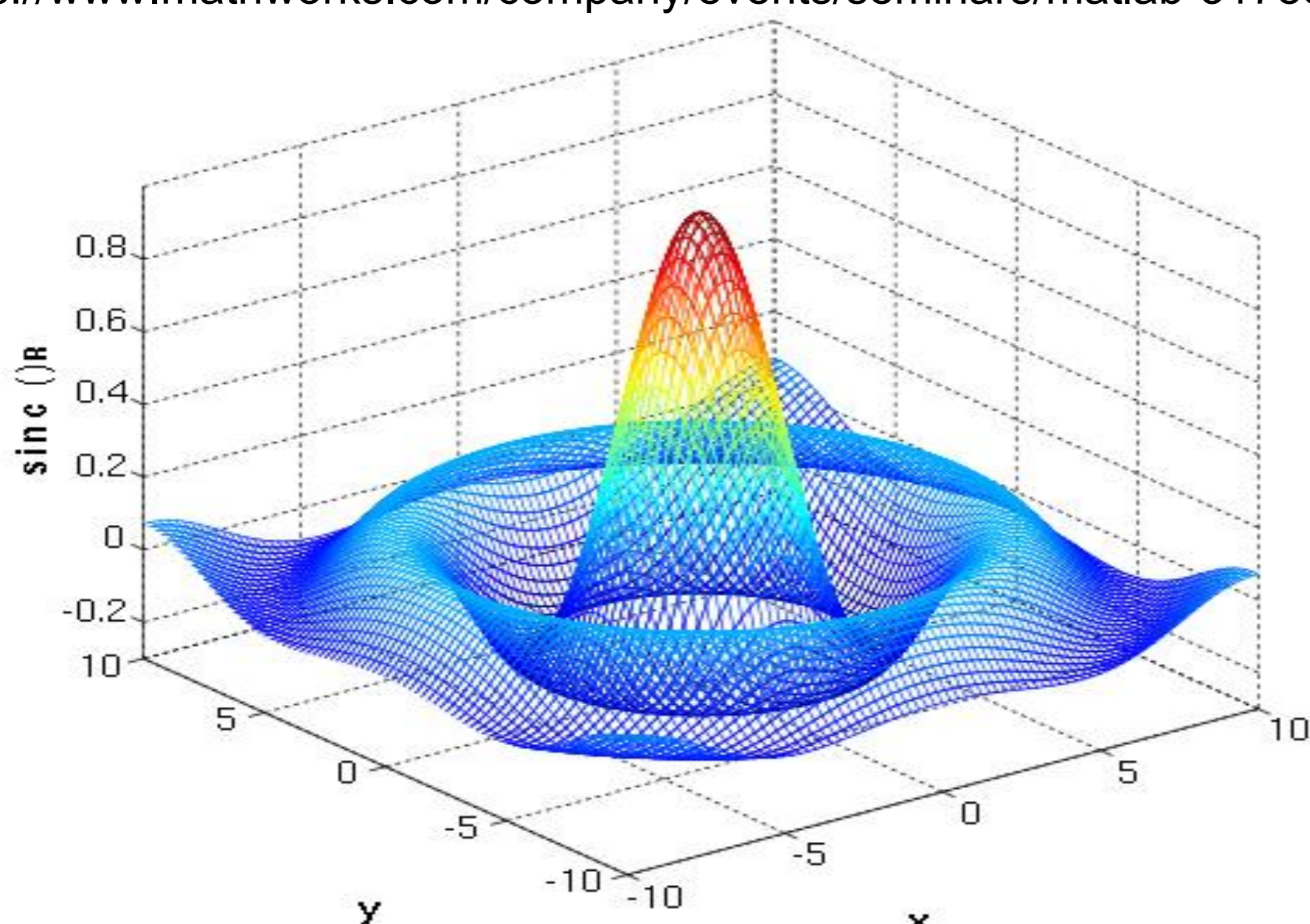
MATLAB and Simulink Campus-Wide License resources and Technical competency building

Department of Mathematics,

Coordinators: Prof. Sushma Gupta (HOD) and Prof. V.K. Kukreja



Registration Link:
<https://www.mathworks.com/company/events/seminars/matlab-3178802.html>



Date: 23rd July 2020

11:00AM – 12 PM : How to access
MATLAB?

Noon–1:00pm : Solving differential
equations in MATLAB

1:00pm–2:30pm: Break

2:30PM–3:30PM : Descriptive statistics
using MATLAB

3:30PM–4:30PM : Overview of virtual labs
using Simulink and Simscape

Speakers: Mr. Subhajt Goswami and
Dr. Souvick Chatterjee

Download and Install MATLAB Campus-
Wide License from this URL (login with
your SLIET official email id to download and
Install MATLAB in your personal / home
computers):

<http://tiny.cc/fmgisz>

WORKSHOP ON MAPLE - 2020

Department of Mathematics SLIET, Longowal

A one day workshop on Maple software will be held in collaboration with **Binary Semantics Limited** as per the following schedule:

Date : June 29, 2020 (Monday)
Time : 11 AM onwards
Mode : Online
Platform : Goto Webinar

There is no registration fee for the workshop. Each participant will get an E-certificate also.

Kindly fill the below link for registration:

<https://attendee.gotowebinar.com/register/1728826311700417547>

An overview of **Maplesoft** focussing following features will be presented:

Workshop on Maple 2020	
S. No.	Topic
1	Symbolic Math in Maple
2	Visualization in Maple
3	Solving DE's and PDE's in Maple
4	Working with matrices in Maple
5	Working with data in Maple
6	Maple as an instructive tool

If you have any query, kindly contact:

Prof. V.K. Kukreja
Workshop Coordinator
vkkukreja@gmail.com
9463017135

Prof. Sushma Gupta
Head
Department of Mathematics
SLIET Longowal

Online Workshop on Mathematical Modeling and MATLAB Applications

(24th Aug. – 25th 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, Post-graduate students. There is no registration fee for the workshop.

CHIEF PATRON

Prof. Shailendra Jain, Director, SLIET
Prof. Shyam Lal Soni, Director, NITUK

PATRONS

Prof. A.S. Arora, Dean Academic, SLIET
Dr. G.S. Brar, Dean Academic, NITUK

CONVENORS

Prof. Sushma Gupta, SLIET Longowal
Dr. Nitin Sharma, NIT Uttarakhand

COORDINATORS

Prof. V.K. Kukreja, SLIET Longowal
Dr. Kuldeep Sharma, NIT Uttarakhand

CONTACT PERSON

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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.

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.