One Week Online Short Term Course

on

"Discretization Techniques (FEM, FDM, FVM)"
(05th- 09th June 2023)

Organized by

Department of Mechanical Engineering

National Institute of Technology Srinagar

- Limited Seats (First come first serve)
- E-Cerificate for Registered Participants
- Apply online at: https://forms.gle/jVGMh3cK1tvDPN2c8

ORGANIZING COMMITTEE

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Director, NIT Srinagar

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About NIT Srinagar

National Institute of Technology, Srinagar was established in 1960 as the Regional Engineering College, Srinagar. The Institute acquired the status of NIT in August, 2003 and attained full autonomy in its Academics. In 2007, it became an Institute of National Importance. It is one of the 31 NITs and it is directly under the control of the MHRD. The Institute is situated at the banks of world-famous Dal Lake. Besides running various undergraduate, post graduate and doctoral programmes, Institute has also established an Innovation Incubation and Entrepreneurship Development (IIED) centre.

About the Department

The Department of Mechanical Engineering has evolved into one of the finest in terms of teaching curriculum and methodology supported by a well-organised and adequately funded research program. The Department has a very well-established B. Tech program complemented by two M. Tech programs in Mechanical System Design and Industrial Tribology and Maintenance Management. The department is, perhaps, the most versatile in terms of the range of specializations of its faculty members and a well experienced support staff.

STEP-I

The Participants must make the prescribed payment by (NEFT/IMPS) to the below mentioned account and keep the screenshot of their payment for further clarification.

A/c Name : Director, NIT Srinagar
A/c No. : 039104050000006
Bank Name : J & K Bank
IFSC Code : JAKA0RECSGR (0 = Zero)

Last Date of Registration: 2nd June 2023

STEP-II

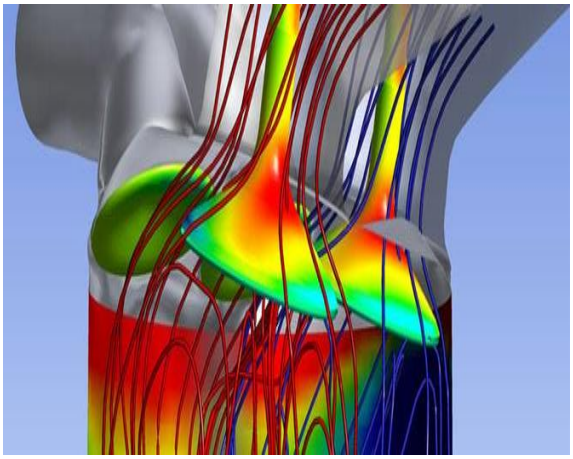
The participants need to register online by visiting https://forms.gle/jVGMh3cK1tvDPN2c8
The screenshot of the payment shuould be uploaded while filling the form.

Registration Fee

Students (UG/PG/PhD)	:	Rs 500/-
Faculty	:	Rs 750/-
Industry Personnel	:	Rs 1000/-

One Week Online Short Term Course
"Discretization Techniques (FEM, FDM, FVM)"

About The Course



Discretization techniques such as Finite Element Method (FEM), Finite Difference Method (FDM), and Finite Volume Method (FVM) are numerical methods used to solve partial differential equations (PDEs) that arise in various fields such as engineering, physics, and applied mathematics. These methods involve the partitioning of a continuous domain into smaller, discrete elements, enabling the PDEs to be approximated by a set of algebraic equations that can be solved using computational tools.

The course will begin with an overview of PDEs and their numerical solutions, followed by an introduction to the basic concepts and algorithms used in FEM, FDM, and FVM. The second part of the course will focus on the application of these methods in simulation. Participants will learn how to use simulation software to simulate physical systems and analyze the results of simulations. They will also learn how to validate their simulations by comparing the results with experimental data.

Program Objective

- Participants will gain a comprehensive understanding of FEM, FDM, and FVM.
- Participants will learn to apply these methods to solve PDEs and simulate physical systems.
- Participants will gain hands-on experience using simulation software to advance their research and professional careers.

Prerequisites

- Knowledge of undergraduate Mechanics of Materials, Heat Transfer and Fluid Mechanics.
- Functional Understanding of Calculus and Numerical Techniques.

Expected Outcome

- Comprehensive understanding of FEM, FDM, and FVM.
- Ability to apply these numerical methods to solve PDEs.
- Hands-on experience using simulation software.
- Effective analysis of simulation results.
- Advancement of research and professional careers.

WHO SHOULD ATTEND?

Students: UG, PG, PhD (Mechanical, Civil, Chemical)
Faculty of Engineering: (Mechanical, Civil, Chemical)
Other Professionals: Engineers & Scientists from Industry and R & D Organizations

RESOURCE PERSONS

Resource Persons for the course will be highly experienced faculty members from reputed institute like IITs, NITs and R & D Organizations.

IMPORTANT DATES

Last Date of Registration
2nd June 2023
(Midnight)

ADDRESS FOR COMMUNICATION

For any query, you can contact to the course coordinator

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For more details Visit:
www.nitsri.ac.in

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