

## One Week Online Short Term Training Program

on

## “Computational Fluid Dynamics”

(17<sup>th</sup>- 22<sup>nd</sup> August 2020)

Organized by

Department of Mechanical Engineering  
National Institute of Technology Srinagar



- Limited Seats (First come first serve)
- E-Certificate for Registered Participants
- Timings:  
Teaching & Discussion: 10:00 a.m. -1:00 p.m.  
Hands on: 2:00 -5:00 pm
- Apply online at: <https://forms.gle/7hmjMWAPQPsirWWL9>

## 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.

**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 : TEQIP-III  
A/c No. : 0391040100011025  
Bank Name : J & K Bank  
IFSC Code : JAKA0RECSGR (0 = Zero)  
Swift Code : JAKAINBBSRI

Last Date of Registration: 15<sup>th</sup> August 2020

## 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-II**

The participants need to register online by visiting <https://forms.gle/7hmjMWAPQPsirWWL9>. The screenshot of the payment should be uploaded while filling the form.

**Registration Fee**

For Internal Candidates	:	Rs 200/-
For External Candidates	:	
Students (UG/PG/PhD)	:	Rs 300/-
Faculty	:	Rs 500/-
Industry Personnel	:	Rs 1000/-
Foreign Delegates	:	USD 100

## ORGANIZING COMMITTEE

## Patron

Prof. Rakesh Sehgal  
Director, NIT Srinagar

## Co-Patron

Prof. M. F. Wani  
Coordinator TEQIP, NIT Srinagar

## Chariman

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## Coordinator(s)

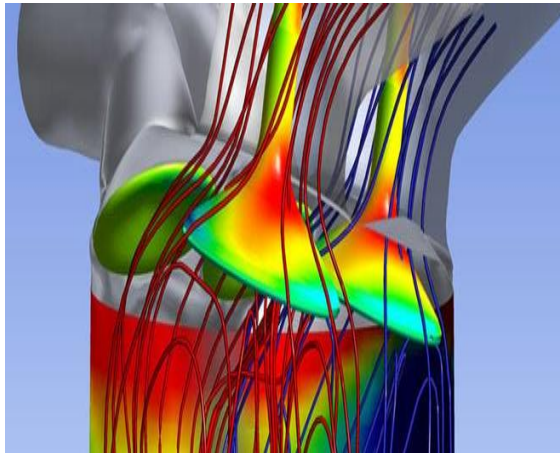
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HOW TO  
APPLY



## About The Course



The domain of fluid and thermal sciences is vast. The more we explore, the more we discover its omnipresent influences of our everyday life. The main objective of the course is to provide a unique opportunity of presenting and discussing recent developments in different aspects of advances in Computational Fluid Dynamics.

A special emphasis is also given to the new and emerging areas of the fluid and thermal sciences which are gradually becoming more and more relevant in improving the quality of human life and the environment around us.

We welcome you to this challenging field, which offers exciting opportunities in learning new computational techniques in solving transportation of heat, momentum and species in flow through engineering systems, understanding of flow through micro and nano-channels, development of micro-electro-mechanical systems (MEMS), enhancing heat transfer in nano and micro scales, development of more efficient fuels and fuel systems, exploring new energy sources, analyzing complex movement of biological fluids in biological systems, etc.

### Program Objective

- The short term course aims to provide a thorough understanding of the fluid dynamics problems.
- Ability to develop a Computational Fluid Dynamics (CFD) solver for detail investigation of the problems.
- An overview of the experimental flow visualization and measurements techniques for the practical problems.

### Expected Outcome

- Participants are expected to learn how to accumulate & solve computational problems.
- Participants should be able to assess the accuracy of a numerical solutions by comparison to known solutions of simple test problems and by mesh refinement studies.

### Prerequisites

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

### Program Content

- Introduction to CFD.
- Navier-Stokes Eqations.
- Geometry Creation.
- Generation of Mesh/Grid & Discretization Techniques.
- Experimental Data Analysis.
- Turbulence Modeling And Numerical Techniques in Heat Transfer.
- Inverse Heat Transfer.

### 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  
15<sup>th</sup> August 2020  
(Midnight)

### ADDRESS FOR COMMUNICATION

For any query, you can contact to the course coordinator  
**Dr. Manoj Kumar**  
Assistant Professor, MED  
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For more details Visit:  
[www.nitsri.ac.in](http://www.nitsri.ac.in)

### SCAN TO APPLY ONLINE



Organized by  
Department of Mechanical Engineering  
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