
One Week Online
Short Term Course on
“Introduction of CFD Problems on Fluid Flow and Heat Transfer”
November 23–27, 2020



Patron

Padma Shri, Professor R.K. Sinha
Vice Chancellor, Shri Mata Vaishno Devi University,
Katra

Chairman

Professor Eswaramoorthy Muthusamy
Registrar, Shri Mata Vaishno Devi University, Katra

Co-Chairman

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Organizing Secretary

Er. Varun Dutta
Assistant Professor, School of Mechanical Engineering
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Organizing Committee

Faculty of School of Mechanical Engineering



Organized By:

School of Mechanical Engineering
Shri Mata Vaishno Devi University, Katra

About SMVDU

Shri Mata Vaishno Devi University is a state university on 470-acre campus located near Katra, Jammu & Kashmir. The university is fully residential and provides technical education in the field of engineering, science, management, philosophy and other subjects of contemporary importance, with all technical courses recognized by AICTE, CIC and COA. It is located at distance of 45 km from Jammu Airport and 14 km short of the holy town of Katra. The Institute offers B Tech, M Tech, M Sc, MBA and PhD programmes in several disciplines of Engineering, Technology and Sciences. The University has also been ranked among the Top 100 Institutions in the category of Management institutions by NIRF 2020 and has also maintained its ranking among the Top 150 in the University Category & Overall Institutions Category in NIRF 2020. SMVD University is also listed at 71st rank in the World and at 4th position in India in The Times Higher Education Impact Rankings in the category of Sustainable Development Goals (SDG-7): Affordable and Clean Energy Category, 2020.

About the Course

Computational Fluid Dynamics (CFD) has become an important tool in furthering a variety of fields such as Mechanical Engineering, Civil Engineering, Chemical Engineering, Aerospace Engineering, Oceanography, Meteorology, Marine and Naval Engineering etc. Therefore, the scopes of CFD have tremendously been increased in the recent years. In order to accurately describe the CFD problems, an accurate numerical scheme, method and good knowledge of grids must be adopted. This short term course intends to provide a basic understanding of certain modelling for fluid flow and heat transfer practical application problems. Another aim of the short term course will to provide participants the opportunity to use and apply ANSYS (FLUENT) and OpenFOAM software along with mesh generation confidently.

Topics to be Covered

The short-term course aims to include following themes with particular emphasis to Mechanical Engineering, Civil Engineering, Chemical Engineering, Aerospace Engineering, Oceanography, Meteorology, Marine and Naval Engineering:

1. Introduction to basic governing equations of fluid flow and heat transfer.
2. Introduction to CFD software geometry creation along with meshing tool using (ICEM).
3. Overview of turbulence models and Natural heat transfer flow.
4. Tutorials on various engineering problems of fluid flow and heat transfer.

Objectives of the Course

1. The main objective of this STC is to provide a unique platform to facilitate the scientists, researchers, academicians, industrialist and UG, PG/PhD students to share the knowledge for computational fluid dynamics modelling skills.
2. Ability to provide a thorough understanding of the computational fluid dynamics problems.
3. An overview of training in application of ANSYS (FLUENT) and OpenFOAM software.

Resource Persons

- Dr. Kuldeep Singh, University of Nottingham, United Kingdom.
- Dr. Dushyant Singh, National Institute of Technology, Manipur.
- Mr. Ashutosh Kumar Singh, National Institute of Technology, Manipur.

Who can attend this STC through Online?

Students: (UG, PG, Ph.D)

Faculty of Engineering: (Any Branch)

Other Professionals: Engineers & Scientists from Industry and R&D organizations

Registration: Kindly register through this link: <https://forms.gle/owWFnnLwLbBR9U2cA>

Registration fee for attending this STC:

UG,PG/PhD Students: Rs 500/-

Faculty: Rs. 700/-

Engineers /Other professionals from industry: Rs.1000/-

For any query, you can contact :

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Details of the Bank Account:

Name: Head, School of Mechanical Engineering.

Acc. No. 0477010100000117

Bank and Branch: J&K bank, SMVDU, Campus.

IFSC code: JAKA0SMVDUN

IMPORTANT DATES

Last Date of Registration: November 19, 2020