Self-Financed One-Week
Virtual Short term Training Program
On

"Computational Fluid Dynamics: Part-II (Intermediate Level)"

August, 16-20, 2021

Organized by

Department of Mechanical Engineering

S.V. National Institute of Technology Surat, 395 007
Gujarat, India

About Institute

The institute was initially established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961 and it is elevated to Sardar Vallabhbhai National Institute of Technology with the status of 'Deemed University' on 4th October 2002. The Sardar Vallabhbhai National Institute of Technology (SVNIT) is one of the pioneering engineering institutions of the country, which has contributed many outstanding engineers in India and abroad. It is conducting six UG programs, seventeen PG programs, three integrated five years M.Sc. Programs, and Ph.D. program in all disciplines of engineering and applied sciences. Special attention is given to interdisciplinary research all across departments. The institute has an excellent placement record and growing by high pace in research as well.

Who will benefit?

Students: UG, PG, PhD
Faculty of Engineering:
Engineers & Scientists from Industry

About the Department

The Department of Mechanical Engineering is one of the oldest departments from the start of institute (1961). The department has qualified and dedicated faculty members with the specialization in various areas. The department is undertaking a UG programs in Mechanical Engineering, five PG programs (Thermal System Design, Mechanical Engg., Turbo Machines, CAD/CAM, and Manufacturing Engg.) and a research program leading to Ph.D. degree in related specialization. For industry people, master program by research and part time Ph.D. program are also available. The research facilities in mechanical department are developing with addition of new equipment and laboratories, and modernization of old laboratories.

Resource Persons

Resource Persons for the course will be highly experienced faculty members from the host Institute (SVNIT Surat) and IITs.

Last Date of Registration

August 13, 2021

Coordinators

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Registration fee

UG, PG, Research Scholars	₹ 500/-
Faculty	₹ 1000/-
Industry Delegate	₹ 2000/-

About the Course

The scopes of modelling and simulation have tremendously been increased in the recent years. With the faster growth of high performance computer, it has been possible to solve complex problems of fluid flow and heat transfer. The modelling techniques are also significantly improved because of the ever increasing computing power. Computational fluid dynamics modelling has now become extremely useful in the design of many thermal systems. The objective of the course is to emphasize the participants with the basic need of modelling for heat transfer problems. Basic concepts of various computational methods which include the traditional as well emerging methods would be presented. The course also aims at giving the participants an exposure to various complex topics of fluid flow and heat transfer.

Apply online at

https://sites.google.com/view/sttpcfd2

Course content

- Deeper understanding of Physics through CFD
- Higher order schemes to Finite Difference Method
- Coupled heat transfer using DOM-FVM
- Multiphase Flow Modeling
- Lattice Boltzmann Method
- Meshless Technique applied to Bioheat Transfer
- Inverse methods to heat transfer problem
- Transport in porous media
- Combustion modeling
- Demonstration on ANSYS-Fluent and/or OPEN- FOAM and/or Code Development

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