

### SRM Institute of Science and Technology

The current generation is experiencing exciting times in terms of scientific innovations and technology. In keeping with this trend, SRM Institute of Science and Technology provides the right freedom to experience and excel professionally. It has over 40,000 students and 2,800 faculty members, offering a wide range of undergraduate, post-graduate and doctoral programs in Engineering, Management, Medicine & Health sciences, Science & Humanities, Law, Fine arts and Agriculture. The Institute with over 35 years of service under its ambit has emerged as one of the largest private Universities in India. The Institute has set standards in education and knowledge creation across various fields through student and faculty abroad programs, flexible and dynamic curriculum, dedicated Research Institute with exciting research opportunities. The Institute offers wide variety of Experimental, Analytical and Computational facilities at academic level, and state of the art libraries, Hi speed Wi-Fi enabled campus, 4000 capacity AC auditorium, 100 online smart classrooms, hostels with premium facilities in terms of infra structure. SRM Institute is accredited by National Assessment and Accreditation Council (NAAC) with 'A' Grade and five B.Tech. programs in Kattankulathur campus have also been accredited by ABET (Accreditation Board for Engineering and Technology), USA.

### Department Profile

The Department of Chemical Engineering was established in 1995 as one of the departments of SRM Engineering College under University of Madras and was brought under the ambit of Anna University in 2002 and later started functioning under SRM Institute of Science & Technology (SRM University) from 2003. The department currently offers B.Tech. and M.Tech. in Chemical Engineering and Ph.D. under SRM Institute of Science and Technology. The department is equipped with sophisticated labs and computational laboratories. The department also houses a sophisticated instrumentation facility with HPLC, GC, AAS, FTIR etc. State of the art computational tools like Aspen

Plus®, Ansys® and AutoCAD® to name a few, caters to the academic and research needs of the students.

### About the workshop Background

In almost all industrial and natural processes, fluid flow is an inherent aspect, along with the mass and energy transport and the process Engineers and even scientist are required to have detailed knowledge of the fluid flow along with other parameters to thoroughly understand the process. Computational Fluid Dynamics (CFD) can be used for visualizing the fluid flow, thermal, and species transport in any engineering domain. The success of CFD is its ability to simulate flow in close to working conditions. One of the significant advantages of CFD compared to experimental is that we can study systems where controlled experiments are difficult to perform.

CFD is being widely used in Chemical, Food Processing, Mechanical, Petroleum, Biochemical, and Pharmaceutical industries, not to mention the core Aero and Automobile industries. Currently, the CFD tool has been applied in the varied fields like sports analysis, meteorology, aero-designing, drug delivery and chemical reactors involved in multiphase flow.

The main objective of the workshop is to give the essential elements involved in Computational Fluid Dynamics from the Chemical Engineering perspective with chemical engineering applications. Experts from IIT, NIT and Professionals are giving their perspectives of CFD with relevant applications. An important aspect of this workshop is the structure of the workshop, where emphasis is given on the interaction between the participants and the experts.

### Topics to be covered

- Recalling process modeling and mathematical tools for solving the engineering problems.
- Introduction to CFD and its applications.
- Fundamentals of essential elements involved in CFD.
- Hands-on training in developing code for simple industrial engineering problems.
- Modeling of multiphase flow reactors and overview of CFD in chemical engineering

## 5 Days FDP Workshop on Computational Fluid Dynamics with Chemical Engineering Applications

24<sup>th</sup> to 28<sup>th</sup> June 2019

### REGISTRATION FORM

Name :  
Qualification :  
Designation :  
Department :  
Institution :  
Address :  
Contact Tel. No :  
Email ID :  
Payment Details  
Online Transaction Ref. No:  
Date :  
Bank/Branch :  
Amount (Rs.) :  
₹ 1500/- (for Academic Faculty)  
₹ 2500/- (for Industry members)

**Applicant's Signature**  
(Fill the above form and mail us)

## ELIGIBILITY

The workshop is open for faculty members, research scholars of Chemical / Mechanical and allied fields and members of related industry establishments.

## REGISTRATION DETAILS

Registration Fee:

₹ 1500/- (For Academic Faculty members)

₹ 2500/- (For Industry members)

Registration fee includes lunch, refreshments and handouts. No TA/DA will be provided.

Registration fee is to be transferred online (NEFT/RTGS) to the following account:

Account Number : 459778182  
Account name : CHEM.ENGG.ASST.SRMEC  
MICR/IFSC : IDIB000S181  
Bank : Indian Bank, SRM University

Last date for registration: 20<sup>th</sup> June, 2019

Since the seats are limited, first come first serve basis will be followed.

All the participants of the workshop will be awarded participation certificate.

## ADDRESS FOR COMMUNICATION

**Dr. S. Sam David / Mr. V. Ganesh**

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ganesh.v@ktr.srmuniv.ac.in

## Chief Patrons

**Dr. T.R. Paarivendhar**, Chancellor, SRMIST  
**Mr. Ravi Pachamoothoo**, Chairman, SRMIST  
**Dr. P. Sathyanarayanan**, President, SRMIST  
**Dr. R. Shivakumar**, Vice President, SRMIST

## Co-Patrons

**Dr. Sandeep Sanchetti**, VC, SRMIST  
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**Dr. S. Ponnusamy**, CoE, SRMIST  
**Dr. M. Vairamani**, Dean-SBE, SRMIST

## Convener

**Dr. M. P. Rajesh**,  
Prof. & HoD of Chemical Engg., SRMIST

## Coordinators

**Dr. K. Suresh**, Associate Professor  
**Dr. S. Sam David**, Research Assistant Professor  
**Mr. V. Ganesh**, Assistant Professor

## Resource Experts include

**Dr. A. Kannan**, Chemical Engg., IIT Madras  
**Dr. R. Panneer Selvam**, Chemical Engg., NIT Calicut  
**Dr. S. Pushpavanam**, Chemical Engg., IIT Madras  
**Dr. Sreenivas Jayanti**, Chemical Engg., IIT Madras  
**Dr. L. Srivatsan**, Metacomp Technologies Pvt. Ltd.  
**Dr. S. Vengadesan**, Applied Mechanics, IIT Madras



**SRM**  
INSTITUTE OF SCIENCE & TECHNOLOGY  
(Deemed to be University u/s 3 of UGC Act, 1956)



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Organized by

**Department of Chemical Engineering**  
SRM Institute of Science and Technology  
Kattankulathur – 603 203  
Tamilnadu, India