ADDRESS FOR CORRESPONDENCE
**Dr. P. SIVASHANMUGAM**
**Dr. M. PERUMALSAMY**
**Dr. T. SIVASANKAR**
Workshop coordinators – Workshop on Computational Fluid Dynamics: Basics and Applications
Department of Chemical Engineering
NIT Tiruchirappalli – 620015

E-mail: cfdnitt@gmail.com
Phone: +91-431-2503106/3112/3131

**Note:** Please E-mail the registration form as well as send hard copy.

## HOW TO GET TO NIT-TRICHY

NIT Tiruchirappalli is located about 22 km from Tiruchirappalli Junction / Central Bus stand on the Tiruchirappalli - Thanjavur Highway. The simplest and economical way to reach NITT is by bus. Board Thanjavur bound route bus and get down at NITT. The journey time from Tiruchirappalli will be around 45 minutes.

## WHO SHOULD ATTEND

This workshop will be of particular interest to faculty members and research scholars involved in modeling of Fluid flow, heat transfer, mass transfer process, chemical and bioreactor reactor modeling, and energy conservation area. The process and project engineers employed in chemical and petrochemical industries can also attend this workshop. The number of participants will be restricted to 50.

## REGISTRATION

Application for participation in the workshop shall be sent to the Coordinator as per the given format along with proof of registration fee. The details of registration fees inclusive of GST is as follows:

| | |
|---|---|
| Participants from Industry: | **Rs. 4000/-** |
| Participants from Academia: | **Rs. 3500/-** |
| Research Scholars and Students: | **Rs. 3000/-** |

Payment of registration fee can be made through SBI-i collect (Tamil Nadu-> Educational Institutions -> Conference & Workshop NITT -> Workshop – Computational Fluid Dynamics (CHL DEPT)

## BOARDING AND LODGING

Boarding and lodging facilities will be provided on payment basis to the selected participants in the Hostel/Guest house (as per Institute norms) at NIT Tiruchirappalli based on the availability. Accommodation will be on twin sharing basis. Local Participants will not be provided accommodation.

## IMPORTANT DATES

| | |
|---|---|
| Last date for submission of applications | : **21-06-2019** |
| Intimation of selection | : **24-06-2019** |
| Confirmation of participation | : **26-06-2019** |

**ONE WEEK**

**WORKSHOP ON**

# Computational Fluid Dynamics:

# Basics and Applications

***(Self-Supported)***

1ST – 6TH JULY 2019

**COURSE COORDINATORS**

**Dr. P. SIVASHANMUGAM**
**Dr. M. PERUMALSAMY**
**Dr. T. SIVASANKAR**

***ORGANIZED BY***

**DEPARTMENT OF CHEMICAL ENGINEERING**

**NATIONAL INSTITUTE OF TECHNOLOGY**

**TIRUCHIRAPPALLI - 620 015**

## BACKGROUND

Computational fluid dynamics (CFD) is one of the important analytical method used in majority of engineering applications. CFD was first employed by Lewis Fry Richardson in the year 1922 in a weather forecasting scheme using differential equations and finite differences. Subsequently, it has been used for several engineering applications to understand the flow and heat transfer through a design process. Hence, this course would provide engineers, researchers and industrialist a through basic knowledge on CFD and its field of application through hands on sessions.

## CONTENT

- Introduction to CFD and governing equation of fluid dynamics
- CFD modelling of multiphase flows
- Numerical solution of the Navier-Stokes equations
- Fluid Flow inside a Convergent Divergent, sudden contraction flow domain
- Geometric Creation
- Fluent meshing & Component Systems
- Multi-phase fluidization
- Turbulent models
- Applications of CFD
- Thermal Mixing
- Cyclone Separator
- External flow in airfoil

## RESOURCE PERSONS

Sessions will be handled by Experts from Industry, NIT, and R&D organization.

## ABOUT THE DEPARTMENT

NIT Tiruchirappalli was setup in 1964 in rural surroundings with a view to develop the local environments. NITT ranked top among NITs and is in top 250 of QS Asia University rankings. The Department of Chemical Engineering at NITT was established in 1968 and is regarded as one of the premier institute for Chemical Engineering in India by industries and academia. It offers B. Tech programme in Chemical Engineering, M. Tech programmes in Chemical Engineering and Process Control & Instrumentation and Doctoral programme. The department is backed by highly qualified and experienced faculty members and are involved in teaching and research with a main focus on energy and environmental engineering, control systems and separations. The department is equipped with several state-of-art laboratories, computing facilities and analytical facilities.


## REGISTRATION FORM

ONE-WEEK WORKSHOP ON

## COMPUTATIONAL FLUID DYNAMICS: BASICS AND APPLICATIONS

**(Self-Supported)**

1ST – 6TH JULY 2019

Name :
Qualification :
Designation :
Sex : M / F
Department :
Organization :
Mailing Address:

Phone :
Email :
Accommodation Required : Y/N
Registration fee Transaction Details:
Ref. No. Date:

The details provided by me are true to the best of my knowledge and belief. Kindly register me for the One Week Workshop on "**Computational Fluid Dynamics: Basics and Applications**" to be held at NIT, Tiruchirappalli

Place:
Date: Signature of the Applicant

Prof./Dr./Mr./Ms./Mrs./_____
is an employee of our institute and his/her application is hereby sponsored and permitted to attend the "**ONE WEEK WORKSHOP on Computational Fluid Dynamics: Basics and Applications"** at NIT Tiruchirappalli during 1st – 6th JULY 2019, if selected.

Date: Signature of Sponsoring Authority
Seal:

Department of Chemical Engineering
National Institute of Technology Tiruchirappalli, Tamilnadu

# REGISTRATION FORM

One-week **WORKSHOP** on

## Computational Fluid Dynamics: Basics and Applications

(Self-Supported)

**1st – 6th JULY 2019**

Name :

Qualification :

Designation :

Sex : M / F

Department :

Organization :

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**Date:** **Signature of Sponsoring Authority**

**Seal:**