

Computational Fluid Dynamics (CFD)-Theory, modelling and applications in Process Industries

TEQIP Workshop on
CFD: Theory, modelling and applications in process industries
23th - 25th February 2017

Organized by
Indian Institute of Technology Hyderabad

Funded by Technical Education Quality Improvement Program (TEQIP), MHRD, India

REGISTRATION

DEADLINE:

17th February 2017 at 5pm
IST

DATE & VENUE:

23th - 25th February 2017
@ IIT Hyderabad Kandi
Campus

REGISTRATION FEE

TEQIP

Faculty/Students: FREE

Non-TEQIP

Faculty Rs. 6000/-
Students Rs. 3000/-
Industry/Others
..... Rs. 7500/-

Program/Payment Details

www.iith.ac.in/teqip/

REGISTRATION FORM ENCLOSED

FOR ANY QUERIES,

contact: 040 2301 8456
teqip-cfd2017@iith.ac.in

About the Workshop:

Despite of the fact that fluid dynamics have always been widely used in designing and manufacturing machines, automobiles and process industries for decades, it is the significance of computer technology and rapid advancements that have made CFD an element of precise and accurate computation in the engineering industry. As global industries tend to demonstrate a growing demand for innovative designing, engineering, and manufacturing processes, it is becoming imperative to understand thermal and fluid dynamics of innovation and seamless solutions for core problem areas. The significance of CFD analysis in engineering and manufacturing industries encompasses seamlessly calculating the fluid forces and understanding the impact of gas or liquid on the performance of a product. Effective computational fluid dynamics analysis facilitate efficient and quick simulation of heat transfer and fluid flow of a product, part or structure to determine its performance level across diverse fluid forces. When integrated with advanced CAD technology, it has the ability to take out the complexity and hassles from fluid flow analysis process, which can then be integrated as a regular part of the iterative design process. Keeping such requirement in mind, this workshop intends to provide an insight into the- basics of CFD, turbulence modelling, reacting flows, combustion modelling, multi-phase flow modelling and cover the aspects of process industry practical applications via hands-on exercises.

Topics to be covered:

Introduction to CFD, governing equations of fluid flow and heat transfer, discretization schemes based on finite difference, finite volume approach, pressure-velocity coupling methods, turbulence modelling, reacting flows, combustion modelling, and multi-phase flow modelling covering VOF, ASM and Eulerian- Eulerian approaches. Hands-on sessions will be demonstrated on ANSYS's Fluent platform with several process industrial applications.

Intended participants:

Faculty members and Students from academic institutes; Personnel from R&D organizations; Personnel from related industries.

Registration:

For TEQIP participants, registration is free, and accommodation and food are provided as per TEQIP norm. For Non-TEQIP participants, registration fee is as mentioned on the left; only lunch and tea are complimentary.

Early registration is recommended due to a limit on the number of participants.

Coordinators:

Dr. Narasimha Mangadoddy (Chemical Engineering) [Email: narasimha@iith.ac.in]
Dr. Raja Banerjee (Mechanical and Aerospace Engineering) [Email: rajabanerjee@iith.ac.in]
Dr. Venkata Subbaih (Mechanical and Aerospace Engineering) [Email: kvenkat@iith.ac.in]
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REGISTRATION FORM

(Completed form should reach us by 17th February, 2017)

Name:

Position:

Qualification:

Work Experience:

Address:

.....

Pin code:

Telephone:

Fax:

Email:

Whether currently registered for Ph.D. at a University? Yes/No

(If applicable) Department:

Institution:

Do you need accommodation? Yes/No

If yes, mention dates (23th, 24th, 25th February, 2017):

(Non-TEQIP participants: Please enquire with us about accommodation charges)

Date:

Signature

Signature of institute authority (TEQIP coordinator, when applicable) and Seal

Please return scanned copy of completed form to:

Email: teqip-cfd2017@iith.ac.in

Tel for enquiry: +91 (40) 2301 8456