

Completed Registration form should be sent to Course coordinators:

**Prof. Eldho T.I. / Prof. Y.M. Desai,
Course Coordinator,
Department of Civil Engineering,
Indian Institute of Technology Bombay,
Powai, Mumbai – 400 076**

Phone: (022) – 25767339 / 25767333

Fax: (022) –25767302 / 25723480

Email: eldho@civil.iitb.ac.in
desai@civil.iitb.ac.in

**Deadline for submitting application:
5 July, 2017**

Notification of acceptance: 7 July, 2017

- Incomplete application forms will not be entertained
- For additional copies of the registration form, please xerox or type in the format given

For further details:

<http://www.iitb.ac.in/~qip/>

Boarding & Lodging

Participants who need accommodation in the campus, will be provided on request, in IIT Student Hostels (subject to availability). Food will be available in Hostels/ canteen (participants should meet boarding and lodging expenditure from their DA).

Faculty

The teaching faculty constitutes experts from abroad & various engineering disciplines of IIT Bombay. The core faculty include Prof. Perumal Nithiarasu (PN), Swansea

University, UK Prof. Y.M. Desai, Prof. Eldho T.I., etc.

Venue for Classes

Classes will be held in Seminar Hall of Department of Civil Engineering, IIT Bombay.

Lecture Notes

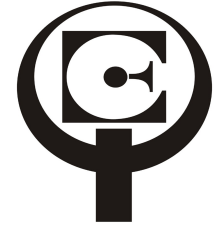
To fully realize the objectives of the course, the lecture notes will be made available at the time of registration at IIT Bombay

Date & Time of Registration:

14 August 2017, 9.00 AM at Civil Dept., IIT Bombay.

For any further information regarding QIP programmes at IIT Bombay, contact:

Coordinator, Q.I.P.,
IIT Bombay, Powai, Mumbai – 400 076.
Phone & Fax – (022) 25767048
Email: qip@iitb.ac.in



QIP SHORT TERM COURSE

on

Computational Methods with Applications to Fluid Dynamics

14 – 18 August 2017

Coordinators

**Prof. T.I. Eldho
Prof. Y.M. Desai**

**Department of Civil Engineering
Indian Institute of Technology Bombay
Powai, Mumbai 400 076
INDIA**

INTRODUCTION

Computationally modelling fluid flow has been a topic of intensive research of the last five decades. The progress has been excellent and approximate flow modelling through and over complex geometries is now possible. Although challenges remain in tackling large-scale turbulence and coupled problems, a large number of commercial and open-source codes have been successfully employed in modelling flow in aerospace, civil, mechanical and chemical engineering industries. Using such codes often needs an excellent fundamental knowledge in fluid dynamics, some basic understanding of computational methods and boundary conditions. The proposed course provides advanced knowledge for developing an understanding of computational algorithms and boundary conditions to study fluid dynamics problems.

BROAD OBJECTIVES

Introduction to computational modeling & numerical methods – Finite Difference Method; Finite Volume Method & Finite Element Methods and applications to CFD problems.

COURSE CONTENTS

The short-term course aims to include following themes with particular emphasis to Civil Engineering:

- ◆ Introduction to computational modeling & methods
- ◆ Fundamentals of computational fluid dynamics & coupled problems
- ◆ Computational methods in solution of CFD equations
- ◆ Introduction of new computational approaches
- ◆ Introduction of inter and multi-disciplinary problems
- ◆ Tutorials on various CFD problems

ELIGIBILITY

Faculty members of engineering colleges recognized by AICTE, working in the area of engineering are eligible to attend the course.

TRANSPORT, BOARDING & LODGING

Participants are entitled for Second Class (Sleeper Class) or III AC railway fare to and fro by the shortest route from college to IIT Bombay. All participants will be given auto fare from Kanjurmarg / Andheri to IIT on the dates of arrival and departure. Local participants will be paid second class railway fare or BEST Bus fare. Boarding and lodging will also be provided free of cost. Accommodation will be provided in the students Hostels only.

COURSE SCHEDULE & EVALUATION

This programme is scheduled to be held during 14-18 August 2017. Successful participants would be awarded 'Course Completion Certificate'.

REGISTRATION

There is no registration fee for the course for participants from AICTE approved Colleges. However all **shortlisted candidates** are required to confirm their participation by sending a **“Demand Draft of Rs.2,000/- in the name of “Registrar IIT Bombay”**. The above amount will be refunded to the participant if he / she attends the course. In case a participant does not attend the course, the above amount is forfeited.

The completed registration forms should be received by the Coordinators by **5 July, 2017**.

QIP Short Term Course on Computational Methods with Applications to Fluid Dynamics

14 August – 18 August 2017

Registration Form

Name (in block letters): _____

Gender: Male / Female _____

Designation: _____

Organization: _____

Mailing Address: _____

Mobile: _____

Fax: _____

Email: _____

Educational Qualification: _____

Area of Specialization: _____

Experience: _____

Accommodation in Campus: YES / NO

Signature of Applicant: _____

(IMPORTANT: BY SIGNING ABOVE HEAD OF THE COLLEGE/INSTITUTE CERTIFIES THAT APPLICANT IS A FACULTY MEMBER OF DEGREE LEVEL ENGINEERING COLLEGE RECOGNIZED BY AICTE)