

Organizing Committee:

Coordinators

Dr. R S Maurya
Dr. V R Kalamkar

Chief Organizer

Dr. A V Bhonsale
Head of the Department
Mechanical Engineering, SPCE.

Chief Patron

Dr. S Y Mhaiskar
Principal, SPCE.

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Registration fees:

Participants are advised to register on or before September 11th, 2009 with a registration fee of Rs.1200/-. Payment should be made through DD favouring “Principal, Sardar Patel College of Engineering” payable at Mumbai, India.

Venue:

Seminar Hall, First floor
Sardar Patel College of Engineering

Reporting Time: 9.00 AM

Speakers / Trainers:

Dr. Bhalchandra Puranik
Department of Mechanical Engineering
IIT Bombay, Mumbai.

Dr. Prasanna Nambier
Department of Mechanical Engineering
DBIT, Kurla.

Dr. R S Maurya
Department of Mechanical Engineering
SPCE, Mumbai.

Dr. V R Kalamkar
Department of Mechanical Engineering
SPCE, Mumbai.

CFD software training by,

Experts from:
Centre for Computational Technologies,
Pune. (www.cctech.co.in)

Two Day Orientation Program

on

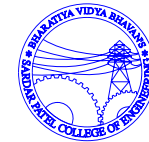
Computational Fluid Dynamics

(As per the revised syllabus of Fluid Mechanics adopted by University of Mumbai in TE (Mech / Auto))

18th and 19th September 2009

Coordinated by

Dr. R S Maurya
Dr. V R Kalamkar



Organized by

Department of Mechanical Engineering
Sardar Patel College of Engineering
Minshi Nagar, Andheri (west)
Mumbai - 400 058.

Overview:

Recent years have seen a phenomenal growth in the use of computers for solving engineering problems particularly in the domain of heat and fluid flow. This can be attributed to several factors. Increased computing power, complexity of the problem and absence of analytical solution, need of quick solution with moderate accuracy, high cost and huge time involved in experimentation are few reasons behind it. Computational Fluid Dynamics (CFD) deals with the methodology to handle heat and fluid flow problems using computers. It has grown to a maturity level up to some extent and is being successfully used by many industries and research institute as a problem solving tool. Need of CFD has been felt by Mumbai University on proper time and it is introduced in the revised syllabus to give exposure to the future engineers about this emerging problem solving technique. Present orientation program aims at upgrading knowledge of the faculties involved in teaching fluid mechanics subject at various institutes.

About SPCE:

Bharatiya Vidya Bhavan's Sardar Patel College of Engineering (SPCE) was established in 1962 as a government aided engineering college. It runs civil, electrical and mechanical engineering courses at under the graduate level. Several post graduate courses (regular and part time) are also run by civil and mechanical department. Over the last 46 years, the college has gained an excellent reputation in the field of technical education. It has maintained a proud tradition of excellent academic records by securing high ranks, gold medals and awards in the university examinations. The college has produced more than 8500 graduates and over 100 post-graduate engineers who are serving the nation at different frontiers of technology.

Course Objective:

The orientation program proposed to cater the need of faculties (Mumbai University) involved in teaching revised Fluid Mechanics subject at TE (Mechanical) Semester-V regarding computational fluid dynamics topic.

The objectives are –

1. To provide a platform for discussion regarding detailed course contents of newly introduced CFD topic. This will help to maintain uniformity in teaching contents at various institutes reaching a consensus on the nature, level and type of the question in the university examination.
2. To impart training on theoretical aspect of CFD as per the syllabus of University of Mumbai. A handout prepared by the experts will be provided for teaching the said topic.
3. To cultivate interest among the participants (faculties) to solve fluid dynamics problems using CFD techniques
4. To impart practical training on a commercial software by experts.

Course Contents:

1. Basic concepts of CFD
2. Discretization –spatial and temporal
3. Treatment of convective terms
4. General solution methodology of algebraic equation
5. Numerical solution of N-S Equation
6. Numerical stability and convergence

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Registration Form

Name _____
Designation _____
Department _____
Institute _____

Email-id _____
Phone No _____

DD details: Fees: Rs. 1200/

Draft No: _____ Date: _____

Bank _____

Signature of Participant

Head of the Institution