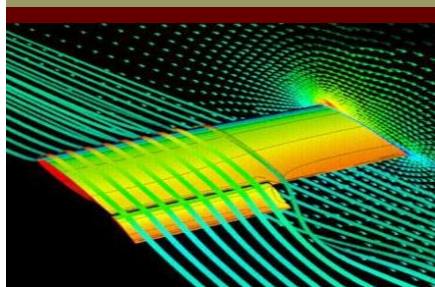


Mechanical Department

29th November to 3rd December 2014



SMT. S. R. PATEL ENGINEERING COLLEGE

Short Term Training Programme Report

Short Term Training Programme on “Product Development using Computational Fluid Dynamics”

Objectives:

CFD is a powerful tool for solving a wide variety of industrial problems. CFD is a branch of fluid mechanics that solve and analyze problems that involve fluid flows. This program includes the basic knowledge of CFD, theories behind it, how to use it in real problems.

Course Expert:

Mr. Kiran C patel
Founder and CEO
Encore Consultancy Service, Vadodara

Coordinator :

Prof. Ramesh N Mevada
HOD, Mechanical Dept.
SRPEC.

Co coordinator :

Prof. Vinod P Rajput
Mechanical Department,
SRPEC.

Summary:

Basics related to CFD and fluid mechanics were discussed. Different variety of tools problems related to aerodynamics and fluid dynamics were studied in detailed.

Topics :

1. Basic of CFD
2. What is CFD ?
3. Application of CFD in Industry
4. Process of CFD Geometric : Modeling, Meshing, Problem Definition, Solution, Post Processing
5. Various case studies

DETAIL OF INDUSTRIAL EXPERT LECTURE

The day one was started by warm welcome speech from Course Co coordinator and HOD of the Mechanical Dept. Prof. R. N. Mevada for Course Expert Mr. Kiran C Patel. Expert started the session by introducing us with this field, it's applications and challenges related to it. The first practice session is started by simple warm up exercise of fluid flow in circular pipe.

The second day This session is full of the basic theories related to fluid and fluid mechanics and important of its knowledge to solve the problems. The last very well enjoyed by all the participants by solving the problem 'Fluid Flow over the cylinder'.

The third day was started to strengthen the modelling skill. This session was full of the information about the various bars and containing tools, everything which seen in design modeller. importance of Aerofoil Theories in aerodynamics was demonstrated by some animation and very good videos and hands on problem of Aerofoil.

The fourth day was dedicated to get better result and to get better result mesh theory can't be ignored. The different types of meshing, its comparisons, applications and effects were discussed in detail. In last session of the day participants have tested the 'T' section shape in wind tunnel

The fifth day was full of practicing the problems of diffuser, and another field domain of thermal analysis.

PHOTO GALLERY DURING THE STTP



Participants' Feedbacks:

In the last session of the 5th day the feedback from the participants were collected to know the success bar this STTP. The di

Prime feedbacks were:

- Organizing of sessions were good
- The material provided to study the different problems are very good.
- Participant were interested to take part such learning/training programs.
- Videos showing the different theories and models are very good

STTP Participant :

There are 19 participants from Mechanical department of the college have participated this 5 day STTP on “Product Development using Computational Fluid Dynamics”.

Feed back from the participant	Excellent	Very good	Good	Inadequate
1. Relevancy of Topics	94.11 %	5.89 %	0 %	0 %
2.Overall Quality of Contents	88.23 %	11.77 %	0 %	0 %
3. Duration of Expert Lecture	88.23 %	11.77 %	0 %	0 %
4. Communication by Faculty	88.23 %	11.77 %	0 %	0 %