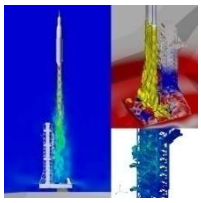
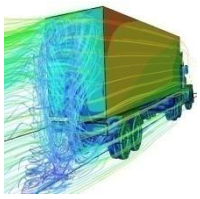
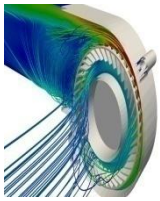
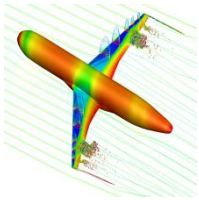
High Intense Hands-on Training Programme

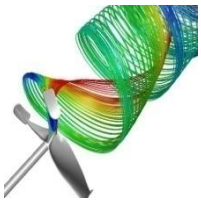
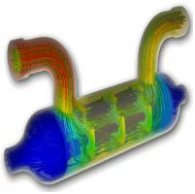
on

CFD Using SIEMENS Application Software

Computational Fluid Dynamics (CFD)



March 9-15, 2019

Coimbatore Institute of Technology

Coimbatore Institute of Technology (CIT), Coimbatore, is a Government Aided Autonomous Institution established in the year 1956. The Institute offers Under Graduate, Post Graduate and Ph.D research programmes in Engineering. The Institute is approved by AICTE, New Delhi, Affiliated to Anna University, Chennai and Accredited by National Board of Accreditation (NBA), New Delhi. The institute has a reputation with service of competent, well-qualified faculty and dynamic management to set highest standards in engineering research and development. The institute has collaboration with leading frontier universities and industries in India and abroad for the promotion of innovative research and development. National Institutional Ranking Framework (NIRF), MHRD, Govt. of India., has ranked CIT with 1st place in Tamil Nadu for Graduate Outcome and 62nd Place in NIRF 2018.

Teaching Learning Centre

Coimbatore Institute of Technology has been approved as Teaching Learning Centre (TLC) under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), Department of Higher Education, Ministry of Human Resource Development (MHRD) in December 2017. MHRD has sanctioned grant to establish Teaching Learning Centre in Coimbatore Institute of Technology for Raising the Quality of Teaching through training, retraining, refresher and orientation programmes in the disciplines of Academic, Research, and Management (ARM). CIT – TLC is established to improve the quality of teachers of technical education institutions in the regions of Tamil Nadu (West), Kerala, Karnataka, Andhra Pradesh, and Puducherry.

About the Course

The objective of this course is to teach the technique that is needed to conduct an accurate and efficient single-phase heat transfer analysis using CFD. Through this programme, the participants can understand the basic heat transfer mode of conduction, convection and radiation, and they will be able to begin their own simulations and address common numerical engineering challenges using STAR CCM+. The demonstrations will be carried out using Siemens industry software CFD Technology.

Topics Covered in this Course

Fundamental Equations of CFD	Fluid Flow	Numerical Flow Solution
Moving Reference Frames	Turbulence	Transition
Heat Transfer	Porous Media	Species and Passive Scalars
Eulerian Multiphase Flow	Lagrangian Multiphase Flow	Reacting Flow
Electrochemistry	Electromagnetism	Solid Mechanics
Aeroacoustics	Finite Element Method	Mesh Motion
Rotating Flow	Harmonic Balance	Vector and Tensor Algebra

Resource Person

Jerry Francis - Technical Consultant

MSc (Res), Aerodynamics & Aero-structures, University of Sheffield, UK

Experience of Resource Person:

- 5+ years of experience in conducting training for FEMAP with NX Nastran and NX/Simcenter 3D
- Specialized in Structural, Dynamics, Thermal, Space thermal and Flow Simulations
- 9+ years of experience in Aerospace and Automotive Industries
- Tools Used: Catia V5/V6, NX CAD, Femap with NX Nastran, Star CCM+ with CD Adapco, Ansys Fluent, Hypermesh, hypercrash with radios, Solidedge, Simcenter 3D- Structural, Dynamics, Thermal, Flow, Space thermal, Superelements

Projects Handled:

- Part of Airbus A350 team, to perform CAE analysis and validate the Galley structures using NX Nastran
- Valve simulation to calculate mass flow rate with varying inlet and outlet conditions using NX Flow
- Simulated automotive lightening systems for vibration test and thermal-flow simulation to withstand heat generated by the circuits, bulbs and LED's using NX CAE.

Registration Details

Eligibility

Faculty Members and Full Time Research Scholars of **Aerospace/Mechanical/Automobile/Mechatronics** disciplines are eligible to apply for this programme

Registration Procedure

- No Registration/Participation fee will be collected
- Interested participants are requested to register through the following Google Form link on or before March 03, 2019

  https://goo.gl/forms/HKMhXE0lRFjJkXn33
- The number of participants is limited to 30
- ***Participants for the course will be selected based on a two-stage filtering process***
- Selected participants will be intimated through e-mail by March 04, 2019
- Accommodation will be provided on prior request
- No spot registration is allowed
- For queries please contact **tlcp3@cit.edu.in**
- Participants should upload their permission letter (attached in this brochure) duly signed by the Head of Institute / Director
- There will be an assessment at the end of the programme, only based on the assessment performance the certificate will be issued

Organizing Committee

Chief Patron

Dr. S. R. K. Prasad
Correspondent, CIT Institutions, Coimbatore

Patrons

Mr. S. Rajiv Rangasami
Director, CIT Institutions, Coimbatore

Dr. R. Prabhakar
Secretary, CIT Institutions, Coimbatore
Chairperson, CIT – TLC, Coimbatore

President

Dr. V. Selladurai
Principal, CIT, Coimbatore
Co-Chairperson, CIT – TLC, Coimbatore

Convener

Dr. V. Manikandan
Project Coordinator, CIT – TLC, Coimbatore

Venue

Coimbatore Institute of Technology

Avinashi Road, Civil Aerodrome Post, Peelamedu,

Tamil Nadu, India – 641 014

Contact Details

Coordinator

Dr. N. Saranya

Project Officer,

Teaching Learning Centre,

Coimbatore Institute of Technology,

Coimbatore.

tlcp3@cit.edu.in

Ph: 9962823234

Permission Letter to Attend High Intense Hands-on Training Programme

on

CFD Using SIEMENS Application Software

March 09 to15, 2019

***** This Permission Letter should be uploaded in Google Registration Form***

***** Certificate will be awarded only to the participants who attend all the modules***

Mr/Ms/Dr _____ Department of_____

is permitted to attend High Intense Hands-on Training Programme on CFD Using SIEMENS Application Software at Teaching Learning Centre of Coimbatore Institute of Technology, Coimbatore from 09 to 15 March, 2019.

Name of the College :

Place :

Date :

Signature of Head of the Department

Signature of Head of the Institution / Director