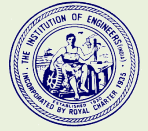# ENGINEERING STAFF COLLEGE OF INDIA

(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, Gachibowli, Hyderabad – 500 032. Telangana, India
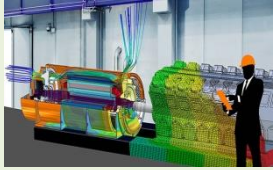
Management and Technology Division

Continuing Professional Development Programme on

Engineering Simulation using ANSYS & CFD
26 – 28 April 2021
(Classroom / Online Training)

Powered

ESCI UpSkill
A Smart Learning Platform

INTRODUCTION

Since, engineering simulation helps companies avoid the cost of product failure; companies are investing in creating virtual simulation platforms. Big brands are driven by great products, and great products result mainly from realistic simulation.

Traditionally, companies would design parts or subsystems in different engineering silos, and then subject their prototypes to physical tests at the later stage of product design. However, this physical testing will not give enough data for companies that produce smart products: cars, cell phones, wind turbines, etc that use thousands of components. Hence, virtual engineering simulation is increasingly preferred. Knowing how to do it is an important engineering software skill.

ANSYS has a whole set of products for you to perform simulation of structural aspects of a single product or complex interactions of subsystems. It will help you understand how products would work not only in ideal environments but also changing user's environments or during unexpected consumer usage.

ANSYS offers a suite of engineering simulation software for engineers and designers to virtually analyze how their products (and thousands of parts in them) work in real world environment, at an early stage of product design. ANSYS software is being used across a wide range of industries to analyze various performance parameters such as signal integrity, electromagnetic interference, thermal issues, and mechanical failure.

OBJECTIVES

The objectives of the programme are:-

- To generate awareness on Design fundamentals of ANSYS and CFD
- To develop and sharpen Technical, Design & Simulation Aptitude of the participants
- To enable the participants understand Design & Analysis for Manufacturing
- To discuss the various issues that the participants face every day in Design Analysis and capacitate them with Error Correction and Problem Solving skill

COURSE COVERAGE

The key areas to be deliberated in the programme are:

- Introduction to ANSYS
- FEA & ANSYS
- Modeling and Meshing
- Introduction to Structural analysis
- Types of Structural analysis
- Introduction to Thermal analysis
- Types of Thermal analysis
- Hands on experience on Structural and Thermal Analysis
- Introduction to CFD
- Mathematics behind CFD
- Meshing using ICEM CFD
- Solving CFD problems using ANSYS
- Case studies

METHODOLOGY

Methodology of the programme Includes

- Learning prerequisites skill through ESCI LMS Platform
- Classroom Hands-on Practical training at ESCI campus
- For Online Participants - Online Video Interactive sessions
- Case studies, Sharing of experiences

Centre for Promotion of Professional Excellence

FACULTY

Other faculty consists of experts from industry, research establishments, academia and experts who are into research work are involved, besides that from ESCI.

TARGET PARTICIPANTS

Professionals from Governments, Private sector and Public Sector Undertakings (from Design, Prototyping, Development, Service & Maintenance Divisions), Scientists working in Research Laboratories & Faculties of various Colleges & Universities, Startups into New product development, Dockyard personnel and repair shop personnel will find the programme useful.

COURSE COORDINATOR

Mr. N.V.S.S. SAGAR,
Management & Technology Division
Engineering Staff College of India
Old Bombay Road, Gachibowli – 500032, Hyderabad
Phone: Direct 040 6630 4111 & 6630 4112 & 6630 4105
Email: mt@escihyd.org, mtmkt@escihyd.org

PROGRAMME DATES & TIMINGS

Dates: 26 – 28 April 2021
After registration participant can access ESCI LMS platform for digital learning
Session timings will be from 10:00 – 17:00 hrs with One Hour Lunch Break, 15 Minutes Tea breaks.

COURSE FEE

Classroom Training: (Residential Fee)

Rs.15,000/- (Rupees Fifteen Thousand only) per Participant. Fee includes, course material, course kit, twin-sharing/single AC accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme.

Online Training:

Rs 9,000/- (Rupees Nine Thousand only) per Participant. Fee includes for Digital Learning, Experts Online Support and Reading Material Softcopy.

DISCOUNTS

Group Discount: Additional 10% discount for three or more participants if sponsored by the same organization.

(All discounts are applicable only if fee is received at ESCI before commencement of the programme)
Goods and Service Tax @ 18% is to be paid extra over and above the training. **PAN Card No AAATT3439Q; GST No. 36AAATT3439Q1ZV**. **H.S. No. 999293** (Under commercial training or coaching services – clause 65(105) (ZZC) of Finance act – 1994).

Programme fee is to be paid in in favour of **"THE INSTITUTION OF ENGINEERS (INDIA) – ENGINEERING STAFF COLLEGE OF INDIA"** in the form of demand draft payable at Hyderabad. Alternatively, the payment may be made by Electronic Fund Transfer (EFT) to ESCI - **SB A/c No.0432104000039631 with The IDBI Bank Ltd., Gachibowli Branch, Plot No. 2-53/2, JNIBF, IIIT Junction, Gachibowli, Hyderabad-500032 by RTG's/ NIFT / IFSC Code No: IBKL0000432.** While using EFT method of payment, please ensure to communicate us your company name, our Invoice reference and programme title.

REGISTRATION

Online registration shall be available on ESCI web portal http://www.escihyd.org/index.php/mt-upcoming-training. To register manually please send your nominations giving details of name, designation, contact address, email address, mobile no, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to: mt@escihyd.org, mtmkt@escihyd.org

CERTIFICATION

A Certificate of participation will be awarded to each participant on conclusion of the programme.