ENGINEERING STAFF COLLEGE OF INDIA

Autonomous Organ of The Institution of Engineers (India)
(IMS [ISO 9001:2015, ISO 14001:2015, ISO 50001:2018, ISO 45001:2018],
ISO/IEC 17025:2017 Certified, AICTE & CEA Recognized Institution)
Old Bombay Road, Gachibowli, Hyderabad – 500 032. Telangana, India

Management and Technology Division

Hybrid (Offline & Online) Continuous Professional Development Programme on

Engineering Simulation using ANSYS & CFD

(With Practical & Hands on Experience)

Dates: 22 – 26 June 2026

at ESCI Campus, Hyderabad

INTRODUCTION

Since, engineering simulation helps companies to 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. Hence, virtual engineering simulation is increasingly preferred.

ANSYS has a set of modules to perform simulation of structural aspects of a single product or complex interactions of subsystems. It helps to 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.

COURSE OBJECTIVE

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 skills

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 class room Sessions with Lecture/discussion with audio visual aid, benched marked practices if any, video shows, Chalk & Talk sessions, group discussions, case studies, debates, sharing of experiences, etc. All the sessions will be interactive demanding active participation from all the members. Case Method of Instructions will be the main method of knowledge facilitation.

TARGET PARTICIPANTS

Professionals from Governments, Private 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.

RESOURCE PERSONS

Faculty consists of experts from industry, research establishments and academia besides faculty from ESCI.

PROGRAMME DIRECTOR

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PROGRAMME DATES & TIMINGS

Dates: 22 – 26 June 2025

Timings : On the first day Registration will commence at **09:00 Hrs**. On all other days the programme timings will be from **09:45-17:15 Hrs** with breaks in between for tea and lunch.

COURSE FEE: Rs.27,500/- (Rupees Twenty Seven Thousand and Five Hundred only) per Participant + GST@18% is extra. 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: WebEx platform.
Rs. 17,500 /- (Rupees Seventeen Thousand and Five Hundred only) per participant + GST@18% is extra.

DISCOUNTS

- **Non-Residential Fee:** 10% discount on course fee is allowed for non-residential participants.
- **Group Discount:** Additional 10% discount for three or more participants if sponsored by the same organization.

Note: GST Nil for Central Govt. Departments (like DRDO, DGQA & Govt. Departments).

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 favor 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.

CERTIFICATION

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

GENERAL INSTRUCTIONS:

- ESCI encourages participants to present case studies from their respective organizations.
- ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200 h) and one day after conclusion (Check-out 1200 h) of the programme duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation).
- Well-developed Information Centre and Internet facilities are available to the participants free of cost.