Manufacturing Technology Training
An IMTMA initiative

Finite Element Analysis and Optimization

Date : 8 June to 18 July, 2020
Venue : 12/5, D1 Block, MIDC Chinchwad, Pune

Last date for registration 05 June 2020

INTRODUCTION

The Finite Element Analysis is a powerful engineering analysis and has been widely used in engineering since 1950. The course **"Finite Element Analysis and Optimization"** is a 6 weeks comprehensive programme for fresh mechanical engineers who are aspiring to build their career as **CAE Expert** in product manufacturing domain

This training presents the theory and applications of the Finite Element Method using ANSYS/HYPERWORKS. ANSYS Mechanical / HYPERWORKS are the FEA tools that are widely used across the manufacturing domain for analysing and solving complex mechanical problems. These tools are used to predict the behaviour of the components and sub-systems in the manufacturing and real-world environments. These soft wares globally supports engineering simulation solutions by delivering high quality products developed in lesser time through more information-based process. This course teaches FEM concepts and tool use in an integrated fashion.

FOCUS AREAS

- Basics of Finite Element Analysis FEA
- Basic & Advanced Solid Modeling
- Hands-on Training on ANSYS and HYPERWORKS
- Method of Import and align the geometry
- Making of geometry for FE modelling
- Generate shell-mesh & solid mesh with 2D and 3D elements
- Create & modify various geometric-entities
- Introduction to Static Structural Analysis
- Hands on training on Structural Analysis
- Advanced Structural Analysis (Dynamic, Nonlinear & Thermal)
- Generating The Report Of Analysis
- Typical live project exercise from Automobile, Machine Tool and Industrial machinery
- Revisiting of mechanical engineering fundamentals ie. SOM, Mechanics and Materials science
- Training on CAD modeling, manufacturing drawings, GD&T, Design of machine sub assembly and structures.

KEY TAKE AWAYS

- Strong theoretical understanding of FEA
- Application of FEM to practical engineering problems
- How to perform engineering simulations using ANSYS
- Structural mechanics simulations using ANSYS Mechanical
- Mathematical models underlying simulations
- Building simulations of real-world applications
- Verification and validation of simulations
- How to approach engineering analysis and simulations like an expert
- Efficient modeling techniques
- FEM competency to enter manufacturing companies as FEM expert

PARTICIPATION FEE

Rs. 75000/- +18% GST IMTMA Members / Micro Companies	**Rs. 90000/-** +18% GST IMTMA Non Members/ Others	**Rs. 40000/-** +18% GST Educational Institutions / Students	**Rs. 71250/-** +18% GST 5 % IMTMA Members / Micro Companies	**Rs. 85500/-** +18% GST 5 % IMTMA Non Members/ Others	**Rs. 67500/-** +18% GST 10 % IMTMA Members / Micro Companies	**Rs. 81000/-** +18% GST 10 % IMTMA Non Members/ Others

For Registration Contact

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REGISTRATION : Prior registration for participation is necessary. Number of participants is limited and will be accepted on 'First Come First Serve' basis. A Certificate of participation will be issued to participants.
Important Information : Participation fee includes, course material, working lunch and tea / coffee. Interested companies are requested to register online by clicking on 'REGISTER' button and by filling up the nomination authority and participant's details in specified form.