

Ansys FEA (with CFD)

Mode: Classroom

Duration: 30 hours

Target Audience:

- Mechanical Designers
- Structural Analysts

Course Contents:

DAY-1 (3 HRS.)	Day 1. Introduction to FEA, the bar element, derivation of stiffness matrix, transformation, analysis of a truss using ANSYS
DAY-2 (3 HRS.)	Day 2. The two-dimensional beam element, Analysis of a continuous beam and a portal frame using ANSYS
DAY-3 (3 HRS.)	Day 3. The three-dimensional beam element, Analysis of a automobile chassis using ANSYS
DAY-4 (3 HRS.)	Day 4. Introduction to plane stress, plane strain and axisymmetric problems, Analysis of a plate with a hole and a pressure vessel using ANSYS
DAY-5 (3 HRS.)	Day 5. Concept of mass matrix, natural frequency and modes of vibration, Analysis of free vibration of a beam modeled using plane elements using ANSYS
DAY-6 (3 HRS.)	Day 6. Concept of harmonic analysis and transient analysis, Forced vibration analysis of a beam using ANSYS
DAY-7 (3 HRS.)	Introduction to solid elements, Modeling of complex solids using ANSYS
DAY-8 (3 HRS.)	Plane and axisymmetric heat transfer problems and analysis of thermal stress using ANSYS
DAY-9 (3 HRS.)	Plane and axisymmetric electrostatic problems and electric field analysis using ANSYS
DAY-10 (3 HRS.)	Plane and axisymmetric magnetoostatic problems and magnetic field analysis using ANSYS