

ANSYS WORKBENCH (60 Hrs.) 30 Days

| Day | Day wise Topic |
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| 1 | Introduction to FEM Techniques Introduction to ANSYS Workbench Graphical User Interface Analysis procedure |
| 2 | Engineering Data ANSYS Engineering Data source library Assigning new material Importing Material Creating user material Adding new material in current library |
| 3 | ANSYS Design Modeler Introduction to Design Modeler GUI of Design Modeler Planes and sketches Sketching 3D Modelling J Teatures to create solids |
| 4 | ANSYS Design Modeler Patterns Symmetricity Lines and surfaces Boolean operations Body transformations |
| 5 | Static structural Analysis Introduction to Static Structural Analysis Loads and Supports systems I To Analysis SFD & BMD 2-D Analysis |
| 6 | Static structural Analysis Hydrostatic pressure Remote Force Applying Moments Bearing Loads |
| 8 | Steady State Thermal Conduction, Convection and Radiation Heat flux Internal heat generation Functional boundary condition |

| 9 | Thermal - Structure Coupling Project |
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| 10 | ANSYS Meshing I Introduction to FEM Techniques Global Meshing controls Local Meshing controls Generating Mesh Define element size Relevance center and number |
| 11 | Modal (Vibration Analysis) Basics of free vibration Natural frequency Number of mode shapes Modal Results |
| 12 | Explicit Dynamics Impact test analysis Crash test Non-linear and linear material failure Tensile test |
| 13 | Doubt Session |
| 14-15 | Linear Bucking |
| 16-18 | Rigid Dynamics |
| 19 | ANSYS Meshing II |
| 20 | Design Optimization |
| 21 | Design Optimization Design of Experiment Screening Method to optimize design |
| 22 | Topology Optimization |
| 23 | Advance Post Processing Viewing results Plotting graphs I I I |
| 24-25 | Transient Structure and Thermal Analysis |
| 26-30 | Major Project |