FUTURE GEN TECHNOLOGIES

ANSYS SYLLABUS

Chapter 1: Introduction

a. Introduction to the Finite Element Method
b. What is the Finite Element Method?
c. General Steps of the Finite Element Method
d. Explanation of 1D, 2D and 3D Elements with examples of ANSYS Elements
e. Need of FEM
f. Types of analysis that can be done using ANSYS
g. Advantages of the Finite Element Method
h. Limitations of FEA
i. About ANSYS Inc.
j. ANSYS Family of products with their capabilities
k. Types of analysis that can be done with ANSYS.
l. Introduction to the Ansys GUI
m. Operation Modes of Ansys
n. Product Launcher
o. Launcher Menu Options
p. The ANSYS GUI
q. The Icon Toolbar Menu
r. Quitting Ansys

Chapter 2: Selection Logic

a. Pan-Zoom-Rotate
b. Picking
c. Coordinate Systems

Chapter 3: Solid Modeling

a. An Overview of Solid Modeling Operations
b. Working with Boolean operations
c. Working Plane
d. Importing of 3D models

Chapter 4: Meshing

a. Free meshing or Mapped meshing
b. Setting Element Attributes
c. Selecting Element Type
d. Shape Function
e. Defining Element Types
f. Defining Section Properties
g. Assigning Element Attributes before meshing
h. Mesh Controls
i. The ANSYS Mesh Tool
j. Smart sizing
k. Meshing
l. Free Meshing
m. Mapped Meshing
n. Hybrid meshing
o. Mesh Extrusion
p. Volume Sweeping

Chapter 5: Material Properties

a. Material Library
b. Specifying properties

Chapter 6: Boundary Conditions

a. Types of Loads
b. Applying loads

Chapter 7: Solvers

a. Types of Solvers
b. Solver Setup
c. Load Step Options
d. Solving Multiple Load Steps

Chapter 8: Post-processing

a. Contour Plot Viewing
b. Time History Postprocessor (POST26)
c. Report Generator

Chapter 9: Introduction to Non-Linear Analysis

Chapter 10: Sample Structural Analysis

Chapter 11: Sample Thermal Analysis

Chapter 12: Sample Modal Analysis

Chapter 13: Tips & Tricks

a. Using the Toolbar & Creating Abbreviations
b. Introduction to APDL
c. Using Parameters
d. Using the Start File
e. Using the Session Editor
f. Using Input Files

Chapter 14: ANSYS Workbench

a. Introduction to ANSYS Workbench
b. Graphical User Interface
c. Static Structural Analysis
d. Modal Analysis
e. Thermal Analysis
f. Contact Recognition

- **Future gen training & course syllabus can make the student to challenge on the success of international interviews.**

ABOUT US

- **Future Gen Technologies Training center is an engineering training institute providing trainings on job oriented professional courses for . Our training programs cover Civil Engineering, Mechanical Engineering, Electrical Engineering & IT Engineering.**

- **The Aim of the Future Gen is to develop quality engineers by providing the real time practical knowledge.**

- **Future Gen Training center has a team of highly experienced & qualified teaching staff. Many of them are experienced with real time projects. Our courses training mainly focus on instructors past experience and practical examples. This will help the trainees to have a better understanding of the concept.**

- **Future gen technologies also comprise a placement cell and enjoy placement tie ups with many companies. Student gets the placement benefits after the completion of the course. Many of our students have been successfully placed with some reputed companies in India & other countries.**

WHY FUTURE GEN ?

- **Future Gen provides the real time training on 100% job oriented courses on international projects & make every student to work on individual project in the training period.**

- **Knowledge of Students who trained under Future Gen will be as good as experienced professionals.**

- **Future gen provides digital training by In-depth demonstration on every aspect of course topics.**

- **Future Gen provides the complete support after completion of your course**

- **We provide excellent quality of infrastructure to our students**

- **Future gen provides the special training classes on personality development and interview skills after completion of course with 100% placement assistance.**

- **Highly qualified faculty with industry experience**

- **Training will be provided based on 20% theory and 80% practical concept**

- **Get fee Refund if not satisfied**

WWW.FUTUREGENTECHNOLOGIES.COM

Thank & Regards,

FUTURE GEN TECHNOLOGIES,

AMEERPET,KPHB HYDERABAD