



# IFS Academy

Training for the future!!!

## **ANSYS Advanced Nonlinear Analysis Course Curriculum**

### **Chapter 1: Nonlinearities Overview**

- A. What is Nonlinear Behavior
- B. Nonlinear Solution Using Linear Solvers
- C. Three Types of Nonlinearities
- D. Nonlinear FEA Issues
- E. General Nonlinear Analysis Procedure

### **Chapter 2: Obtaining the Solution**

- A. Basic Concepts
- B. Automatic Solution Control
- C. Results File Options
- D. Solution Options
- E. Nonlinear Options
- F. Advanced Nonlinear Options
- G. Transient Options
- H. Nonlinear Diagnostics

### **Chapter 3: Post processing**

- A. Checking for Convergence
- B. The General Postprocessor
- C. The Results Viewer
- D. The Time-History Postprocessor
- E. Verification

### **Chapter 4: Basic Geometric Nonlinearities**

- A. Overview
- B. Three Kinds of geometric Nonlinearities
- C. Consistent Tangent Stiffness Matrix

- D. Building the Model
- E. Obtaining the Solution
- F. Postprocessing

**Chapter 5: Basic Plasticity**

- G. Overview
- H. Building the Model
- I. Obtaining the Solution
- J. Postprocessing

**Chapter 6: Introduction to Contact**

- A. Overview
- B. Basic Concepts
- C. Using the Contact Wizard
- D. Obtaining the Solution
- E. Postprocessing
- A. Assembly Contact

\*\*\*\*\*

Copyright 2009, IFS Academy, Pune

Phone: +91-20-6400 7296, Mob. No.: +91-99224 40102, Email: [training@infinitesolutionsindia.com](mailto:training@infinitesolutionsindia.com),

Visit Us At: [www.ifsacademy.org](http://www.ifsacademy.org)