



## Curriculum Of Etabs

### MODULE 1: INTRODUCTION TO ETABS

- Introduction of ETABS
- Starting ETABS
- Creating New file
- Opening Existing File
- Closing a file
- Saving & Saving As
- Module Review
- Salient Features
- Hardware Requirements
- ETABS Screen information
- Overview of Structural Analysis & Design
- Types of Structures
- Idealization of Structures
- Various Unit Systems
- Coordinate Systems
- Global Coordinate System
- Local Coordinate System
- ETABS Commands and Input Instructions

### MODULE 2: COMMAND FORMATS

- Free Formatting Input
- Commenting Input
- Meaning of Underlining in the Manual
- Problem Initiation and Title

### MODULE 3: STRUCTURAL MODELING

- What are Nodes & Beams?
- How things are done in the Input File
- Geometry Creation Methods
- Using Structure Wizard
- Things you can do in Structure Wizard
- Drafting the Geometry using a Snap / Grid
- Viewing
- Selecting
- Using Selecting While viewing 3D Geometry

### MODULE 4: JOINT COORDINATE SPECIFICATION

- Graphical User Interface

### MODULE 5: MEMBER INCIDENCE SPECIFICATION

- Graphical User Interface

### MODULE 6: OTHER USEFUL FUNCTION TO COMPLETE THE GEOMETRY

- Introduction
- Create the Basic Grid System
- Grid Dimensions – PLAN (How to draw a Grid Plan)
- Define a Grid System
- Story Dimensions - Define Story Data
- Different types of Views
- 3D Rendering View
- Draw Beams, Columns, Slabs & walls Commands
- Selection methods for Beams, Columns, Slabs & Walls
- Member Properties –Beta angle for Columns Orientation
- Cut Section
- Undo / Redo
- Dimensioning

### MODULE 7: PROPERTY DETAILS

- Material Specification
- Material Constants
- Constant Specifications

### MODULE 8: MEMBER PROPERTY SPECIFICATIONS

- Prismatic Property Specifications
- Tapered Member Specifications
- Specifying Properties from Steel Table
- User Table Specifications



## Curriculum Of Etabs

### MODULE 9: MEMBER

- Inactive / Delete Specifications
- Listing of Members / Joints by Specifications of Groups
- Member Offset
- Member Release Specifications
- Member Truss Specifications
- Member Tension / Member Compression Specifications

### MODULE 10: GLOBAL SUPPORT SPECIFICATIONS

- Fixed / Pinned / Fixed but Release / Spring Supports
- Inclined Supports

### MODULE 11: DESIGN OF ELEVATED WATER TANKS

- Modeling of Intz tank, circular tank, rectangular tank
- Hydro Static loading in these tanks Analysis and Design of these tanks
- Curved Member Specifications

### MODULE 12: LOADING PARTICULARS

- Loading Specifications
- Self-weight Loading Specifications
- Member Load Specifications
- Area Load
- Floor Load

### MODULE 13: SPECIFICATIONS

- Area Load
- Floor Load
- Load Combination Specifications
- Shell Uniform Load Sets

### MODULE 14: ANALYSIS

- Analysis Specifications

### MODULE 15: PRINT SPECIFICATIONS

- Pre- Analysis Print Commands
- Post Analysis Print Commands
- Load List Specifications

### MODULE 16: REPORT GENERATION

- Output file

### MODULE 17: WIND LOAD ANALYSIS

- Introduction to Wind load analysis Calculation of wind forces in High rise building
- Analysis and Design of building for Wind loading

### MODULE 18: DETAILING

- Detailing Process
- Edit Views
- Create and Manage Drawing Sheets

### MODULE 19: POST PROCESSING

- Introduction

### MODULE 20: FIRST STEPS

- Node Displacement
- Node Reactions
- Beam forces, Beam Stresses
- Beam Graphs
- Plate Contour
- Plate Results Along line
- Animation
- Reports

### MODULE 21: STAIR CASE DESIGN

- Modeling of Dogged legged and circular stairs.
- Loading
- Analysis and Design of these stairs



## Curriculum Of Etabs

### MODULE 22: SHEAR WALL DESIGN

- Different methods to Design Shear Wall
- Loading
- Designing
- Concrete Design Command
- Concrete Design Terminator
- IMPORT & EXPORT MODULES
- Import CAD file in Etabs Software
- Import STAAD file in Etabs Software
- How to work on Import Files.

### MODULE 23: STEEL DESIGN

- Analysis & Design of 2D/3D Truss
- Steel Design As per IS 800
- Steel joist Design
- Steel connection Design
- Allowable Stresses
- Axial Stresses
- Bending Stresses, Shear Stress
- Combined Stress
- Parameter Specifications
- Code Checking Specifications
- Member Selection Specifications
- Tabulated Results of Steel Design

### MODULE 24: SEISMIC ANALYSIS

- Introduction to Design of Earthquake Resistant Building
- Earthquake loading in high rise buildings
- Implementation of various load combinations of Earthquake
- Analysis using IS 1893-200/2016
- Analysis and Design of building considering Earthquake loading