



IFS ACADEMY

Training For The Future!!

Advanced TEKLA Structural (Steel) Design

Course Curriculum

(Duration: Classroom: 70 Hrs., Online: 60 Hrs.)

Chapter 1: Introduction to Tekla

- a. Overview of Tekla
- b. Understanding Environment, Role and Configuration
- c. Create model and save the file
- d. Graphical user interface

Chapter 2: Modelling in Tekla Basic

- a. Tekla Structures basic tools and commands
- b. Use of Snaps and Level of detail in Tekla
- c. Insertion of Reference Models
- d. Grid generation in an example project in Tekla
- e. Creation of Levels in Tekla

Chapter 3: Concrete Modelling

- a. Isolated Footing generation part 01
- b. Isolated Footing generation part 02
- c. Creation of piles in Tekla
- d. Creation of strip footings in Foundation with Tekla
- e. Creation of Slab and discount of materials in Tekla
- f. Creation of Structural Columns in Tekla
- g. Creation of concrete beams in Tekla

Chapter 4: Steel Modelling

- a. Creation of Steel Columns in Tekla
- b. Creation of steel beam in Tekla – Single beam, polybeam, curved beam, twin profile, orthogonal beam
- c. Create plate, bent plate
- d. Welding
- e. Bolting

Chapter 5: Assembly and Part Details

- a. Modelling detail connection between steel parts
- b. Modifying and editing connection
- c. Understanding what is part and assembly details
- d. Assembly components

- e. Detecting and fixing clashes

Chapter 6: Various types of Connections

- a. Base plate connection
- b. Column to beam moment connection
- c. Column to beam shear connection
- d. Beam to beam shear connection
- e. Stair

Chapter 7: Pre Engineered Building

- a. Components of PEB
- b. Bracing
- c. Purlin connection
- d. Bracing connection

Chapter 8: Numbering and Detailing

- a. Detailing views
- b. Generation of 2D drawings plans, elevations and detail views
- c. Numbering of main parts and assembly parts
- d. Single Part drawings and assembly drawings

Chapter 9: Managing drawings

- a. Revising and updating
- b. Working with templates
- c. Printing drawings
- d. Working with NC files

Chapter 10: BOQ

- a. Understanding detail bill of quantities
- b. Exporting BOQ files

Chapter 11: Precast Modelling

- a. Column to beam connection
- b. Beam to beam connection
- c. Precast hollow core slab
- d. Precast miscellaneous components

Chapter 12: Rebar Modelling

- a. Rebar in slab
- a. Rebar in beam and column
- b. General rebar detailing

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