

EASWARI ENGINEERING COLLEGE

(Autonomous)

Department of Civil Engineering

CORE TRAINING ON BIM

SYLLABUS :

REVIT ARCHITECTURE – Syllabus (40 hrs)

Chapter 1: Introduction to BIM and Autodesk Revit

- a. BIM and Autodesk Revit Overview of the Interface Starting Project
- b. Overview of the Interface
- c. Starting Project
- d. Viewing Commands

Chapter 2: Basic Sketching and Modify Tools

- a. Using General Sketching Tools
- b. Editing Elements
- c. Working with Basic Modify Tools
- d. Working with Additional Modify Tools

Chapter 3: Starting Structural Projects

- a. Linking and Importing CAD Files
- b. Linking in Revit Models
- c. Setting Up Levels

Chapter 4: Modeling walls

- a. Modeling Walls
- b. Modifying Walls
- c. Creating layers in walls

Chapter 5: Working with Doors And Windows

- a. Inserting Doors and Windows
- b. Loading Door and Window Types from the Library
- c. Creating Additional Door and Window Sizes

Chapter 6: Working With Curtain Walls

- a. Creating Curtain Walls
- b. Adding Curtain Grids
- c. Working with Curtain Wall Panels
- d. Attaching Mullions to Curtain Grids

Chapter 7: Working with Views

- a. Setting the view Display
- b. Duplicating View
- c. Adding Callout Views
- d. Elevations and Sections

Chapter 8: Adding Components

- a. Adding Components
- b. Modifying Components

Chapter 9: Modeling Floors

- a. Modeling Floors
- b. Creating Shaft Openings
- c. Creating Sloped Floors

Chapter 10: Modeling Ceilings

- a. Modeling Ceilings
- b. Adding Ceiling Fixtures
- c. Creating Ceiling Soffits

Chapter 11: Modeling Roofs

- a. Modeling Roofs
- b. Creating Roofs by Footprint
- c. Establishing Work Planes
- d. Creating Roofs by Extrusion

Chapter 12: Modeling Stairs, Railing & Ramps

- a. Creating Component Stairs
- b. Modifying Component Stairs
- c. Working with Railings
- d. Sketching Custom Stairs
- e. Creating Ramps

Chapter 13: Creating Construction Documents

- a. Settings Up Detail Views
- b. Adding Detail Components
- c. Annotating Details

Chapter 14: Annotating Construction Documents

- a. Working with Dimensions
- b. Working With Text
- c. Adding Detail Lines and Symbols
- d. Creating Legends

Chapter 15: Adding Tags and Schedules

- a. Adding Tags
- b. Adding Rooms and Tags
- c. Working with Schedules

Chapter 16: Creating Details

- a. Setting Up Detail Views
- b. Adding Detail Components
- c. Annotating Details
- d. Keynoting and Keynote Legends

REVIT MECHANICAL – Syllabus (40 hrs)

Chapter 1: Introduction to BIM and Autodesk Revit

- a. BIM and Autodesk Revit Overview of the Interface Starting Project
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- c. Starting Project
- d. Viewing Commands

Chapter 2: Basic Sketching and Modify Tools

- a. Using General Sketching Tools
- b. Editing Elements
- c. Working with Basic Modify Tools
- d. Working with Additional Modify Tools

Chapter 3: Basic Systems Tools

- a. Connecting Components
- b. Working with Additional Modify Tools
- c. Creating Systems – Overview

Chapter 4: Starting Systems Projects

- a. Linking in Revit Models
- b. Setting Up Levels
- c. Copying and Monitoring Elements
- d. Batch Copying Fixtures
- e. Coordinating Linked Models

Chapter 5: Working with Views

- a. Setting the View Display
- b. Duplicating Views
- c. Adding Callout Views
- d. Creating Elevations and Sections

Chapter 6: Spaces and Zones

- a. Preparing a Model for Spaces
- b. Adding Spaces
- c. Working with Spaces
- d. Creating Zones
- e. Creating Color Schemes

Chapter 7: Energy Analysis

- a. Preparing a Project for Energy Analysis
- b. Analyzing the Heating and Cooling Loads
- c. Exporting for Secondary Analysis

Chapter 8: HVAC Networks

- a. Adding Mechanical Equipment and Air Terminals
- b. Adding Ducts and Pipes
- c. Modifying Ducts and Pipes

Chapter 9: Plumbing Networks

- a. Adding Plumbing Fixtures and Equipment
- b. Adding Plumbing Pipes
- c. Modifying Plumbing Pipes
- d. Adding Fire Protection Networks

Chapter 10: Advanced Systems for HVAC and Plumbing

- a. Creating and Modifying Systems
- b. Creating Automatic Layouts
- c. Testing Systems

Chapter 11: Creating Construction Documents

- a. Setting Up Sheets
- b. Placing and Modifying Views on Sheets
- c. Printing Sheets

Chapter 12: Annotating Construction Documents

- a. Working with Dimensions
- b. Working with Text
- c. Adding Tags
- d. Adding Details lines and Symbols
- e. Creating Legends

Chapter 13: Creating Details

- a. Settings Up Detail Views
- b. Adding Detail Components
- c. Annotating Details

REVIT STRUCTURE – Syllabus (40 hrs)

Chapter 1: Introduction to BIM and Autodesk Revit

- a. BIM and Autodesk Revit Overview of the Interface Starting Project
- b. Overview of the Interface

- c. Starting Project
- d. Viewing Commands

Chapter 2: Basic Sketching and Modify Tools

- a. Using General Sketching Tools
- b. Editing Elements
- c. Working with Basic Modify Tools
- d. Working with Additional Modify Tools

Chapter 3: Starting Structural Projects

- a. Linking and Importing CAD Files
- b. Linking in Revit Models
- c. Setting Up Levels

Chapter 4: Structural Grids and Columns

- a. Adding Structural Grids
- b. Placing Structural Columns

Chapter 5: Foundations

- a. Modeling Walls
- b. Adding Wall Footings
- c. Creating Piers and Pilasters
- d. Adding Isolated Footings

Chapter 6: Structural Framing

- a. Modelling Structural Framing
- b. Adding Trusses
- c. Modifying the Frames

Chapter 7: Working with Views

- a. Setting the view Display
- b. Duplicating View
- c. Adding Callout Views
- d. Elevations and Sections

Chapter 8: Adding Structural Slabs

- a. Modeling Structural Slabs
- b. Creating Shaft Openings

Chapter 9: Structural Reinforcement

- a. Structural Reinforcement
- b. Adding Rebar
- c. Modifying Rebar
- d. Reinforcing Walls, Floors and Slabs

Chapter 10: Structural Analysis

- a. Preparing Projects for Structural Analysis
- b. Viewing Analytical Models
- c. Adjusting Analytical Models
- d. Placing Loads

Chapter 11: Creating Construction Documents

- a. Setting Up Sheets
- b. Placing and Modifying Views on Sheets
- c. Printing Sheets

Chapter 12: Annotating Construction Documents

- a. Working with Dimensions
- b. Working with Text

- c. Adding Tags
- d. Adding Details lines and Symbols
- e. Creating Legends

Chapter 13: Creating Details

- a. Settings Up Detail Views
- b. Adding Detail Components
- c. Annotating Details

Chapter 14: Scheduling

- a. Structural Schedules
- b. Graphical Column Schedules
- c. Working with Schedules



Conducted Core Training titled “BIM TECHNICAL TRAINING” for IV Year Civil Engg. Students of Batch (2019-2023) with the support of industrial experts from BIM TECHNICAL TRAINING SOLUTIONS Pvt Ltd (BTTS) in month of April 2022.

