ECONSTRUCT

DESIGN & BUILD PVT. LTD.

DESIGN BUILD DELIVER

Our Services:

Consultancy
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Syllabus

1 ETABS

INTRODUCTION: THEORY

1.Software algorithm.
2.Capabilities of the software.
3.Strengths and weaknesses of the software.
4.Etabs manual.
5.Significance of menu buttons and icons.
6.Sample models and templates.
7.Hands on software on sample templates.

MODELING: PROCESS AND TECHNIQUES

1.Geometry creation process
2.Modeling through import method: 2d import, 3d import
3.Other import techniques.
4.Property assignment through automation existing templates.
5.Loadings: dead, live, wind, earthquake, temperature, notional, live load reduction.
6.Details of wind tunnel & its loadings, standardization of wind model & Etabs model.
7.Releases, diaphragms, all definition parameters.
8.Checks on modeling techniques.
9.Modeling of steel & composite structure
10.Hands on software to perform the modeling process and techniques.

ANALYSIS: PROCESS AND TECHNIQUES

1.Static analysis
2.Dynamic analysis
3.Second order p-delta analysis
4.Sequential analysis
5.Time history analysis
6.Significance of each analysis and its uses.
7.Checks on lateral stability, deflection, story drift, torsional irregularity, mass irregularity and stiffness irregularity.
8.Hands on software to perform the analysis and its checks.

DESIGN: METHODS AND TECHNIQUES

1.Design of columns and beams: methodology & limitations.
2.Design of composite columns.
3.Design of walls & slabs

SAFE

INTRODUCTION: THEORY

1.Software algorithm.
2.Capabilities of the software.
3.Strengths and weaknesses of the software.
4.Safe manual
5.Significance of menu buttons and icons.
6.Sample models and templates.
7.Hands on experience on sample templates.
8.Different foundation systems and their significance.

MODELLING: PROCESS AND TECHNIQUES

1.Geometry creation process
2.Modeling through import method: 2d import.
3.Combined, complex foundation system
4.Modeling of foundations, basements, footings and flat slabs.
5.Property assignment of rigid zones for walls and ramps.
6.Usage of insertion point for beams and columns.
7.Property assignment for spring supports.
8.Uses of design strips.
9.Loading: dead, live, wind, earthquake, temperature, notional, live load reduction.
10.Releases, supports, all definition parameters.
11.Checks on modeling techniques.

ANALYSIS: PROCESS AND TECHNIQUES

1.Interaction between Etabs and Safe.
2.Soil structure and interaction.
3.Checks on foundation system
    a)Deflection.
        Short term deflection.
        Long term deflection considering creep.
    b)Crack width.
    c)Punching shear, etc.
4.Reinforcement checks.
5.Differential settlement of foundation and its control.
6.Non linear analysis by considering long term creep.
7.Non linear analysis for cracked conditions.
8.Checks on foundation system.
9.Significance of each analysis and its uses using various codes.

DESIGN: METHODS AND TECHNICAL

1.Design of stirrups.
2.Design of slabs based on finite element method.
3.Design of raft & pile foundations.
4.Design methodology.
5.Design of punching shear reinforcement (stud rails).
6.Generating output & display of deformed geometry.

3 AUTOCAD

FUNDAMENTAL REASON FOR IMPLEMENTING OF CAD

1.Starting Autocad
2.Capabilities
3.Strengths & weakness
4.Autocad manual
5.Significance of menu buttons & icons
6.Sample models and templates
7.Hands on software on sample templates

GEOMETRY CREATION TECHNIQUES

1.Basic geometric constraints
2.Basic dimensional constraints
3.Geometry creation
4.Computer aided design through existing templates
5.Import techniques
6.Creation of 2d & 3d modules
7.Creation of combined complex geometries
8.Export techniques
9.Hands on software for geometry creation process and techniques.

GEOMETRY CREATION FORMATS

1.Architectural layout & plans
2.Structural layout & plans
3.Electrical layout & plans
4.Plumbing layout & plans
5.Hands on software to create various geometry formats

COMPUTER AIDED DESIGN & DRAFTING TECHNIQUES

1.Implementation of 2d & 3d workspace elements in design
2.Computer aided design of steel, rcc & fabricated structures.
3.Creation of architectural elements
4.Creation of structural elements
5.Creation of electrical elements
6.Creation of plumbing elements
7.Creation of plans, sections & elevations
8.Superimposition of various elements
9.Hands on software to create the designs

DETAILING TECHNIQUES

1.Creation of detailed sections
2.Publishing drawing parameters
3.Printing drawing parameters

4 REVIT

FUNDAMENTAL REASON FOR IMPLEMENTING OF REVIT ARCHITECTURE

1.Starting Revit architecture
2.Capabilities
3.Strengths & weakness
4.Revit architecture manual
5.Significance of menu buttons & icons
6.Sample models and templates
7.Hands on software on sample templates

GEOMETRY CREATION TECHNIQUES

1.Geometry creation
2.Geometry creation through existing templates
3.Creation of families
4.Import techniques
5.Creation of plans, sections & elevations
6.Creation of combined complex elevations
7.Export techniques
8.Hands on software for geometry creation process and techniques

GEOMETRY CREATION FORMATS

1.Architectural layout & plans
2.Architectural grids & constraints
3.Creation of architectural families
4.Real time rendering
5.Hands on software to create various geometry formats

OUTSTANDING CAPABILITIES

1.Derivation of bill of quantities
2.Cost analysis
3.High quality rendering with various add-ins
4.Project report creation
5.Instantaneous update of project
6.Hands on software to experience the capabilities

DETAILING TECHNIQUE

1.Creation of detailed sections
2.Publishing drawing parameters
3.Printing drawing parameters

See You at

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