Concrete Structural Design Diploma :-

| Training course	Duration	Sessions
CSI SAP	28	7
CSI ETABS	28	7
CSI SAFE	20	5

Introduction : -

Engosoft had developed the structural design diploma to satisfy all the needs of the structure design and increase the design efficiency by gaining more skills . Master the capabilities of your structural analysis and design software and apply best practices to improve information modeling skills, increase productivity, and enhance infrastructure project quality.

Each of these programs offers unique capabilities and tools that are tailored to different types of structures and problems, allowing users to find just the right solution for their work. SAP2000 is intended for use on civil structures such as dams, communication towers, stadiums, industrial plants and buildings. CSi Bridge offers powerful parametric design of concrete and steel bridges. ETABS has been developed specifically for multi-story commercial and residential building structures, such as office towers, apartments and hospitals. The SAFE System provides an efficient and powerful program for the analysis and design of concrete slabs and foundations, with or without post-tensioning. PERFORM-3D is a highly focused nonlinear tool offering powerful performance based design capabilities.
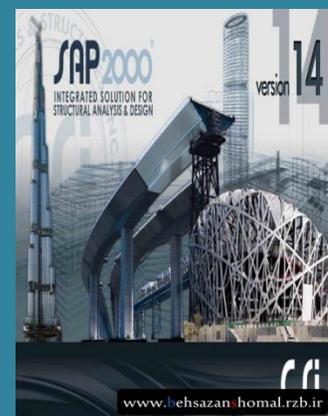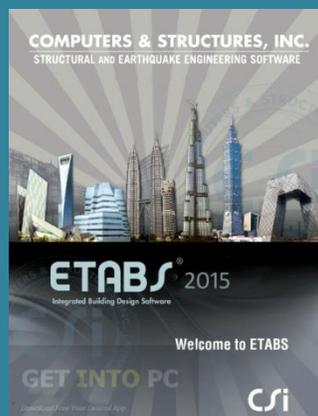
(CSI SAP)

The SAP name has been synonymous with state-of-the-art analytical methods since its introduction over 30 years ago. SAP2000 follows in the same tradition featuring a very sophisticated, intuitive and versatile user interface powered by an unmatched analysis engine and design tools for engineers working on transportation, industrial, public works, sports, and other facilities.
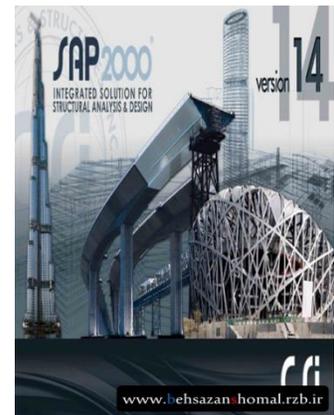
Course outline :

1. Introduction.(Meaning of Finite Element)
2. Analysis Of 2D Frames.
3. Design of Solid Slab.
4. Design of Flat Slab.
5. Design of Columns "Excel".
6. Design of Hollow Block Slab.
7. Design of Paneled Beams.
8. Design of Stairs.
9. Integration between AutoCAD To SAP.
10. Joint Constraints.
11. Design of 2D Truss.
12. Design of Raft.
13. Design of Pre-stressed Girders.
14. Design of 3D Modeling and Applying Earthquake Wind Load.
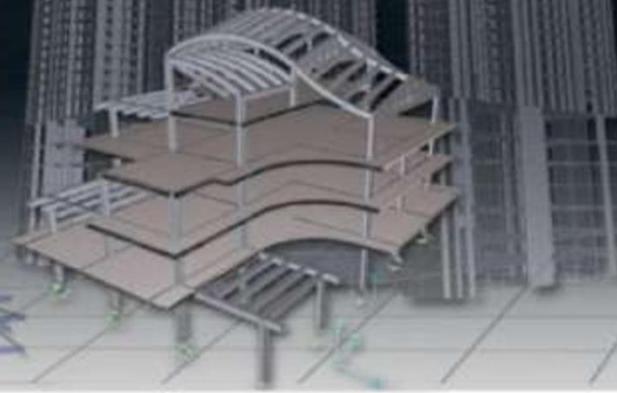
(CSI   ETABS)

The innovative and revolutionary new ETABS is the ultimate integrated software package for the structural analysis and design of buildings. Incorporating 40 years of continuous research and development, this latest ETABS offers unmatched 3D object based modeling and visualization tools, blazingly fast linear and nonlinear analytical power, sophisticated and comprehensive design capabilities for a wide-range of materials, and insightful graphic displays, reports, and schematic drawings that allow users to quickly and easily decipher and understand analysis and design results.
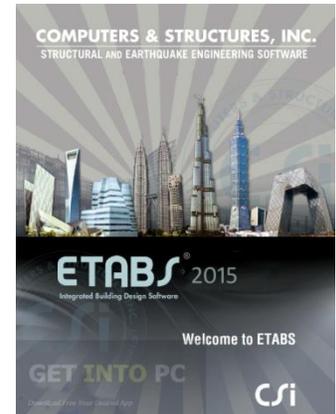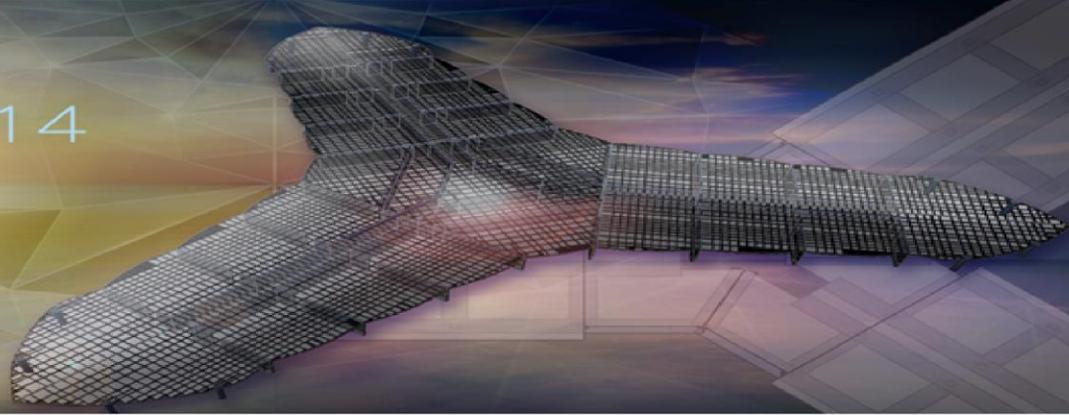
Course outline :

1. Introduction and Definitions.
2. 3D Modelling.
3. Applying Earthquake and Wind Load "Static & User Defined".
4. Wind Load by UBC97.
5. Earthquake by UBC97.
6. Non-Linear Sequential Analysis.
7. Industrial Building.

(CSI   SAFE)

SAFE is the ultimate tool for designing concrete floor and foundation systems. From framing layout all the way through to detail drawing production, SAFE integrates every aspect of the engineering design process in one easy and intuitive environment. SAFE provides unmatched benefits to the engineer with its truly unique combination of power, comprehensive capabilities, and ease-of-use.
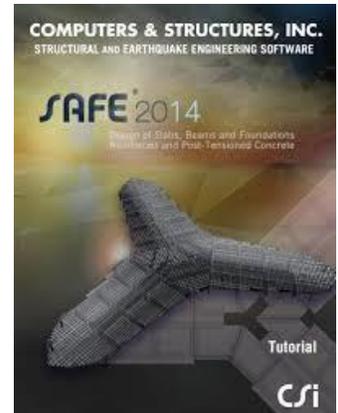
Course outline :

1. Design of Flat Slab.
2. Design of Solid Slab.
3. Long-Term Deflection.
4. AutoCAD To SAFE.
5. ETABS TO SAFE.
6. Foundation Modeling (all Types of foundations) .