



STRUCTUREX PVT. LTD.

PG in High Rise & Tall Structure

Learning Module Detail

07 Months DURATION	160-180 TOTAL HOURS	9+ LIVE PROJECTS	IS+ASCE+BS CODE STANDARDS
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Program Overview

This program builds job-ready expertise in the analysis, design, and detailing of high-rise and tall building structures, following a structured, project-driven curriculum aligned with IS, ASCE, and BS/Eurocode provisions. Learners progress from foundational modelling concepts through advanced seismic, wind, and stability analysis, culminating in dedicated research and development work on real tall-building case studies.

Curriculum at a Glance

- ▶ Module 01 — Understanding Project Detailed Analysis (CSI ETABS)
- ▶ Module 02 — Foundation and Slab Analysis and Design (CSI SAFE + All Pile)
- ▶ Module 03 — Advance Structure Analysis (CSI ETABS)
- ▶ Module 04 — Designing of Structural Member (CSI ETABS + Manual)
- ▶ Research & Development in Building Structure (CSI ETABS + CSI SAFE + CSI PER3D + Dlubal RWIND)

Software & Tools Covered

CSI ETABS • CSI SAFE • CSI Detailer • All Pile • CSI PER3D • Dlubal RWIND • MS Excel

Design Codes & References

IS 456 • IS 875 • IS 1893 • IS 800 • IS 13920 | ASCE | BS / Eurocode

Live Projects Include

B+G+9 Building (Gurugram) • 2B+G+13 Commercial Building (Surat) • 4B+G+29 Commercial Tower (Nagpur) • G+43 Complex Tower (Bangalore) • 4B+G+52 Multi-Tower Apartment (Hyderabad) • Diagrid Structure Study • G+45 Outrigger System • G+80 to G+120 Tube System • G+84 Twin Tower

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Module 01 — Understanding Project Detailed Analysis (IS + ASCE + BS)

CSI ETABS | Expected hr. 35–40 hrs

Sr. No	Topic	Class Type
01	Intro Session	Regular Class
02	Project Types & Codes Provisions	Regular Class
03	Structural Framing Design Concepts	Regular Class
04	ETABS Modelling Techniques	Regular Class
05	Framing Plan	Regular Class
06	Material and Section Property	Regular Class
07	AEC Collection Database in Building	Regular Class
08	Model Shared Collaboration	Regular Class
09	B+G+9 Building HIPPA Structure @Gurugram 2B+G+13 Commercial Building @Surat	Project 01 Project 02
10	4B+G+29 Commercial Tower West-19 Skyline @Nagpur	Project 03
11	G+43 Complex Tower @Bangalore 4B+G+52 Multi-Tower Apartment @Hyderabad	Project 04 Project 05
12	Model Check & Restraints	Regular Class
13	Model Analysis	Regular Class
14	Cracked Section and Shell Concepts	Regular Class
15	Loading Concepts as per Code Provisions	Regular Class
16	Gravity Loadings Calculations	Regular Class
17	LMR and Seismic Loadings	Regular Class
18	Live Load Reduction Factor & Assign to Release	Regular Class
19	Meshing Pier & Spandrel Labels	Regular Class
20	Interpreting Analysis Results	Regular Class
21	Lateral Stability Systems	Regular Class
22	Stability Systems Interpreting Results	Regular Class
23	Podium & Backstay Effects	Regular Class
24	Sensitivity Analysis due to Backstay Effects	Regular Class
25	Linear Dynamic Analysis	Regular Class

Module 02 — Foundation and Slab Analysis and Design (IS + ASCE + BS)

CSI SAFE + All Pile + MS Excel | Expected hr. 20-25 hrs

Sr. No	Topic	Class Type
26	Foundation System	Regular Class
27	Export Reaction to CSI SAFE	Regular Class
28	Interpreting Result	Regular Class
29	Raft Foundation	Regular Class
30	Raft Foundation	Regular Class
31	Raft + Pile Foundation	Regular Class
32	All Pile Software	Regular Class
33	Slab Design	Regular Class
34	Slab Design	Regular Class

Module 03 — Advance Structure Analysis

CSI ETABS | Expected hr. 25-30 hrs

Sr. No	Topic	Class Type
35	Response Spectrum	Regular Class
36	Discontinuity & Irregularity Systems	Regular Class
37	Plan & Vertical Irregularity	Regular Class
38	Development of Interior & Exterior Structural Systems	Regular Class
39	Pounding Effect & Expansion Joint	Regular Class
40	Wind Analysis	Regular Class
41	P-Delta Analysis (Geometric Nonlinearity)	Regular Class
42	Creep & Shrinkage Analysis	Regular Class
43	Auto Construction Analysis	Regular Class
44	Buckling Analysis	Regular Class
45	Stability Systems Dual System Checks	Regular Class

Module 04 — Designing of Structural Member

CSI ETABS + Manual | Expected hr. 20-25 hrs

Sr. No	Topic	Class Type
46	Member Design	Regular Class

47	Shear Wall & Core Wall Design	Regular Class
48	Boundary Elements & Report Generation	Regular Class
49	CSI Detailer	Regular Class

Research & Development — Research and Development in Building Structure

CSI ETABS + CSI SAFE + CSI PER3D + Dlubal RWIND | Expected hr. 40–50 hrs

Sr. No	Topic	Class Type
50	Introduction and Roadmap of Workshop / Interaction / Project Explanation	Project Report
51	Full Structure Concept / Code / Software Revision with One Project (G+3B+47)	Project Report
52	Seismic Analysis and Design (RSM)	Regular Class
53	Pushover Analysis	Regular Class
54	Seismic Analysis and Design (THM): 01	Regular Class
56	Performance Based Design	Regular Class
58	Wind Analysis and Simulation	Regular Class
60	Comparative Study of Conventional Structure and Diagrid Structure	Project 06
61	Base Isolation System in Building	Regular Class
62	Outrigger System (G+45 Building Structure)	Project 07
63	Tube System (G+80 to G+120)	Project 08
63	Warl's Tower (G+84 Twin Tower)	Project 09
65	Tube System (G+80 Trade Tower)	Regular Class
66	Project Report Generation and GAD	Regular Class



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WHY LEARN WITH STRUCTUREX

1000+
Professionals Trained

100%
Career Support

40%
International Learners

5★
Google Rating

What You Get

- ▶ Industry-aligned curriculum built with IS, ASCE, and BS/Eurocode code provisions
- ▶ 9+ live, real-world building & tower projects across international cities
- ▶ Hands-on training on CSI ETABS, CSI SAFE, CSI Detailer, All Pile, CSI PER3D & Dlubal RWIND
- ▶ Expert faculty support with lifetime access to recorded sessions
- ▶ Certification recognized with StructureX, MSME & ISO partnerships

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