PG PROGRAM IN STRUCTURE DESIGN& ANALYSIS.

(ETABS+SAFE+RCDC+CAD+REVIT)

Project-Based Immersive Learning to Help You Land a Job Or open your own Structural consultancy

Become a Skilled Structural Engineer

Designed to get you hired as an in-demand Structural Design Engineer with live training, self-paced learning content, plenty of hands-on Workshop and much more. Build a Structural project portfolio to impress recruiters at companies and launch your career as a Skilled Structural Engineer.

Course Highlights

- ✓ 160+ Hours Live Instructor-Led Sessions
- ✓ Exclusive Training by Industry Instructors
- ✓ Focus on Job-Readiness Right Through Program
- ✓ Cloud Labs-Enabled Learning Content
- ✓ Practical Experience Through Real-World Projects
- ✓ Structured, Industry-Validated Curriculum Mock
- ✓ Interviews and Much More!

Master In-Demand Tools and Technologies

ETABS®

AUTOCAD

AUTODESK® REVIT® Structures

By the End of This Course, You'll Be Able To:

- ✓ Master the basics & Advance of Structural Designing.
- ✓ Build a Live Projects for Designing.
- ✓ Understanding and Design the Structure with Earthquake Forces.
- ✓ You can design the Structure up to G+15.
- ✓ Design the Foundation System.
- ✓ Design & Detail the Structure.
- ✓ Open your Own Structural Consultancy.
- ✓ Crack any job interviews for the post of Structural Engineering.

Ride the Wave of High Demand for STRUCTURAL ENGINEER

Top 2
Civil Eng. Role
indeed

Top 2
Civil Eng. Role
TechRepublic.

Career Impact

US$ $1,20,000
Average Annual Base Salary (2022)

15%
Structure Design Salary Growth, Annual (2020 - 2025)

161%
Structure Design Engineer Job Listings Growth, Annual (2016 - 2019)

Source: Indeed, Bureau of Labour Statistics

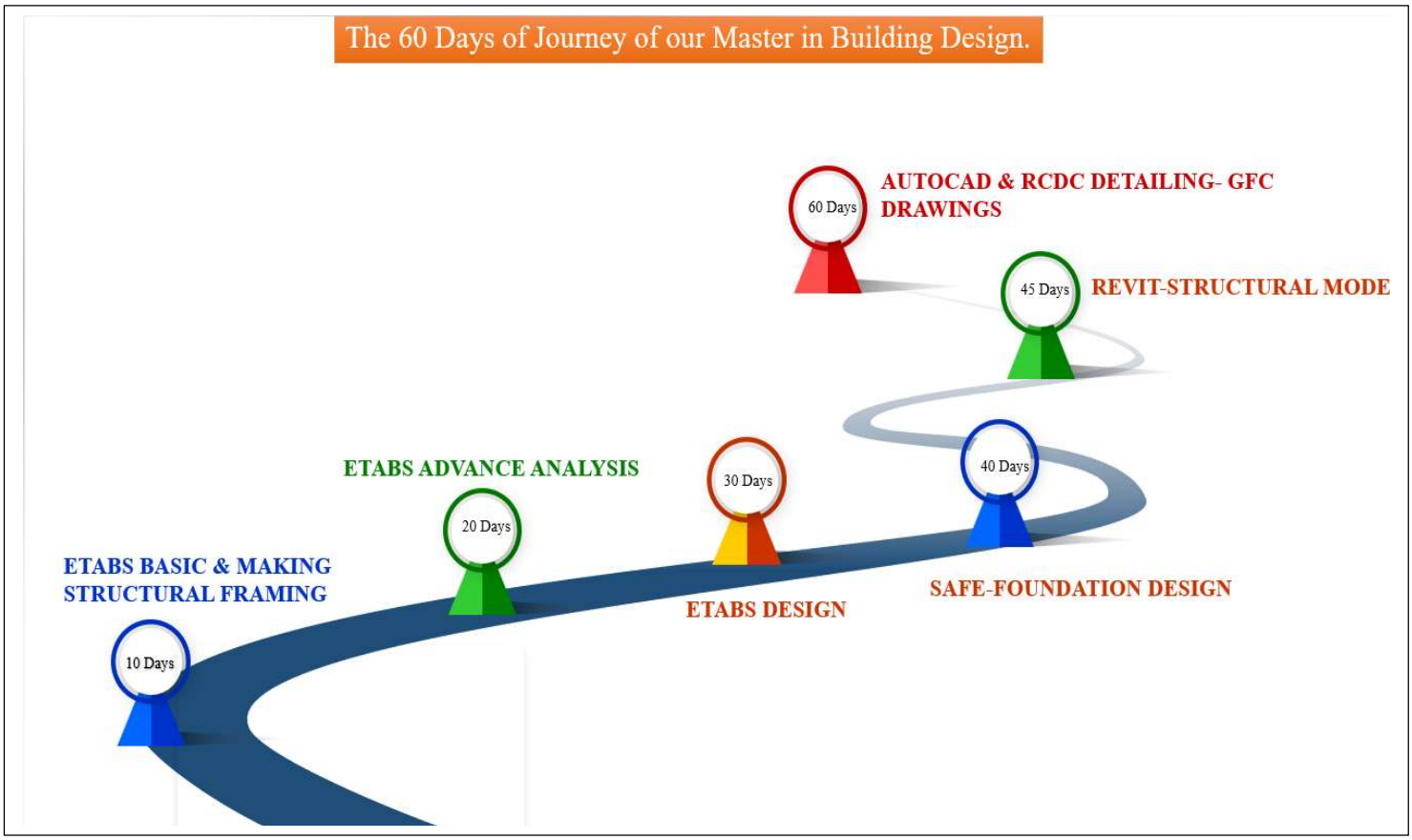
More than half
of all jobs in the top income quartile show significant demand for Structure Engineer.

Course Structure

Course Design

Gear up with essential skills

- Duration: 2 Month Comprehensive
- Learning VideosWeekly Instructor-
- Led Sessions
- Optional Problem-Solving SessionsWeekly
- Assessments



After Completion of Course

Build real-world capstone projects from concept to completion

- 10+ Guided capstone projects
- 20+ Capstone project outlines to work with
- Live review and feedback from mentor
- Deploy your Own Projects

Graduation

Get ready to add
"Structure Design Engineer" to your resume!

A Typical Week in Our Course

This Course sets you up for success by combining a power-packed curriculum with a solid weekly rigour and support available right through.

Weekly Rigour

Watch
comprehensive self-paced videos for 2x learning

Attend
live instructor-led and 1-1 on-demand mentorship sessions

Build
projects and complete assignments

Practice
Practice Live Projects

Monitor
your skills progression with real-time reports

Test
your conceptual recall with quizzes

Assess
your skills with timed auto-graded weekly assessments

Participate
in mid-week problem-solving live sessions

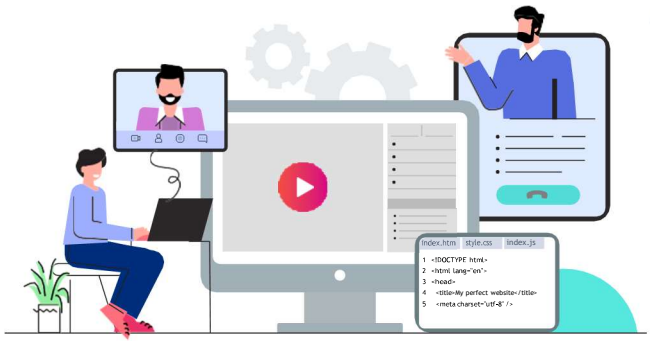
Get Support
from teaching assistants, mentors, learning advisors

Power-Packed Learning

- Project Learning
- Preparation for Interviews
- Mock Interviews and Tests
- Soft-Skills Training
- Placement Drives
- and more...

The SPANSTRUCT Advantage

The most effective project-based immersive learning experience

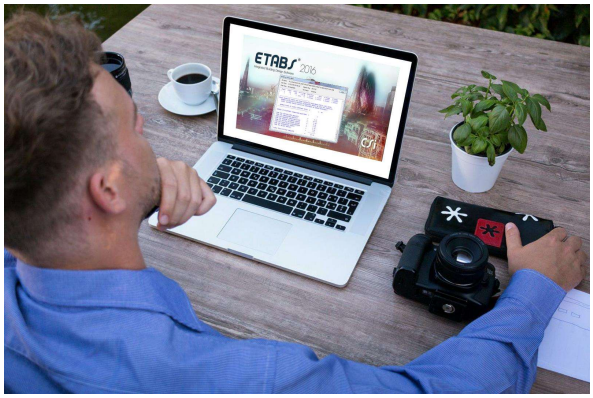


Immersive Learning

- Pre-Recorded learning videos.
- Guided hands-on exercises.
- Live Class.
- Auto-graded assessments, recall quizzes.
- Structure Projects.

Learn by Doing

- Learn to design the Structure by Own
- Practice different Structure by own
- 10+ Project to practice



Build a Stellar Project Portfolio

By the time you graduate from our Structure Design Course , you'll have a solid job-worthy portfolio of Projects to impress top recruiters and land the job you want. Here's a peek at some of the projects you'll be able to build:

BUILDING DESCRIPTION

- 12 Story- Hotel building.
- 2 Car Basement.
- Dual Structural System (Rcc Structure)

ANALYSIS PERFORMED

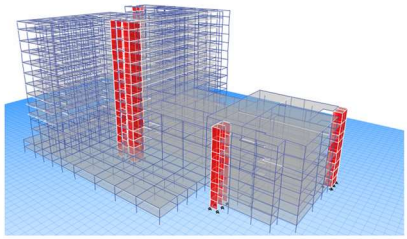
- FEM.
- Modal Analysis.
- Static Earthquake Analysis
- Auto Stage Construction Analysis
- P-Delta
- Buckling Analysis
- Torsion Irregularities
- Response Spectrum Analysis

DESIGN METHOD FOR SESMIC DESIGN

- Performance Based Design
- Lateral Strength Based Design

FOUNDATION SYSTEM

- RAFT+PILE



12 STORY HOTEL PROJECT

BUILDING DESCRIPTION

- 25 Story- residential building.
- RCC Structural System (Rcc Structure)

ANALYSIS PERFORMED

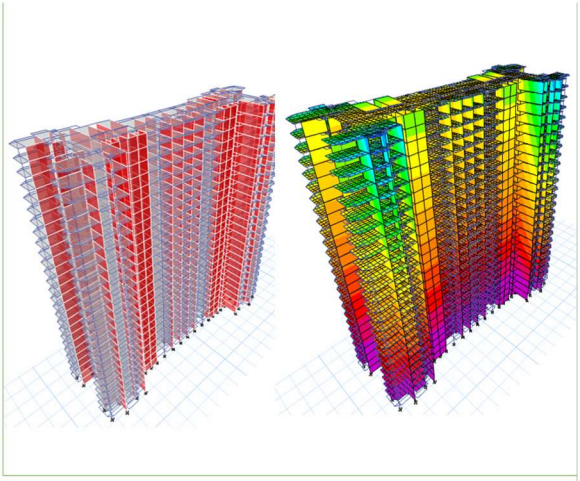
- FEM.
- Modal Analysis.
- Static Earthquake Analysis
- Auto Stage Construction Analysis
- P-Delta
- Buckling Analysis
- Torsion Irregularities
- Response Spectrum Analysis

DESIGN METHOD FOR SESMIC DESIGN

- Performance Based Design
- Lateral Strength Based Design

FOUNDATION SYSTEM

- RAFT+PILE



25 STORY RESIDENTIAL PROJECT

BUILDING DESCRIPTION

- Multi Tower 25 Story- residential building.
- RCC Structural System (Rcc Structure)

ANALYSIS PERFORMED

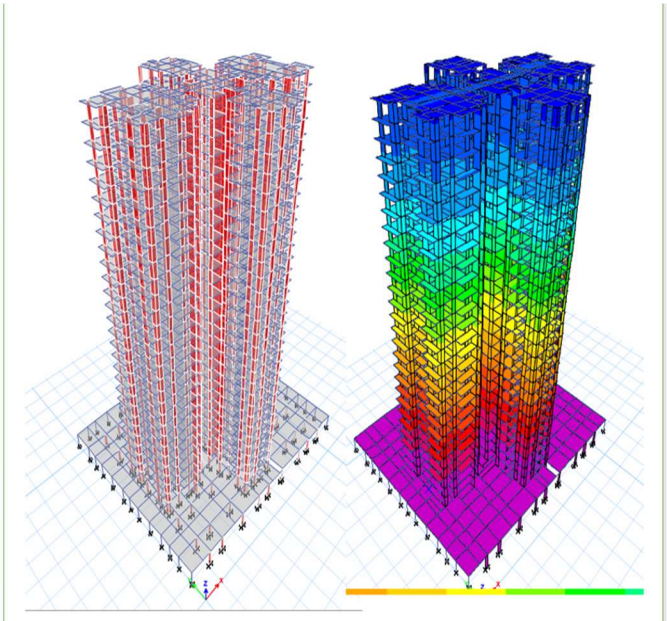
- FEM.
- Modal Analysis.
- Static Earthquake Analysis
- Auto Stage Construction Analysis
- P-Delta
- Buckling Analysis
- Torsion Irregularities
- Response Spectrum Analysis

DESIGN METHOD FOR SESMIC DESIGN

- Lateral Strength Based Design

FOUNDATION SYSTEM

- RAFT+PILE



MULTI TOWER 25 STORY RESIDENTIAL PROJECT

Training Options

The Course is offered in full-time and on-demand self-paced formats. Within weeks, we'll turn youinto a self-sufficient, versatile developer with all the critical skills for a long and healthy career in Structure Design

Blended Learning

Instructor-Led Live Sessions and On-Demand Learning

- 8-Week Program
- Immersive Learning
- On-Demand Mentorship

Self-Paced Learning

Learn at Your Own Pace

- Learn from Anywhere
- Practice on your Speed
- Optional 1-on-1 Mentor Support

Dedicated Career Services

Along with preparing you for the job, we also help you prepare for your searchand your interviews at product-based companies:

- **Interview Preparation with 5 Mock Interviews**
- **Mentorship by Industry Experts**
- **Resume, LinkedIn, Profile Reviews**
- **Personalized Career Planning and Coaching**
- **Placement Support by Dedicated Team**

Get Ready to Nail That STRUCTURAL DESIGN ENGINEER Job

302%	40-70%	100+
Highest Salary Hike	Average Salary Hike	Hiring Partners

Our Alumni Work at Reputed Companies

and more.

Who Should Attend This COURSE ?

If you're looking to establish and fast-track your career in Structure Design, this beginner-friendlyprogram is for you. Anyone can take the course including:

- B.TECH OR B.E IN CIVIL ENGINEERING
- M.TECH OR M.E IN CIVIL ENGINEERING

Course Curriculum

Module 1: .CAD WORK

CAD WORK	• How To Make Structural Framing Plan & Beam Center Line For Importing In ETABS.

Module 2: MAKING THE MATHEMATICAL MODEL IN ETABS

Making the Mathematical Model in ETABS	• Importing .Dxf file in ETABS for making the mathematical model in ETABS. • Defining The Material Grade For Beams, Columns, Slab & Shear Wall. • Defining the Section properties for Beam, Column & Slab. • Drawing Columns In Plan View. • Drawing Slab in Plan Views. • Creating The Story System. • Creating The Shear Wall In The Model

Module 3: CHECKING WARNING IN ETABS MODEL

Checking Warning in ETABS	• Finding Warning In The Model

Module 4: SUPPORT SYSTEM IN ETABS

Support System in ETABS	• **Different Types Of Support System**

Module 5: FIRST RUN CHECKS (Without Loading)

First Run Checks(Without Loading	• **Doing 1st run in ETABS model-(1st Part)**

Module 6: GRAVITY LOADING FOR BEAMS & SLAB

Learn to build sophisticated RESTful APIs. Integrate software testing in your development workflow to build error free, resilient and performant full stack applications.

Gravity Loading for BEAMS & Slab	• **Types of loading applied in Building** • **Calculating & Applying the wall load.** • **Calculating & applying the floor load** • **Calculating & applying the Over Head Tank(OHT) load** • **Calculating & Applying the Lift load.**

Module 7: VERTICAL SERVICE DEFLECTION CHECKS

Vertical Service Deflection Checks	• **Checking The Deflection In The Slab** • **Performing The Creep Analysis**

Module 8: Moment Release in ETABS

Moment Release in ETABS	• Understanding the Concept of the Moment Releases • Doing the Moment Release in our ETABS Model

Module 9: MODAL ANALYSIS

Modal Analysis	• Understanding the Core Concept of the Modal Analysis • Practical Application of the Modal Analysis • Understanding the Modal Analysis Clauses & Making the Mode Translational • Practically Applying the Codal Provision clauses in our Project • Number of Modes to be Considered in Modal Analysis

Module 10: .EARTHQUAKE DESIGN FOR STATIC ANALYSIS

Earthquake Design for Static Analysis	Understanding the Base Shear Calculation, Zone, Importance, R Factor in Earthquake Code • Calculation of Sa/g & Time Period of the Building • Applying Earthquake Force in ETABS Model • Practically Applying the Codal Provision clauses in our Project • Understanding the Result of the Earthquake Force

Module 11: . FLOOR DIAPHRAGMS

Floor Diaphragms	**Learning The Diaphragms Concept & Different types of Diaphragms** **Practical Application of Rigid Diaphragms in ETABS** **Practical Application of Semi-Rigid Diaphragms in ETABS**

Module 12: . DESIGN ECCENTRICITY

Design Eccentricity	**Understanding the Design Eccentricity as per Code Requirement** **Practically Design the Building with Design Eccentricity**

Module 13: . STIFNESS MODIFICATION FACTOR (SMF)

Stiffness Modification Factor	• **Understanding the Stiffness Modification Factor (SMF)** • **Making the Service Model as per Code requirement**

Module 14: . LATERAL DEFLECTION CHECKS IN EARTHQUAKE STATIC ANALYSIS

Lateral Deflection Checks in Earthquake Static Analysis	• **Lateral deflection Service Model Checks as per Code requirement in Static Load Case**

Module 15: . DYANMIC ANALYSIS FOR EARTHQUAKE DESIGN

Dynamic Analysis for Earthquake Design	• **Applying the Dynamic Forces in our Building** • **Balancing the Dynamic Forces as per code Requirement** • **Lateral deflection Service Model Checks as per Code requirement in Dynamic**

Module 16: . TORSION IRREGULARTIES CHECKS

Torsion Irregularties Checks	• **Understanding the Torsion Irregularities Checks in our Building as per code requirement.** • **Practically Checking the Torsion Irregularity in ETABS model of our Building.**

Module 17: . SOFT STOREY CHECKS

Soft Storey Checks	• **Understanding the Soft Story Checks as per Code requirement.** • **Practically applying the Soft Story Checks in ETABS Model of our Building.**

Module 18: . VERTICAL EARTHQUAKE ANALYSIS

Vertical Earthquake Analysis	• **Importance of the Vertical Earthquake.** • **INSTRUCTION VIDEO -Vertical Earthquake .** • **Practically applying the Vertical Earthquake in our ETABS Model.**

Module 19: . P DELTA ANALYSIS

P.Delta Analysis	• **Importance of the Vertical Earthquake.** • **INSTRUCTION VIDEO -Vertical Earthquake .** • **Practically applying the Vertical Earthquake in our ETABS Model.**

Module 20: . DUAL STRUCTURAL SYSTEM

Dual Structural System	• **Checking the Building for the Dual System as per code requirement** • **Different condition for the Building to be become as a Dual System**

Module 21: . CRACED SECTION ANALYSIS

Cracked Section Analysis	• **Making the Strength Model or Cracked Section as per Code requirement** • **Practically applying the Cracked Section properties in ETABS Model as per Code** • **Applying the Cracked Section properties as per ACI-318**

Module 22: . DESIGN IN ETABS

Design in ETABS	• **Column Design** • **Beam Design** • **Slab Design** • **ShearWall Design**

Module 23: . SAFE SOFTWARE -FOUNDATION DESIGN

Safe Software-Foundation Design	• Column grouping for Foundation Design • Finding footing dimensions • Importing & exporting SAFE .f2k files • Defining the Footing Material Grade & Section Properties • Modeling Footing Dimension in SAFE software • Defining the Soil Subgrade Modulus Properties • Checking the Soil Pressure for Given footing Dimensions -(Part-1) • Checking the punching shear in Column Footings • Checking the Soil Pressure for Given footing Dimensions -(Part-2) • Checking the punching shear in Shear Wall Footings • Reinforcement Design for Column footings • Reinforcement Design for Shear Wall Footings •

Module 24: . RCDC

RCDC	• Column Detailing • Beam Detailing • Slab Detailing • ShearWall Detailing

Module 25: . REVIT STRUCTURE

REVIT STRUCTURE	• Structural Modelling

SpanStruct is a Indian company, equipping the world's workforce with the skills of thefuture via immersive learning. A trusted skills transformation partner to over 4,500+ organizations across 100+ countries, SpanStruct is the skills solutions provider that organizations and individuals count on to innovate faster and create progress.

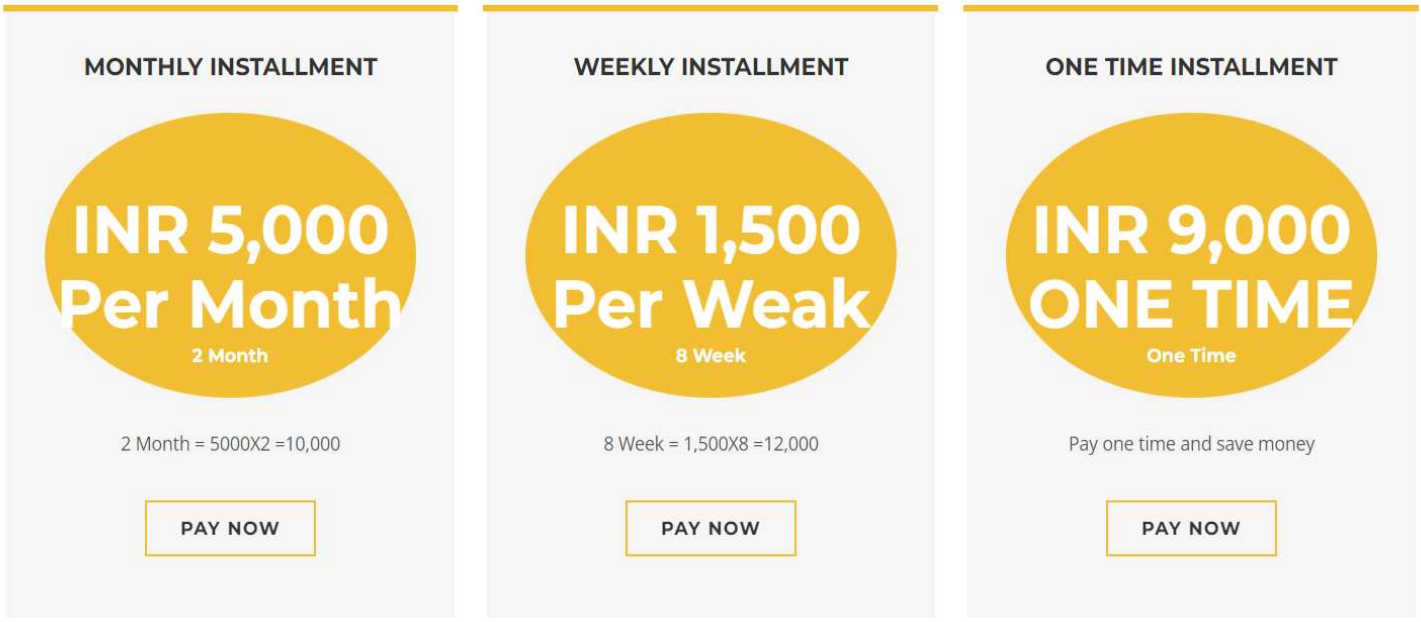
3,500+
Professionals Trained

50+
Workshops Every Month

10+
Countries and Counting

India
+91-9113460003,
+91 7012334063

Different Payments Option Available for this Course



Ready to skill up?

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