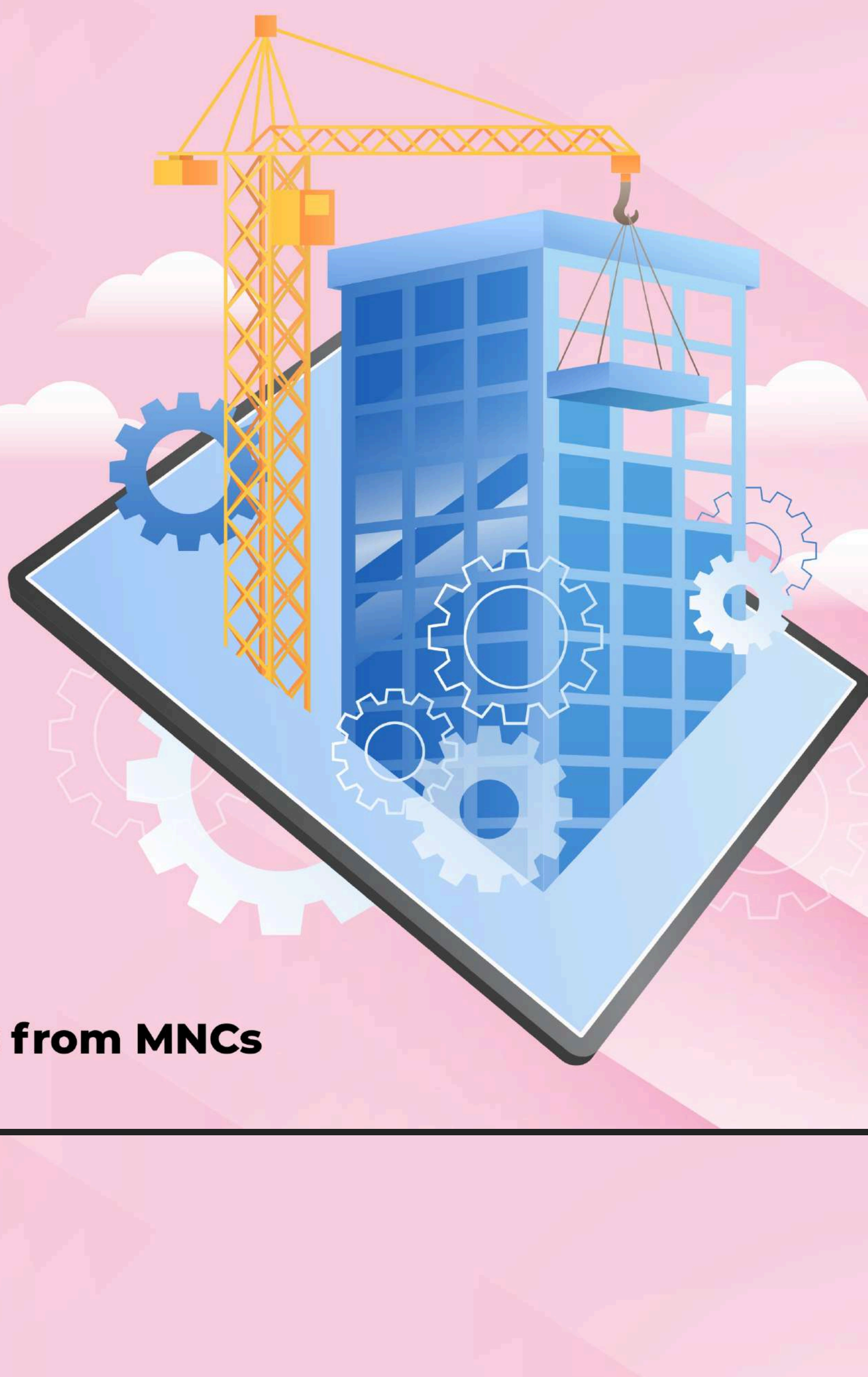


Empower Excel Elevate

10 Weeks Program in
STRUCTURAL ANALYSIS
Integrated with **Top experts from MNCs**



ABOUT COMPANY

An Idea of learning and upskilling every single day for the hope of a better tomorrow.

LearnFlu is nothing but an Idea. An Idea of learning and upskilling every single day for the hope of a better tomorrow. LearnFlu is also a disease, which every being alive wishes to have. A disease of learning something new and interesting for the growth they desire



WE OFFER

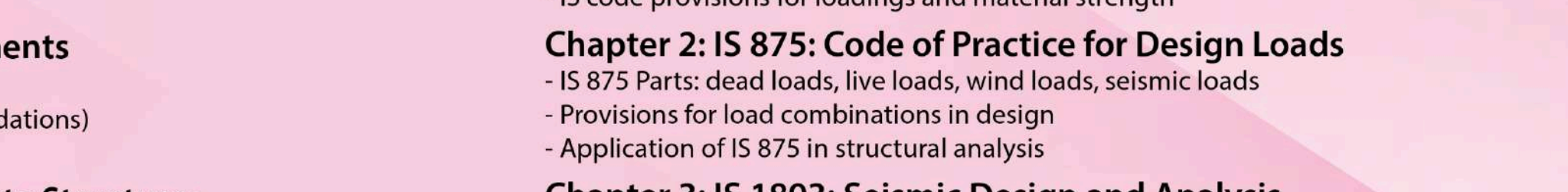


PROGRAM HIGHLIGHTS

WHY THIS PROGRAM IS YOUR BEST CHOICE

- 01 LIVE INTERACTIVE SESSIONS WITH INDUSTRY EXPERTS
- 02 MENTOR-DRIVEN SPRINT-BASED REAL-WORLD TEAM PROJECTS
- 03 LIVE MENTORSHIP
- 04 PERSONALISED MENTORSHIP AND CAREER GUIDANCE
- 05 CAREER ASSISTANCE
- 06 DOUBLE CERTIFICATION & CREDIT REPORT
- 07 PLACEMENT ASSISTANCE

COURSE CURRICULUM



Structural Analysis Curriculum provides a comprehensive understanding of structural analysis, load combinations, IS code provisions, and the use of ETABS for analysis and design. Students will gain hands-on experience with structural modelling, assigning properties, analysing results, and interpreting design data to ensure safe and efficient structural systems.

Module 1: Fundamentals of Structural Analysis

Chapter 1: Introduction to Structural Analysis

- Overview of structural analysis
- Types of structures: determinate and indeterminate structures
- Basic concepts of forces, moments, and equilibrium

Chapter 2: Structural Systems and Components

- Types of structural systems (frames, trusses, arches)
- Components of structures (beams, columns, slabs, foundations)
- Structural behaviour and load transfer mechanisms

Chapter 3: Analysis Methods and Determinate Structures

- Analytical methods: force method and displacement method
- Analysis of beams, trusses, and frames
- Influence lines for determinate structures

Module 2: Load Types and Combinations in Structural Analysis

Chapter 1: Types of Loads in Structures

- Dead loads, live loads, wind loads, seismic loads
- Other loads: snow, temperature, and impact loads
- Introduction to load cases in structural design

Chapter 2: Load Combinations in Structural Analysis

- Definition and importance of load combinations
- Combining different loads as per design requirements
- IS code provisions for load combinations in structural analysis (IS 875)

Chapter 3: Introduction to Limit State Design

- Concept of limit state design
- Limit states of strength and serviceability
- Partial safety factors for loads and materials

Module 3: IS Code Provisions for Structural Analysis

Chapter 1: IS 456: Design of Reinforced Concrete

- Overview of IS 456:2000
- Design philosophies: working stress, limit state
- IS code provisions for loadings and material strength

Chapter 2: IS 875: Code of Practice for Design Loads

- IS 875 Parts: dead loads, live loads, wind loads, seismic loads
- Provisions for load combinations in design
- Application of IS 875 in structural analysis

Chapter 3: IS 1893: Seismic Design and Analysis

- Seismic analysis provisions in IS 1893
- Seismic zones in India and their impact on design
- Dynamic analysis and seismic load considerations

Module 4: Introduction to ETABS and Structural Modeling

Chapter 1: Introduction to ETABS Software

- Overview of ETABS for structural analysis and design
- Interface and tools available in ETABS
- Benefits of using ETABS for structural analysis

Chapter 2: Creating Structural Models in ETABS

- Steps to model structures in ETABS
- Defining grids and levels for 3D modelling
- Introduction to creating structural elements (beams, columns, slabs)

Chapter 3: Assigning Loads in ETABS

- Assigning different types of loads in ETABS (dead, live, wind, seismic)
- Load cases and load combinations in ETABS
- Application of IS codes for load definition

Module 5: Creation of Nodes and Assigning Structural Properties

Chapter 1: Introduction to Nodes and Elements in Structural Analysis

- Role of nodes in structural modelling
- Creating nodes and connecting structural elements
- Defining boundary conditions and support types (fixed, pinned, roller)

Chapter 2: Assigning Material Properties in ETABS

- Defining material properties (concrete, steel)
- Assigning section properties (beam, column, slab dimensions)
- Modifying and customising properties in ETABS

Chapter 3: Defining Structural Properties for Elements

- Assigning stiffness, strengths, and cross-sectional properties
- Setting up frame, shell, and membrane elements
- Adjusting structural properties for accurate analysis

Module 7: Interpretation of Results and Design Considerations

Chapter 1: Evaluating Structural Safety and Serviceability

- Assessing structural safety based on analysis results
- Checking serviceability limits for deflection and vibration
- IS code provisions for safety and serviceability checks

Chapter 2: Design of Structural Elements Based on Analysis

- Designing beams, columns, slabs, and foundations using analysis data
- Cross-checking member sizes and reinforcement
- Design optimization based on ETABS results

Chapter 3: Addressing Structural Failures and Modifications

- Identifying potential structural failures from analysis
- Revising the design based on failure modes (shear, bending, deflection)
- Modifying and rerunning the analysis to meet design requirements

Module 6: Structural Analysis Techniques in ETABS

Chapter 1: Analysis Types in ETABS

- Linear static analysis vs. nonlinear dynamic analysis
- Introduction to modal analysis and response spectrum analysis
- Load combination analysis for multiple scenarios

Chapter 2: Running Structural Analysis in ETABS

- Steps to perform structural analysis in ETABS
- Analyzing forces, moments, and deformations
- Handling convergence issues and refining the model

Chapter 3: Understanding Analysis Results

- Interpreting deflections, bending moments, shear forces
- Reviewing load distribution across structural members
- Identifying critical elements and areas of concern

Module 8: Advanced Topics and Capstone Project

Chapter 1: Advanced Structural Modeling in ETABS

- Advanced modelling techniques for complex structures
- Dynamic and nonlinear analysis in ETABS
- Analysis of high-rise buildings and special structures

Chapter 2: Quality Control and Assurance in Structural Analysis

- Ensuring quality and accuracy in analysis and design
- Review processes for structural models and results
- Importance of peer review and third-party checks

Chapter 3: Capstone Project: Structural Analysis of a Building

- Practical project: analysing a multi-story building
- Defining loads, creating the model, and running the analysis
- Interpreting results, designing members, and presenting the project

2Weeks Major Projects

Jobs You Can Apply

- ◆ Structural Engineer, ₹4-10 LPA
- ◆ Design Engineer (Structures), ₹4-9 LPA
- ◆ Bridge Engineer, ₹5-12 LPA
- ◆ Structural Consultant, ₹8-20+ LPA
- ◆ Finite Element Analyst (FEA), ₹5-10 LPA
- ◆ High-Rise Design Engineer, ₹6-15 LPA.

Projects

- ◆ Anji Khad Bridge, Jammu & Kashmir
- ◆ Kacchi Dargah-Bidupur Bridge, Bihar
- ◆ Second Ishwar Gupta Setu, West Bengal

TOOL BOX



MEET YOUR MENTOR



Pooja G D
Company : Nest Designer
Experience : 5+ years

Pooja is a seasoned mentor with over 5 years of dedicated experience in Nest Designers and a noteworthy presence in more than 2 companies. Specializing in autocad, she has successfully contributed to the completion of 20+ projects, showcasing exceptional leadership skills with an individual accomplishment of overseeing more than 2 projects independently. Beyond technical expertise, Pooja is known for his strong leadership qualities. He extends his impact by training employees across different companies, showcasing a commitment to knowledge sharing and talent development within the construction planning field. Pooja stands out as a mentor who combines hands-on experience with effective leadership, making him a valuable asset in the industry.

PLACEMENT SERVICES

REACH YOUR DREAM JOB :
AT LEARNFLU, YOU'RE DEEPLY COMMITTED TO YOUR LEARNING JOURNEY AND DEDICATED TO YOUR CAREER SUCCESS. OUR COMPRE- HENSIVE PLACEMENT SERVICES ARE TAILORED TO EQUIP YOU WITH THE SKILLS, CONFIDENCE, AND CONNECTIONS NECESSARY TO SECURE YOUR DREAM TECH JOB

RESUME PREPARATION :
CRAFT A STANDOUT RESUME WITH EXPERT GUIDANCE TO EFFECTIVELY HIGHLIGHT YOUR SKILLS AND EXPERIENCE, ENSURING YOU CATCH THE ATTENTION OF RECRUITERS.

SOFT SKILL PREPARATION :
ELEVATE YOUR COMMUNICATION, TEAMWORK, AND LEADERSHIP ABILITIES WITH ENGAGING LIVE SESSIONS AND CUSTOMIZED FEEDBACK, DESIGNED TO HELP YOU EXCEL IN ANY PROFESSIONAL SETTING.

HIRING PARTNERS WITH CAREER PORTAL :
GAIN ACCESS TO LEADING TECH COMPANIES THROUGH OUR EXTENSIVE NETWORK OF HIRING PARTNERS AND OUR EXCLUSIVE CAREER PORTAL, DESIGNED TO CONNECT YOU WITH YOUR IDEAL JOB OPPORTUNITIES...

MENTORSHIP
GAIN HANDS-ON EXPERIENCE THROUGH INTERNSHIPS AND MENTORED PROJECTS, EARNING AN INDUSTRY CERTIFICATE

ADDITIONAL SERVICES

Linkedin optimization
Optimizing your LinkedIn profile can greatly enhance your professional online presence and increase your

Career Guidance
Career guidance plays a vital role in helping individuals navigate the complex and often challenging world of work.

Career Opportunities
Career opportunities are essential as they provide pathways for personal and professional growth, financial stability, and the fulfillment of individual potential and aspirations.

Hands-on experience
The importance of hands-on experience, especially in the context of professional development and education, is very substantial to land your first job.

Personality Development
Personality development is crucial as it enhances overall personal growth, fosters confidence, and improves interpersonal skills, leading to success in both personal and professional life.



CREDIT VALIDATION REPORT



COURSE COMPLETION CERTIFICATE



INTERNSHIP COMPLETION CERTIFICATE



STUDENTS REVIEWS

- Pravanshu** ★★★★★
Very good internship program. My mentors are teaching me more technical stuff. I also recommend my friends to do this internship.
- Vasavi** ★★★★★
This is the best internship provider with major projects with best experienced mentors.
- Sarvani** ★★★★★
This is the best internship and training provider company with 100% job assistance
- Raghu Roy** ★★★★★
This is the best internship provider with major projects with best experienced mentors.
- Aradhana** ★★★★★
Learnflu seamlessly merges education and technology, offering a dynamic platform for immersive learning experiences. With innovative tools and engaging content, Learnflu elevates the educational landscape.

- Kashish Yadav** ★★★★★
Very good internship program. My mentors are teaching me more technical stuff. I also recommend my friends to do this internship.
- Dinakaran** ★★★★★
Thank you so much learnflu for giving this wonderful opportunity and developed my knowledge.
- Aju Koshan** ★★★★★
I enrolled for web Data Analysis Program for April batch and yesterday was my induction session and session was so good and the mentor Syed Ateem have given very insightful information about this internship and Training Programme and I am very much excited regarding the program
- Priya** ★★★★★
This is a very good learning platform which offers students training and internship programs

OUR ALUMNI WORKS AT



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Website: www.learnflu.com

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