The Complete STAAD.Pro Training: Mastering Structural Analysis

2027 □□□□□ 8 – 4
Online



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Ref: 20220722_280510 Duration: Online Fees: 2700 GBP

Course Description

This intensive 1-week course provides a comprehensive introduction to STAAD.Pro, covering all aspects of structural analysis and design. Participants will learn to model, analyze, and optimize various structures using industry-standard techniques. The course combines theoretical knowledge with hands-on practice, ensuring participants can confidently apply STAAD.Pro in real-world engineering projects.

Learning Objectives

- Master STAAD.Pro's interface and core functionalities
- Develop proficiency in 3D structural modeling and analysis
- Learn to apply various loading conditions and perform dynamic analysis
- Gain expertise in designing and optimizing steel and concrete structures
- Understand advanced features for complex structural systems

Course Modules

Day 1: Introduction to STAAD.Pro and Structural Modeling

- STAAD.Pro interface and workflow
- Basic structural modeling techniques
- Geometry creation and manipulation
- Material and section property assignment

Day 2: Loading and Analysis Fundamentals

- Static load case definition and application
- Load combinations and code-based load generation
- Linear static analysis
- Result interpretation and visualization

Day 3: Advanced Analysis Techniques

- Dynamic analysis methods
- Seismic and wind load analysis
- P-Delta and geometric nonlinearity
- Finite element modeling for plates and shells



Day 4: Steel and Concrete Design

- Steel member design and optimization
- Concrete beam, column, and slab design
- Foundation modeling and analysis
- Code-based design checks and reports

Day 5: Advanced Topics and Project Application

- Advanced modeling techniques for complex structures
- Integration with other software CAD, BIM
- Tips for model optimization and troubleshooting
- Hands-on project: Complete structural analysis and design

Practical Wins for Participants

- Ability to independently model and analyze complex structures
- Proficiency in generating comprehensive design reports
- Skills to optimize designs for efficiency and cost-effectiveness
- Confidence in applying STAAD.Pro to real-world engineering projects

