

## STAAD.Pro Advanced Syllabus

The duration required to complete this syllabus will take **two or three days** depending on the level of the students/trainees.

### Prerequisites

To get the most out of STAAD training, trainees/students should have solid understanding in the following subjects.

- Understanding on modeling and analysis using STAAD Pro.
- Structural Dynamics.
- Steel Design.
- Concrete Design.

### Objective(s)

- To drill down capabilities of STAAD.Pro
- To do FEA in STAAD.Pro

### Details

- Zero stiffness problem
- Instabilities problem
- Modeling and analysis of finite element model
- Performing cable analysis
  - background theory
  - pre-tension in cable
  - cable sag analysis
  - convergence of the result
- Performing earthquake analysis
  - background theory
  - seismic loading UBC/IBC
  - interpreting the result
- Performing p-delta analysis
  - background theory
  - K and Kg
  - load combination versus repeat load
  - modeling and run analysis
- Performing dynamic analysis
  - background theory
  - time history for machine vibration
  - time history for ground motion
  - natural frequency and response spectrum
  - Rayleigh method

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Note: This training program is prepared according to established engineering principles and guidelines. While believed to be accurate, the information or the knowledge gained through this program should never be utilized for any specific engineering application without professional observance and authentication for accuracy, suitability and applicability by a competent and licensed engineer, architect or other professional. REI disclaims any liability arising from the unauthorized and/or improper use of any information contained in this program or the documents provided within the program, or as a result of the usage of the program.