

JADAVPUR UNIVERSITY  
**COMPUTER AIDED DESIGN CENTRE**  
Faculty Council of Engineering and Technology  
**Kolkata - 700 032**

**Certificate Course on  
Structural Analysis And Design (STAAD)**

STAAD.Pro is one of the most widely used structural analysis and design software products worldwide. This is a generalised application software for almost all types of Civil Engineering structure. R.C.C. Framed structures of moderate height or any types of steel frames can be modelled very efficiently by its graphical user interface or in editor. The specialty of STADD.pro software is it has a very simple STAAD editor language to input the structure.

Civil, Construction, and Structural Engineers will highly appreciate this course.

**Course Duration:** 60 hrs

**Eligibility:** BE/BTech/AMIE passed in Civil/Construction engineering (final year students are also eligible).

Participants must have mobile devices running Android 4.0.3 or above; laptop/desktop computer with Windows; and stable internet connectivity. Google Meet should be preinstalled in the mobile device; and STAAD.Pro should be installed in the laptop/desktop.

**Course Content**

<b>Class No.</b>	<b>Theory/ Lab</b>	<b>TOPIC</b>	<b>Duration of Class</b>
Class –01	Theory	Introduction & General Idea of STAAD	1-30 hrs
Class – 02	Theory	Input Instructions for Geometry Generation For Plane Frames	1-30 hrs
Class –03	Theory	Input Instructions for Geometry Generation for space frames	1-30 hrs
Class – 04	Theory	Input Instructions for Geometry Generation of Tutorial <b>Problems set-1</b>	1-30 hrs
Class – 05	<b>Lab</b>	Practice for Tutorial <b>Problems set-1</b>	2 hrs
Class – 06	Theory	Input Instructions for Local axis , section, support & member specification etc	1-30 hrs
Class –07	Theory	Input Instructions for member Load, Floor Load , Joints Loads etc	1-30 hrs
Class – 08	Theory	Input Instructions for Seismic Load Generation	1-30 hrs
Class –09	Theory	Input Instructions for Loads of <b>Tutorial Problems set-2</b>	1-30 hrs
Class –10	<b>Lab</b>	Practice for Tutorial <b>Problems set-2</b>	2 hrs
Class –11	Theory	Input Instructions for Wind and Moving Load Generation	1-30 hrs
Class –12	Theory	Input Instructions for Concrete and steel design	1-30 hrs

Class –13	Theory	Input Instructions for Loads of <b>Tutorial Problems set-3</b>	1-30 hrs
Class –14	<b>Lab</b>	Practice for <b>Tutorial Problems set-3</b>	2 hrs
Class –15	Theory	Input Instructions for <b>Projects No-1 (Building day-1)</b>	2 hrs
Class –16	<b>Lab</b>	Practice for <b>Projects No-1 (Building day-1)</b>	2 hrs
Class –17	Theory	Input Instructions for <b>Projects No-1 (Building day-2)</b>	2 hrs
Class –18	<b>Lab</b>	Practice for <b>Projects No-1 (Building day-2)</b>	2 hrs
Class –19	Theory	Input Instructions for <b>Projects No-1 (Building day-3)</b>	2 hrs
Class –20	<b>Lab</b>	Practice for <b>Projects No-1 (Building day-3)</b>	2 hrs
Class –21	Theory	Input Instructions for Seismic Load Generation in advance	1-30 hrs
Class –22	Theory	Input Instructions for <b>Projects No-2 (moving load)</b>	1-30 hrs
Class –23	<b>Lab</b>	Practice for <b>Projects No-2 (moving load)</b>	2 hrs
Class –24	<b>Lab</b>	Practice for <b>Projects No-2 (moving load)</b>	2 hrs
Class –25	Theory	Input Instructions for <b>Projects No-3 (Plain truss)</b>	2 hrs
Class –26	<b>Lab</b>	Practice for <b>Projects No-3 (Plain truss)</b>	2 hrs
Class –27	<b>Lab</b>	Practice for <b>Projects No-3 (Plain truss)</b>	2 hrs
Class –28	Theory	Input Instructions for <b>Projects No-4 (Over Head Water Tank)</b>	1-30 hrs
Class –29	<b>Lab</b>	Practice for <b>Projects No-4 (Over Head Water Tank)</b>	2 hrs
Class –30	<b>Lab</b>	Practice for <b>Projects No-4 (Over Head Water Tank)</b>	2 hrs
Class –31	<b>Lab</b>	Practice for <b>Projects No-4 (Over Head Water Tank)</b>	2 hrs
Class –32	Theory	Theory Examination Test Part-01	2 hrs
Class –33	Theory	Theory Examination Test Part -02	2 hrs
Class –34	<b>Lab</b>	Lab Examination	1 hr

**Certificate:** Completion certificate (in printed form) will be provided at the end of the course.