



**SRI VENKATESWARA COLLEGE OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**



**Report of the Workshop on**  
**“Advanced Structural Analysis using STAAD.Pro”**



**25.07.2023 & 26.07.2023**

**Coordinator**

**Mr. A. Vijay Vignesh**  
(AP/Civil Engg.)

**Convenor**

**Dr. R. Kumutha**  
HoD/Civil Engg.



# SRI VENKATESWARA COLLEGE OF ENGINEERING

(An Autonomous Institution affiliated to Anna University, Chennai)

Pennalur, Sriperumbudur Tk – 602 117



## DEPARTMENT OF CIVIL ENGINEERING



### Report of the Workshop on “Advanced Structural Analysis using STAAD.Pro”

Dates : 25.07.2023 & 26.07.2023  
Timings : 08.30 A.M – 03.30 P.M  
Mode : Offline  
Venue : CADD Lab, SVCE

#### Speaker

**Mr. R. Balamourougane**

Structural Manager

STAAD Consultant

TechApps Consulting, Chennai

#### Convenor & Organizing Secretary

Dr. R. Kumutha, Professor & Head/Civil Engineering

#### Coordinator

Mr. A. Vijay Vignesh, Assistant Professor/Civil Engineering

#### Target Audience: IV Year Students & Faculty Members

Number of Participants benefited: 34

UG Students : 30

Faculty members : 2

Lab Instructors : 2

Total No of Internal Participants – 34

Students – 30, Faculty members – 2, Lab Instructors - 2

# BROCHURE



**S V C E** | Sri Venkateswara  
College of  
Engineering



(Autonomous - Affiliated to Anna University)  
Pennalur, Sriperumbudur Tk., - 602117, Tamil Nadu

**Department of Civil Engineering**

in association with

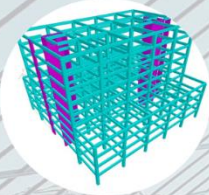
**TechApps Consulting, Chennai**

jointly invite you for

**Workshop**

on

**Advanced Structural Analysis using STAAD.Pro**



**Mr. R. Balamourougane**  
Structural Manager  
STAAD Consultant  
TechApps Consulting, Chennai



**Scheduled on**  
25th & 26th, July 2023

**Venue: CADD Lab (14-102B)**

**Target Audience: IV Year Students (2020-24 batch)**

**Faculty Coordinator**  
Mr. A. Vijay Vignesh, AP/Civil

**Convenor & Organizing Secretary**  
Dr.R.Kumutha  
Head of the Department  
Civil Engineering

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## Workshop on "Advanced Structural Analysis using STAAD Pro" - reg

1 message

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**Vijay Vignesh CVE** <avijayvignesh@svce.ac.in>  
To: Rajesh Kumar <sales@techappsconsulting.in>  
Cc: HOD Civil SVCE <hodce@svce.ac.in>

Mon, Jul 24, 2023 at 11:12 AM

Dear Sir,

PI find the attached brochure for the Workshop on **"Advanced Structural Analysis using STAAD Pro"** which is planned on **25th & 26th July, 2023** for our IV year students.

*--- Thanks and Regards ---*

Vijay Vignesh

Assistant Professor - Civil Department,  
Sri Venkateswara College of Engineering,  
Sriperumbudur



**Workshop on Advanced Structural Analysis using STAAD Pro.png**  
3938K

## **PROFILE OF THE SPEAKER**

Mr.R.Balamourougane who is currently designated as the Structural Manager in TechApps Consulting, Chennai. He is a strong consulting professional graduated from Pondicherry Engineering College. He is experienced Consultant with a demonstrated history of working in the civil engineering industry. He is also a Certified trainer in Bentley systems. He is skilled in Structural Engineering, Bridge, Structural Analysis, Retaining Walls, and Steel Design.

## **BRIEF REPORT OF THE WORKSHOP**

Mr. A. Vijay Vignesh, Assistant Professor, Department of Civil Engineering, Sri Venkateswara College of Engineering has delivered the welcome address and introduced the speaker Mr. R. Balamourougane, to all the participants.

The speaker welcomed the gathering and gave a brief overview on STAAD Pro software and its importance in construction projects. The following steps were covered during the hands-on session on Advanced concrete design of the structure using STAAD Pro software,

- a. Structural Modeling - Adding Beams using Tools, Creating Beams (Colinear, Along Axes), Creating Plates, Creating Surfaces, Creating Solid Elements, Creating Structure. Participants created a sample structure with predefined dimensions.
- b. Material Constants and Section Properties - Material Constants, Creating and Editing Material Properties, Assigning Materials to the Structure
- c. Member Specifications and Supports - Node Specification, Member Specifications, Plate Specifications, Supports (Pinned/fixed)
- d. Loads - Types of Loads: Self weight, Nodal, Member, Area, Floor, Plate, Surface and Solid; Load Generation, Load Combinations.
- e. Comply with seismic requirements & Wind Loads - Design and detail seismic force-resisting systems, generating seismic loads according to the relevant IS code. Participants considered the ductility requirements of the selected design code in element proportioning and detailing.
- f. Performing Analysis - Pre-Analysis, Problem Statistics, Joint Coordinates, Member Information, Material Properties, Support Information, Element & Solid Information; Performing Analysis
- g. Post Processing & Report Creation - Output File, Post Processing Mode.
- h. Concrete drawings and schedules - Generate comprehensive reinforcing drawings including automated rebar labels, dimensions, and notes, as well as rebar placing drawings, including

sections, plans, and details from the 3D model. This part is carried out in STAAD RCDC software. The footing drawing and specifications were generated using the same software.

- i. Quantity Takeoffs - Calculating material takeoffs and cost estimation.

The speaker concluded the session and discussed on the queries/doubts raised by the participants.

The session was interactive, and the questions raised by the students were answered by the speaker. The session ended with a vote of thanks delivered by Mr. A. Vijay Vignesh, Assistant Professor, Department of Civil Engineering, Sri Venkateswara College of Engineering. The participants also had appreciated the workshop.

## **Program Objectives**

The objectives of the workshop are:

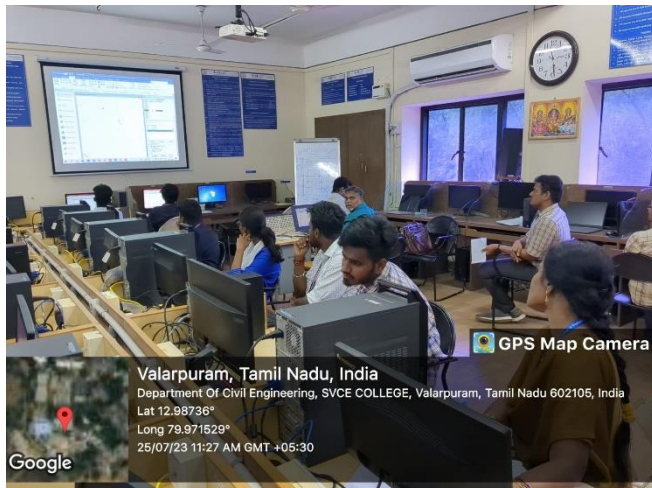
- To provide hands on training on advanced structural analysis of a building as per Indian Standards using STAAD.Pro software for the students.

The following Program Outcomes (POs) and Program Specific Outcomes (PSOs) are addressed for the Workshop on “**Advanced Structural Analysis using STAAD.Pro**”,

Particulars	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Advanced Structural Analysis using STAAD.Pro	✓	✓	✓	✓	✓			✓				✓	✓	✓

**Feedback Link:** <https://forms.gle/z72WPjSTFkJovraF8>

## SNAPSHOTS OF THE WORKSHOP



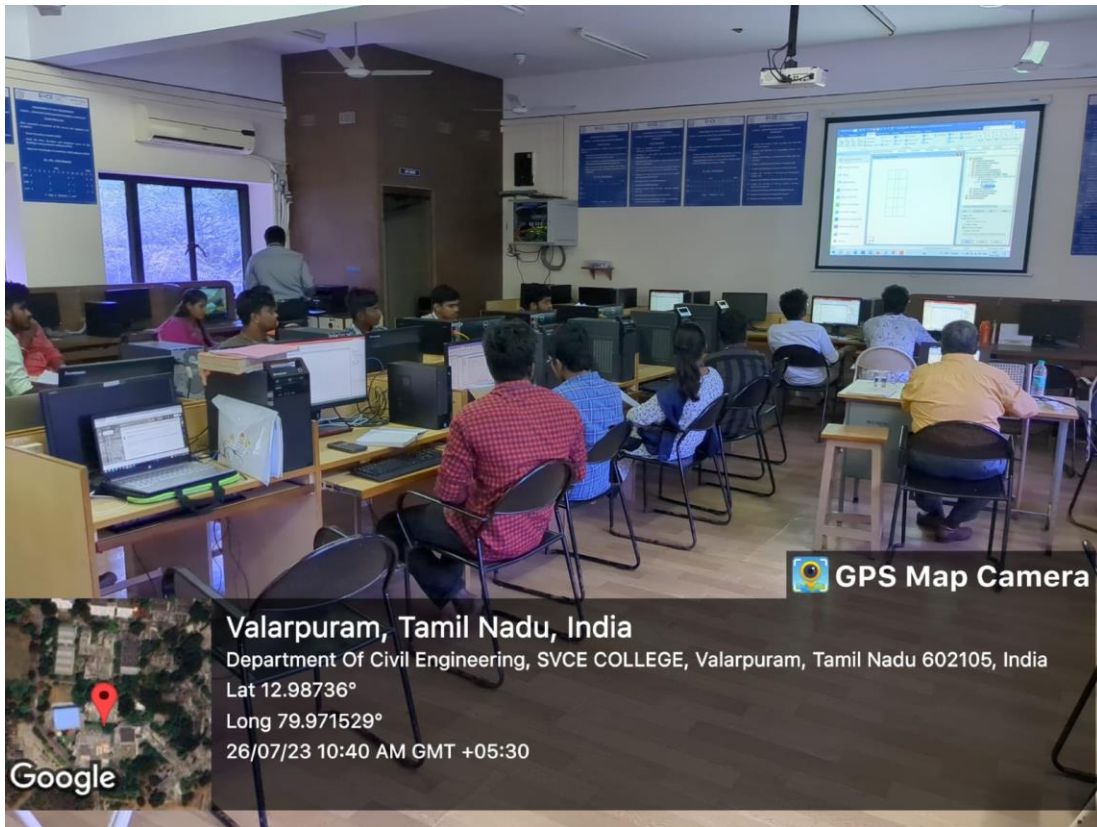
GPS Map Camera

Valarpuram, Tamil Nadu, India  
Department Of Civil Engineering, SVCE COLLEGE, Valarpuram, Tamil Nadu 602105, India  
Lat 12.98736°  
Long 79.971529°  
25/07/23 11:27 AM GMT +05:30

Google







**Valarpuram, Tamil Nadu, India**

Department Of Civil Engineering, SVCE COLLEGE, Valarpuram, Tamil Nadu 602105, India

Lat 12.98736°

Long 79.971529°

26/07/23 10:40 AM GMT +05:30

Google

### LIST OF PARTICIPANTS

S.No.	Register No.	Name of the Student	Year
1	2127200401001	AMARAVATHY	IV Year Student
2	2127200401002	AURUDRA ADISESHIAH KRISHNA	IV Year Student
3	2127200401003	AVINASH	IV Year Student
4	2127200401004	CHANDRAVASAN	IV Year Student
5	2127200401005	DHANUSH KANNAN	IV Year Student
6	2127200401006	GIRI RAVENDAR	IV Year Student
7	2127200401007	KEERTHIVASAN	IV Year Student
8	2127200401008	MOHAMMAD SALMAAN SHARIFF	IV Year Student
9	2127200401009	NARESH	IV Year Student
10	2127200401010	PRATHIBA	IV Year Student
11	2127200401011	PRAVEEN KUMAR	IV Year Student
12	2127200401012	PRAVEEN RAJ	IV Year Student
13	2127200401013	PREM KUMAR	IV Year Student
14	2127200401015	PUVIARASU	IV Year Student
15	2127200401016	RAMANA	IV Year Student
16	2127200401017	RETHEKA SHIVAKUMAR	IV Year Student
17	2127200401018	RITHICK	IV Year Student
18	2127200401019	SENTHIL SERMA KUMAR	IV Year Student

<b>S.No.</b>	<b>Register No.</b>	<b>Name of the Student</b>	<b>Year</b>
19	2127200401020	SIDDHARDH	IV Year Student
20	2127200401022	SRILEKHA	IV Year Student
21	2127200401023	VINNU VIKRAM	IV Year Student
22	2127200401301	BAALA SUBRAMANIYAN	IV Year Student
23	2127200401303	BHARATH	IV Year Student
24	2127200401304	JAYA SURYA	IV Year Student
25	2127200401305	MANIMARAN	IV Year Student
26	2127200401306	MONICA	IV Year Student
27	2127200401307	SANTHOSH KUMAR	IV Year Student
28	2127200401308	SHANTHA GOWTHAM	IV Year Student
29	2127200401309	SYED AFRIDEEN	IV Year Student
30	2127200401311	ZAAHIR SHA	IV Year Student
31	-	RUBY FREYA	Faculty
32	-	KALAIVANNAN	Faculty
33	-	BHUVANESWARI	Lab Instructor
34	-	VENKATAKRISHNAN	Lab Instructor

## PARTICIPATION CERTIFICATE



**Bentley**<sup>®</sup>  
Advancing Infrastructure

### Certificate of Accomplishment

THIS CERTIFICATE IS PRESENTED TO

**SANTHOSH KUMAR NM**

upon successful completion of  
**STAAD.Pro Advanced Course - Seismic & Wind CONNECT Edition | EN | EN**

Product: <u>STAAD.Pro Advanced</u>	Version: <u>CONNECT Edition</u>
Course Date: <u>July 25, 2023 - July 26, 2023</u>	Learning Units: <u>10</u>
Training Partner: <u>Techapps Consulting</u>	

*Amit Trehan*

**Amit Trehan**  
Director, User Learning  
Bentley Systems Inc.

Certificate ID: 2016185619

**Bentley**  
Advancing Infrastructure

Participants can download their certificates from the Bentley website.

**Link:** <https://learn.bentley.com/app/Public>

# Feedback link - Workshop on “Advanced Structural Analysis using STAAD.Pro” - Civil Department - SVCE

Feedback Form  
Department of Civil Engineering

**Workshop on “Advanced Structural Analysis using STAAD.Pro”**

Date: **25.07.2023 & 26.07.2023**

Speaker Name:  
**Mr. R. Balamourougane**  
Structural Manager  
STAAD Consultant  
TechApps Consulting, Chennai

Kindly provide your valuable feedback.

Email ID \*

2020ce0323@svce.ac.in

Name of the Participant \*

Srilekha. N

Name of the Department \*

Civil Engineering

Category \*

- Third year student
- Final year student
- Faculty
- Lab Technician

Mobile number (Whatsapp)

8667320969

Please rate your satisfaction with the content of the Lecture delivered by the speaker by indicating your level of agreement or disagreement with each of the following statements. \*

	Strongly agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The subject matter was presented effectively.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The pace and duration of the workshop was satisfactory.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The resource person is knowledgeable.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The resource person presented the information in a clear and logical manner	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sufficient time was given for interaction	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The workshop was well organized	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
As a result of this workshop, I gained new knowledge	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are you interested in attending such programs organized in future by the Department of Civil Engineering of SVCE \*

Yes

No

Additional Comments/Feedback \*

Nil

This form was created inside of Sri Venkateswara College of Engineering.

Google Forms

## SUMMARY OF FEEDBACK

<b>Total Number of respondents: 34</b>				
<b>Feedback</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>
The session delivered the information I expected to receive.	27	7	0	0
The subject matter was presented effectively.	29	5	0	0
The pace and duration of the workshop was satisfactory.	29	5	0	0
The resource person is knowledgeable.	31	3	0	0
The resource person presented the information in a clear and logical manner	30	4	0	0
Sufficient time was given for interaction	27	7	0	0
The workshop was well organized	28	6	0	0
As a result of this workshop, I gained new knowledge	30	4	0	0

## SUMMARY OF FEEDBACK

As a result of this workshop, I gained new knowledge

The workshop was well organized

Sufficient time was given for interaction

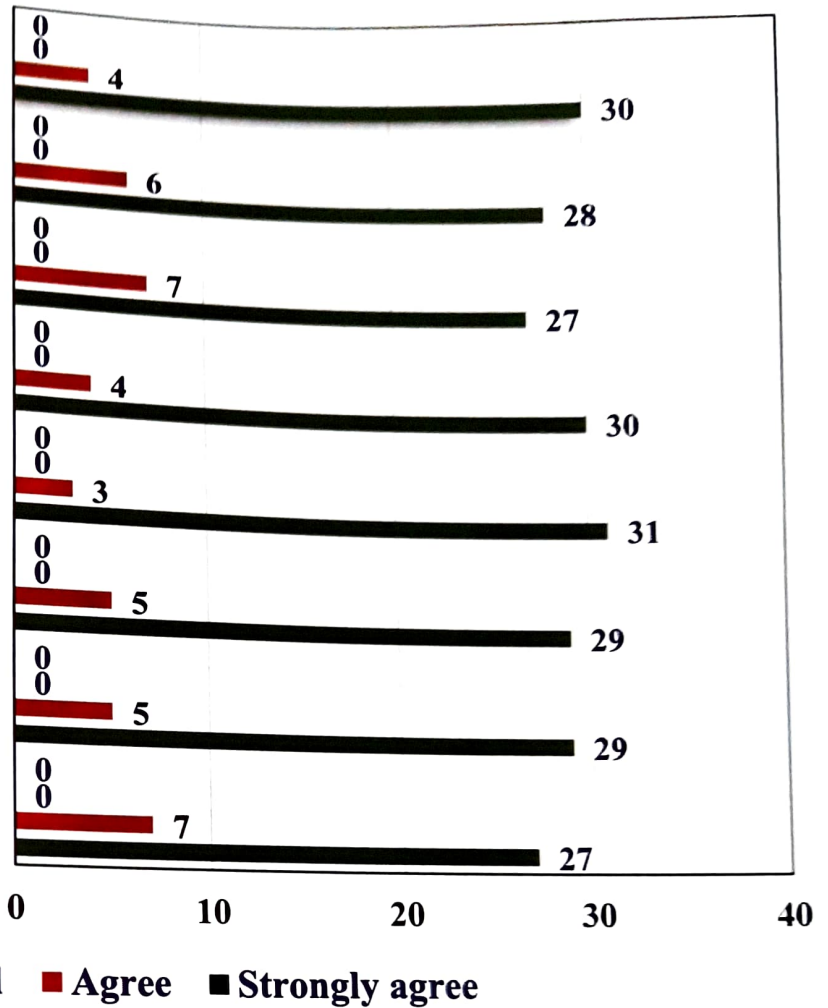
The resource person presented the information in a clear and logical manner

The resource person is knowledgeable.

The pace and duration of the workshop was satisfactory.

The subject matter was presented effectively.

The session delivered the information I expected to receive.



*Vijay Vignesh*  
Prepared by

**A. Vijay Vignesh (AP/Civil Engg.)**  
**Coordinator**

*Dr. R. Kumutha*

Approved by  
**Dr.R. Kumutha (HoD/Civil Engg.)**  
**Convenor & Organizing secretary**