

SCHOOL OF INFRASTRUCTURE

DEPARTMENT OF CIVIL ENGINEERING

Ref. : 1333 / Dean(Sol) / 1125

Date: 14.11.2025

Hands-on Training on

Structural Analysis and Design of RCC Buildings and Flat Slab Systems using ETABS & SAFE

Date: 06.11.2025

Time: 09.30 a.m. to 12.30 p.m.

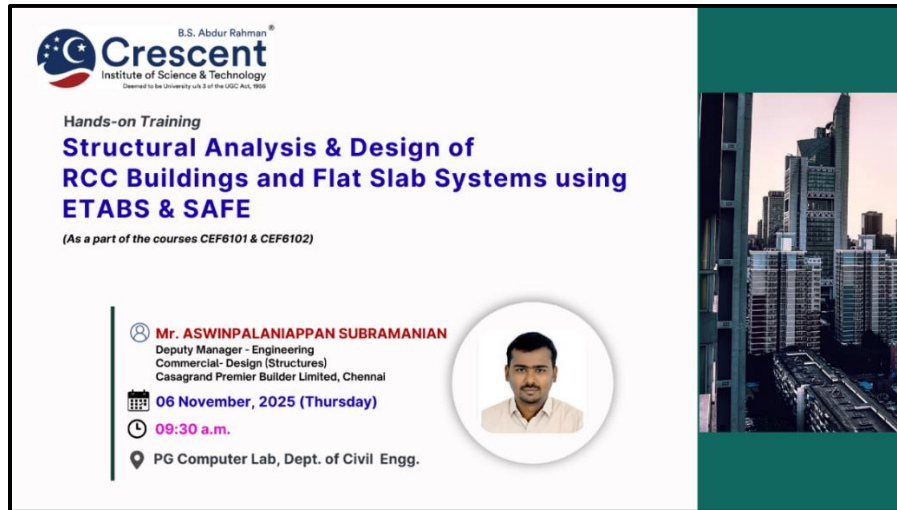
I. PREAMBLE:

As part of the M.Tech (Structural Engineering) curriculum of the Department of Civil Engineering, B. S. Abdur Rahman Crescent Institute of Science and Technology, a Hands-on Training on "Structural Analysis and Design of RCC Buildings and Flat Slab Systems using ETABS & SAFE" was arranged for the courses EF6101, Advanced Design of Concrete Structures & CEF6102, Dynamics of Structures for I & III sem, M.Tech (Structural Engineering) on 06th November March 2025 from 09.30 a.m. to 12.30 p.m.

II. ABOUT THE SPEAKER

Mr. Aswinpalaniappan Subramanian is a Deputy Manager - Engineering, Commercial- Design (Structures), Casagrand Premier Builder Limited, Chennai. He completed his Diploma in Civil Engineering from Subramanian Polytechnic College, Pudukkottai in 2014, B.E. (Civil Engineering) in 2017, and M.E (Structural Engineering) in 2019 from Sri RaajaRaajan College of Engineering and Technology, Karaikudi, affiliated with Anna University, Tamil Nadu. Currently, he is pursuing Ph.D. in Civil Engineering at B.S. Abdur Rahman Crescent Institute of Science and Technology. His research focus is on seismic dampers and vibration control systems.

He worked as a Senior Structural Engineer in Vetrivel Engineering Enterprises, Trichy and Senior Civil and Structural Engineer in Avis Enertech Pvt Limited, Chennai, and Senior Structural Engineer in DAC Developers, Chennai. He is also a CMDA-registered Professional Engineer and a DTCP-registered Professional Engineer.



Invitation Brochure

III. ABOUT THE SESSION:

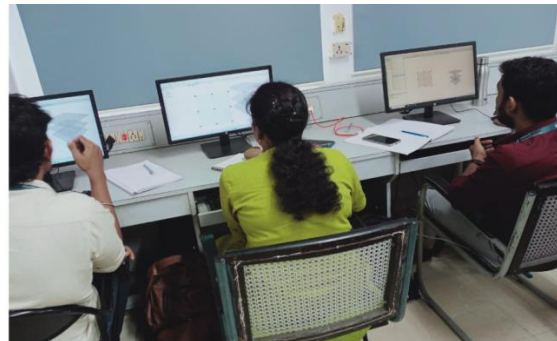
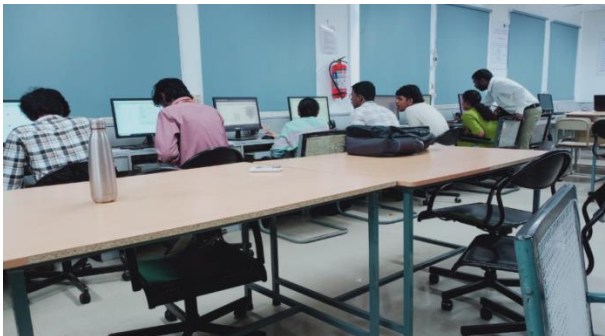
Dr. P. Gajalakshmi, Professor of Civil Engineering, extended a warm welcome to the guest speaker and participants, and introduced the guest speaker. She highlighted the benefits of learning structural modelling, analysis, and design using industry-standard software tools such as ETABS and SAFE.

Following this, Dr. J. Revathy, Professor of Civil Engineering, provided an overview of the hands-on training organised as part of the M.Tech (Structural Engineering) curriculum. The session was specifically arranged to supplement two courses: CEF6101 Advanced Design of Concrete Structures and CEF6102 Dynamics of Structures. As the course teacher for CEF6101, Dr. Revathy explained that the training would support students in understanding the creation of structural geometry, assignment of material and section properties, load application, and the execution of analysis procedures.

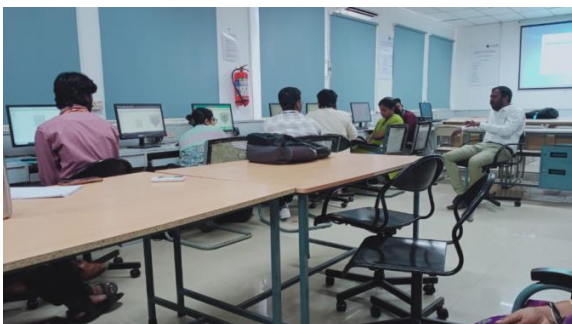
The training was designed to strengthen the participants' practical competence in structural modelling, analysis, and design using ETABS and SAFE. The session covered comprehensive steps, beginning with model creation and extending to assignment of material properties, load applications, and complete analysis procedures. Participants were introduced to advanced concepts related to reinforced concrete building systems, flat slab behaviour, and dynamic response of structures, including modal analysis and vibration characteristics.

Detailed demonstrations were provided on model validation, load combinations as per relevant IS Codes, interpretation of analysis outputs, and design review procedures to ensure both structural safety and serviceability. Emphasis was placed on understanding software-generated results, identifying modelling inconsistencies, and adopting safe design practices in line with Indian Standards and international best practices. The session also addressed common challenges encountered in real-life design environments and demonstrated systematic approaches for informed decision-making in structural engineering using software-driven insights.

Following the lecture, an interactive Q&A session allowed students to engage in discussions on practical difficulties. Mr. Aswinpalaniappan provided insightful responses, sharing his expertise and field experience. The session concluded with a vote of thanks delivered by Dr. P. Gajalakshmi. She expressed her appreciation to Mr. Aswinpalaniappan Subramanian for his valuable time and knowledge-sharing. She emphasized that the session offered students meaningful insights into the challenges associated with structural analysis of buildings and strengthened their understanding of the fundamental principles covered in the Structural Engineering courses.



Hands-on training given to the students by Mr. Aswinpalaniappan



IV. DETAILS OF PARTICIPANTS:

The following were the participants of I & II-year M. Tech (Structural Engineering) & IV year, B.Tech (Civil Engineering) who attended the technical talk:

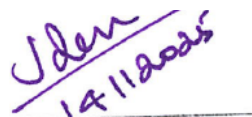
Sl. No.	Name	RRN
1.	Guruprasadh A	251202601001
2.	Rahini D A	251202601002
3.	Shameer M	251202601003
4.	Hudson Gnanadurai C	241202601004
5.	Jessica Jenny James	241202601005
6.	Anandha Kumar.R	220011601007
7.	Dheepak Kumar	220011601011
8.	Pradheesh.M	220011601020

V. OUTCOME:

- ❖ Students gained practical exposure to structural modelling and analysis of RCC buildings and flat slab systems using ETABS and SAFE.
- ❖ Students strengthened their understanding of load application, analysis procedures, and interpretation of results.
- ❖ Students will develop the ability to apply software-based design methodologies aligned with relevant IS codes and structural engineering standards.
- ❖ Students gained confidence to connect theoretical concepts with real-world design workflows, preparing them for industry-oriented structural engineering applications.



Dr. P. Gajalakshmi
Professor



Dr. J. Revathy
Professor



Dr. M.S. Haji Sheik Mohammed
Dean (School of Infrastructure)