

SWAMI VIVEKANAND INSTITUTE OF ENGINEERING & TECHNOLOGY

Approved by AICTE, New Delhi and Affiliated to IKGPTU, Jalandhar

Workshop on Latest Software in Civil Engineering

Organizer's Name: Department of Civil Engineering

Coordinator: Er Yasir Hussain & Er Kaushik Bharti.

Speaker: Er. Karan Chhabra

Affiliated Institution of Speaker : CADD Centre, Panchkula.

Date: 17th March 2025

Venue: SVIET, Seminar Hall (Block F)

Introduction of the Event

The "Workshop on Latest Software in Civil Engineering" was held on 17th March, 2025 at Seminar Hall (Block F) in Swami Vivekanand Group of Institutions, Banur. The workshop aimed to provide civil engineering students and faculty members with valuable insights into the newest advancements in software tools that are revolutionizing the field of civil design, simulation, and analysis. This event featured presentations, demonstrations, and hands-on sessions with industry-leading software, fostering a collaborative environment for knowledge sharing.



Insights from the Events

Objective of the Event:

The primary objectives of the workshop were:

- ✚ To introduce attendees to the latest software technologies those are shaping the future of l engineering.
- ✚ To demonstrate how modern software can enhance the efficiency and accuracy of design, simulation, and analysis in civil engineering.
- ✚ To provide a platform for networking and discussions among professionals and academics in the field of civil engineering.
- ✚ To offer a practical, hands-on experience in using these software tools to solve real-world engineering problems.

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Agenda of the Session:

The workshop followed a structured agenda that included both theoretical discussions and practical sessions to ensure a comprehensive understanding of the topics covered.

1. Welcome and Introduction

A brief introduction to the workshop and its objectives, followed by a welcome address by the event organizer.

2. Sessions

Session 1: Overview of Latest Software in Civil Engineering:

Comprehensive session presenting an overview of the latest software tools used in civil engineering, such as BIM (Building Information Modeling), structural analysis software, project management tools, and geotechnical software.

Session 2: Advanced Structural Design and Analysis Software

Presentations and demonstrations focused on advanced structural design and analysis software, including tools for steel and concrete design, seismic analysis, and load calculations.

Session 3: BIM and Project Management Tools in Civil Engineering

A deep dive into the role of Building Information Modeling (BIM) in improving collaboration and efficiency in construction projects. This session also highlighted the use of project management tools for time, cost, and resource management in civil engineering projects.

Session 4: Hands-On Workshop: An interactive session where participants had the opportunity to use software tools for structural design, analysis, and project management, guided by industry professionals.

3. Interactive Q&A Session:

After each session, a Q&A round was held, where participants actively engaged with the speakers, clarifying their doubts and discussing potential uses of the software in academic and professional settings.

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4. Bumper Prize Announcement:

Speaker announced a bumper prize for all the participants, in which an online assessment was conducted by CADD CENTRE and the toppers of the assessment would get digital gadgets like Laptops, Digipads & Mobiles and Jackpot winners would get chance for Dubai Trip.

5. Career Counseling :

Speaker in addition to Prize announcement also offered free career counseling only for SVIET students in which they can consult for any queries related to career choosing and other queries related to choosing software.



Visual of Participants

Key Discussions and Insights :

Integration of AI in Civil Software: One of the key discussions revolved around the integration of artificial intelligence (AI) and machine learning into civil design software. This technology is enabling more intelligent designs, better optimization, and predictive maintenance.

Cloud-Based Software Solutions: Another critical insight shared was the growing shift towards cloud-based solutions in civil engineering software. These solutions allow for greater collaboration, real-time data sharing, and remote access to tools and designs.

Importance of Simulation: There was a significant emphasis on the role of simulation in modern civil engineering. Software tools for STAAD PRO and ANSYS are becoming indispensable for verifying design concepts before physical prototyping, saving time and resources.

Customization and Adaptability: The participants appreciated how the latest software tools offer greater flexibility and adaptability, allowing engineers to customize them according to specific project requirements. This was particularly useful in industries such as automotive and aerospace.

Industry Collaboration: The event highlighted the importance of collaboration between academia and industry professionals. Such partnerships are crucial for ensuring that software solutions address real-world engineering challenges.

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Increased Awareness: Attendees gained a thorough understanding of the latest software tools available in the civil engineering industry and their practical applications in design and analysis.

Hands-On Experience: The workshop allowed participants to gain hands-on experience with state-of-the-art software tools, enhancing their technical skills and understanding of the software's capabilities.

Future Learning: The discussions on emerging technologies and future trends sparked interest among participants to explore further learning opportunities and stay updated on the latest software innovations in civil engineering.

Key Outcomes:

The "Workshop on Latest Software in Civil Engineering" was a highly successful event, providing participants with critical insights into the evolving landscape of civil engineering software. The practical sessions, expert-led discussions, and collaborative environment made it a valuable experience for all attendees, setting the stage for further advancements and applications in the field.



Ms. Shivani Guleria
Hod, Civil