



WAKNAGHAT, P.O. – WAKNAGHAT, TEHSIL – KANDAGHAT, DISTRICT – SOLAN (H.P.) PIN – 173234 (INDIA) Phone Number- +91-1792-257999 (Established by H.P. State Legislature vide Act No. 14 of 2002)



#### **Three-Day ETABS Design Training Program**

# Department of Civil Engineering, JUIT Waknaghat December 22–24, 2025

Program Coordinator: Dr. Tanmay Gupta, Assistant Professor Department: Civil Engineering

Industry Partner: CSI Engineering Software Pvt. Ltd., India

#### 1. Introduction

The Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Waknaghat successfully organized a **Three-Day Specialized ETABS Design Training Program** for Assistant and Junior Engineers of the **Himachal Pradesh Public Works Department (HPPWD)** from **December 22 to December 24, 2025**. The program was designed as a focused capacity-building initiative aimed at enhancing practical skills in structural modelling, analysis, and design using ETABS, with special emphasis on seismic safety and Himalayan region-specific challenges.

This training program is part of JUIT's continued efforts to strengthen **industry-academia collaboration** and to support state government departments through need-based, application-oriented technical training.

#### 2. Inaugural Session

The training program was formally inaugurated on **December 22**, **2025**, by **Prof. (Dr.) Rajendra Kumar Sharma, Vice Chancellor, JUIT**. In his inaugural address, the Hon'ble Vice Chancellor emphasized that **India must move forward to become a global industry leader in structural design and safety**. He highlighted that such progress is only possible through **skill-oriented academic-industry initiatives**, where practicing engineers are regularly exposed to modern tools, updated codes, and best practices. He also underlined the critical role of well-trained structural engineers in ensuring **safe, resilient, and sustainable infrastructure**.

Brigadier R. K. Sharma, Registrar and Dean of Students, JUIT, was also present during the inaugural session. In his address, he stressed that effective supervision and on-site vigilance are among the most crucial responsibilities of civil engineers. He emphasized that quality control and safety cannot rely solely on software outputs and must be ensured at every stage of planning, execution, and monitoring.

**Dr. Tanmay Gupta, Assistant Professor, Department of Civil Engineering, JUIT, and Program Coordinator**, highlighted the importance of understanding **new and revised building codes**, particularly **IS 1893:2025** and the **draft version of IS 456**, to develop strong fundamental design concepts. He emphasized that *effective and responsible use of commercial structural software like* 





WAKNAGHAT, P.O. – WAKNAGHAT, TEHSIL – KANDAGHAT, DISTRICT – SOLAN (H.P.) PIN – 173234 (INDIA) Phone Number- +91-1792-257999 (Established by H.P. State Legislature vide Act No. 14 of 2002)



ETABS is only possible when engineers are well-versed with the latest codal provisions, especially in the context of earthquake- and landslide-prone Himalayan regions. He further highlighted the relevance of these aspects in the context of **Himachal Pradesh**, where seismic vulnerability, complex terrain, and landslide risks demand a higher level of design responsibility.

**Prof. Ashish Kumar**, Head of the Department, expressed his gratitude to all dignitaries, expert speakers, and participants. He underscored the importance of **industry–academia collaboration** in enhancing professional competence and ensuring safer infrastructure practices

The inaugural session was attended by faculty members, Ph.D. scholars, and the participating engineers from HPPWD.

#### 3. Program Overview and Objectives

The primary objectives of the ETABS Design Training Program were:

- To enhance engineers' understanding of structural modelling and analysis using ETABS
- To strengthen conceptual clarity regarding seismic and wind load analysis as per Indian Standards
- To familiarize participants with advanced design techniques for RC and steel structures
- To promote responsible and informed use of commercial structural software in professional practice
- To bridge the gap between theoretical code provisions and real-world engineering applications

The program also aimed to sensitize engineers to the importance of **earthquake-resistant design** in the seismically active and landslide-prone Himalayan region.

#### 4. Technical Sessions and Schedule

The three-day program was conducted through a balanced mix of **theoretical discussions**, **live software demonstrations**, **and hands-on practical sessions**. The detailed schedule was as follows:

#### Day 1 - December 22, 2025

- Registration and Inaugural Session
- Introduction to ETABS and discussion on relevant IS codes
- Structural model generation and boundary condition definition





WAKNAGHAT, P.O. – WAKNAGHAT, TEHSIL – KANDAGHAT, DISTRICT – SOLAN (H.P.) PIN – 173234 (INDIA) Phone Number- +91-1792-257999 (Established by H.P. State Legislature vide Act No. 14 of 2002)



- Importing and working with CAD (DWG/DXF) files in ETABS
- Comparison of ETABS workflow with STAAD
- Complex geometry modelling and load application

### Day 2 - December 23, 2025

- Seismic analysis as per IS code provisions
- Response Spectrum Method and Time History Analysis
- Wind load generation using built-in generators and custom applications
- Linear and nonlinear buckling analysis for slender structures

### Day 3 - December 24, 2025

- Advanced steel design for composite sections and connections
- Advanced design techniques for shear walls
- Case studies from real-life projects
- Valedictory session and post-training feedback

Adequate breaks were provided during each day to ensure effective learning and interaction.

#### 5. Resource Persons

The technical sessions were delivered by experienced academicians and industry professionals:

#### 1. Dr. Tanmay Gupta

Assistant Professor, Department of Civil Engineering, JUIT Waknaghat Program Coordinator

### 2. Dr. Anil Kumar

Assistant Professor, Department of Civil Engineering Chandigarh College of Engineering and Technology (CCET), Sector 26, Chandigarh

#### 3. Er. Anwesh Bhaduri

Channel Partner, CSIESPL

The diverse expertise of the speakers ensured a comprehensive coverage of both **academic foundations and industry practices**.

A total of 13 Assistant and Junior Engineers from HPPWD participated.





WAKNAGHAT, P.O. – WAKNAGHAT, TEHSIL – KANDAGHAT, DISTRICT – SOLAN (H.P.) PIN – 173234 (INDIA) Phone Number- +91-1792-257999 (Established by H.P. State Legislature vide Act No. 14 of 2002)











WAKNAGHAT, P.O. - WAKNAGHAT, TEHSIL - KANDAGHAT, DISTRICT - SOLAN (H.P.) PIN - 173234 (INDIA) Phone Number- +91-1792-257999









WAKNAGHAT, P.O. – WAKNAGHAT, TEHSIL – KANDAGHAT, DISTRICT – SOLAN (H.P.) PIN – 173234 (INDIA) Phone Number- +91-1792-257999 (Established by H.P. State Legislature vide Act No. 14 of 2002)



















