

**Swami Keshvanand Institute of Technology,
Management & Gramothan
Department of Civil Engineering**

In-house Internship

(16 May to 31 July 2025)

Faculty Coordinators

Mr. Anirudh Mathur, Dr. Nishant Sachdeva, Mr. Ankur Mishra

Introduction:

The Department of Civil Engineering organized an **In-House Internship Program** from **16 June 2025 to 31 July 2025** with the objective of enhancing the practical knowledge and technical skills of students through hands-on training, software learning, and field exposure. This internship was conducted within the department premises using laboratory facilities, licensed software tools, and modern surveying instruments.

The program was designed to bridge the gap between theoretical classroom learning and real-world engineering practices. During the internship period, students received structured training on drafting, planning, 3D modelling, infrastructure design, tendering procedures, and field surveying. In addition, site visits were conducted to provide students with direct exposure to ongoing construction activities and industry practices.

This internship served as an essential platform for students to strengthen their technical competence, improve problem-solving abilities, and develop a deeper understanding of practical civil engineering applications under the guidance of faculty members and technical experts.

Objectives of the Internship

1. **To develop practical skills in drafting, planning, and 3D modelling** using AutoCAD, Revit, and Civil 3D.
2. **To provide hands-on experience in field surveying** with Auto Level and Total Station.
3. **To introduce students to tendering, estimation, and basic construction practices** through lab work and site visits.
4. **To bridge the gap between theoretical learning and real-world applications** through guided technical training.

Details/List of teacher coordinators: -

Sr. No.	Name of Teacher	Branch
1	Mr. Anirudh Mathur	CE
2	Dr. Nishant Sachdeva	CE
3	Mr. Ankur Mishra	CE

Details/List of Students

Sr. No.	Name	Roll No.
1	Abhishek chandel	23ESKCE002
2	Abu sufiyan	23ESKCE003
3	Aditya Sharma	23ESKCE008
4	Ajay raj	23ESKCE010
5	Anjali Sharma	23ESKCE015
6	Anushka meena	23ESKCE018
7	Anushka Sharma	23ESKCE019
8	Bhumika Yogi	23ESKCE021
9	Deepak Kumar Bairwa	23ESKCE023
10	Dhruv Sehgal	23ESKCE026

11	Dinesh Kumar	23ESKCE028
12	Happy gill	23ESKCE035
13	Harsh badgurjar	23ESKCE037
14	Harshini Gupta	23ESKCE038
15	Himanshu Saugat	23ESKCE043
16	Honey Gill	23ESKCE044
17	Kuldeep Gurjar	23ESKCE052
18	Mahima Choudhary	23ESKCE058
19	Payal Meena	23ESKCE073
20	Pragya Sharma	23ESKCE075
21	Priyanka Lomror	23ESKCE078
22	Priyanshu kumawat	23ESKCE082
23	Rahul meena	23ESKCE089
24	Rameshwar Choudhary	23ESKCE090
25	Vishu thakur	23ESKCE120

Topics Covered During the In-House Internship

The Department of Civil Engineering conducted a comprehensive in-house internship program designed to enhance the practical skills of students through software training, field exposure, and real-time engineering activities. The following major topics were covered:

1. Drafting and Planning of a Residential Building using AutoCAD

Students learned the fundamentals of 2D drafting and developed complete residential building plans, including:

- Preparation of line plans and detailed architectural drawings
- Development of elevation and section views
- Understanding layers, dimensions, annotations, and plotting
- Basics of building bylaws and space planning

2. 3D Modelling using Revit

Training was provided on Building Information Modelling (BIM) using Revit:

- Creation of 3D architectural models
- Wall, door, window, slab, and roof modelling
- Generating schedules, sections, and rendered views
- Understanding the role of BIM in modern construction

3. Hands-on Training on Civil 3D Software

Students gained practical exposure to Civil-3D for infrastructure projects:

- Surface creation from survey data
- Alignment and profile generation
- Corridor modelling and earthwork calculations
- Basics of roadway design

4. Field Surveying using Auto Level and Total Station and Non-destructive Testing

Practical field training included:

- Conducting differential and profile levelling.
- Data collection, downloading, and plotting survey plans
- Perform NDT in consultation site.

5. Tendering and Estimation

Students were introduced to the basics of construction economics:

- Preparation of quantity estimates for residential works
- Rate analysis of major items as per standard schedules
- Introduction to tender documents, BOQs, and bidding processes
- Understanding CPWD/State PWD formats

6. Site Visits/Expert session

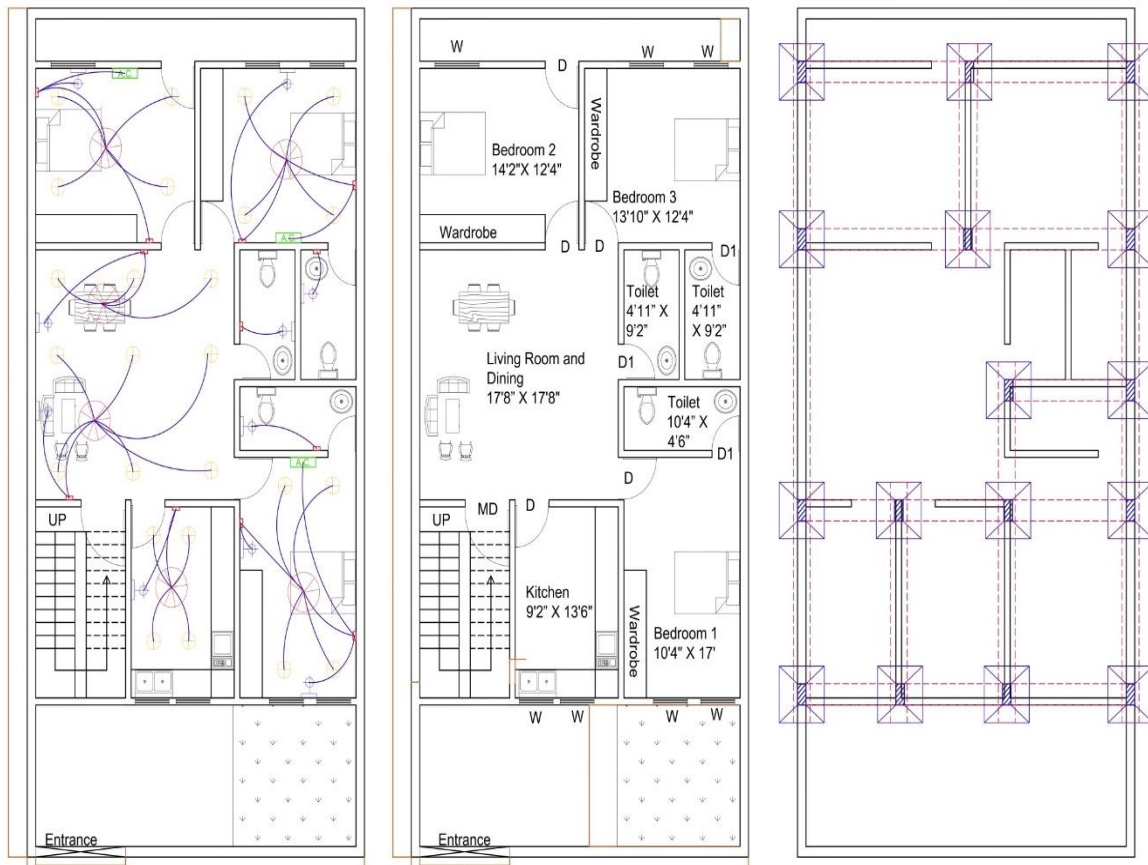
To provide real-time exposure, students visited ongoing construction sites to observe:

Follow site visit and expert lectures were conducted

1. **ROB consultations site, Civil Lines, Jaipur**
2. **Multistorey Building construction, Jagatpura, Jaipur**
3. **River front, City-park (oxygen park), Traffic signal free, Kota**
4. **Expert lecture by Dr. Manoj Kumar Pandit, Prof. of Geology, University of Rajasthan**
5. **Expert session by Mr. Nitin Gupta, Executive Engineer, JDA, Jaipur**
6. **Road safety awareness by Muskaan Foundation**
7. **Traffic Police Control centre to understand Intelligent Traffic Management System.**

Projects Completed by the students

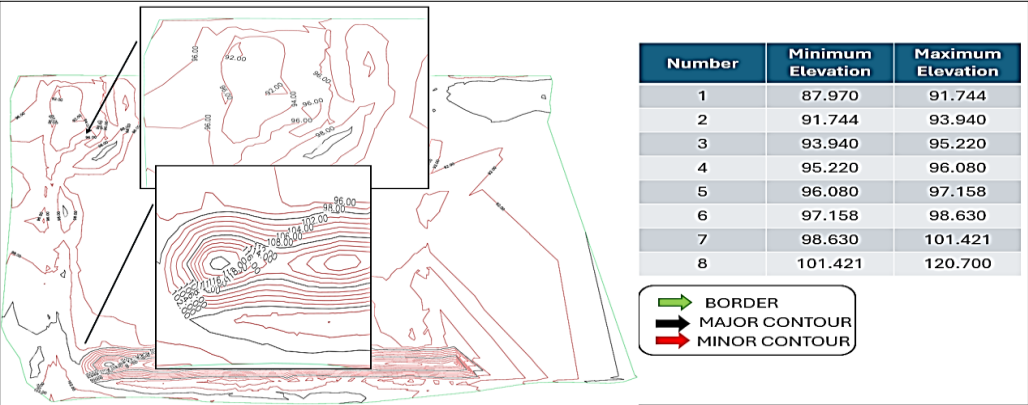
Floor Plan (AUTOCAD)



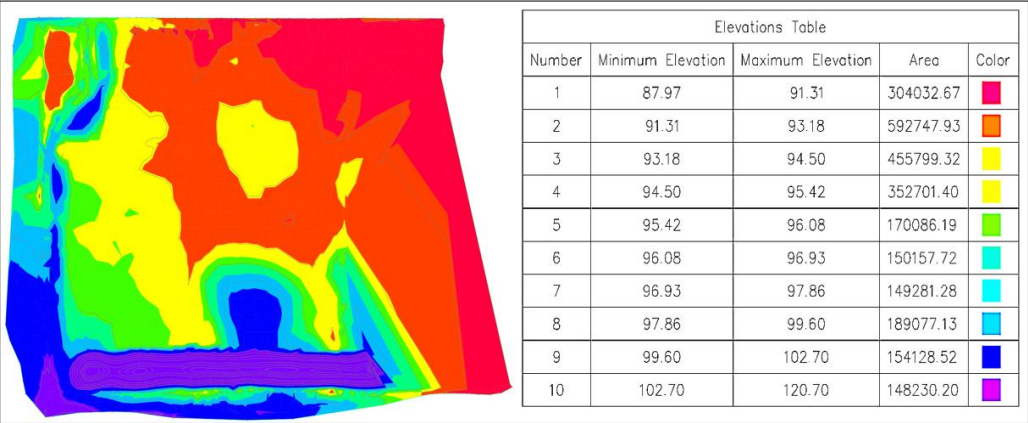
3D Modelling (Revit)



Surface analysis and Road Design (Civil 3D)
Contour Analysis



Elevation Analysis



The diagram illustrates the drainage system of a road. A green box on the left provides a detailed view of the drainage components, showing a yellow 'KERB' and an orange 'DRAIN'. An arrow points from this box to the main cross-section of the road. The main cross-section shows a blue 'Carriageway' and a grey 'Shoulder' on a green base. A red line indicates the center of the road.

Glimpse of Training





Event Coordinators

ER

N Sachdeva

ANKUR

Er. Anirudh Mathur / Dr. Nishant Sachdeva / Mr. Ankur Mishra