D. Y. Patil College of Engineering and Technology, KasabaBawada, Kolhapur

School of Architecture

SOCIAL REACH ACTIVITY REPORT

Name of activity	Educational Visit to Civil Excellence Lab
Course	Structural Engineering for Architecture – IV
Year	First Year and Final Year
Academic Year	2024-2025
Date	30/04/2025
Category	Curricular
Name of resource person/s	-
Designation of resource person/s	-
Faculty coordinator/s	Prof. Gouri Ajay mhetar
No. of beneficiaries	80
Class & Division	T.Y. div. A&B
CO mapped	315.1 , 315.2
PO mapped	PO-3, PO-5, PO-12
PO gap identified as per previous year	N.A.
PSO mapped	-

Brief description of the activity: As part of the practical learning initiative under the subject **Structural Engineering for Architecture – IV**, a lab visit was organized for **Third Year Architecture students**. The visit aimed to bridge the gap between theoretical knowledge and practical exposure, particularly in understanding **Reinforced Cement Concrete (RCC)** components and modern construction technologies.

2. Objective of the Visit

The primary objectives of the visit were:

- To provide students with **hands-on exposure** to real-time RCC elements.
- To demonstrate structural **details in slab, beam, column, and reinforcement lapping**.
- To understand **steel usage and connections** in building construction.
- To introduce students to **advanced construction innovations** like **3D-printed prototypes** developed in the lab.
- To showcase the workings of the **Ultratech-supported Cell of Excellence** within the Civil Engineering Department.
- **3. Visit Highlights**

During the visit, students explored various structural components and technologies, including:

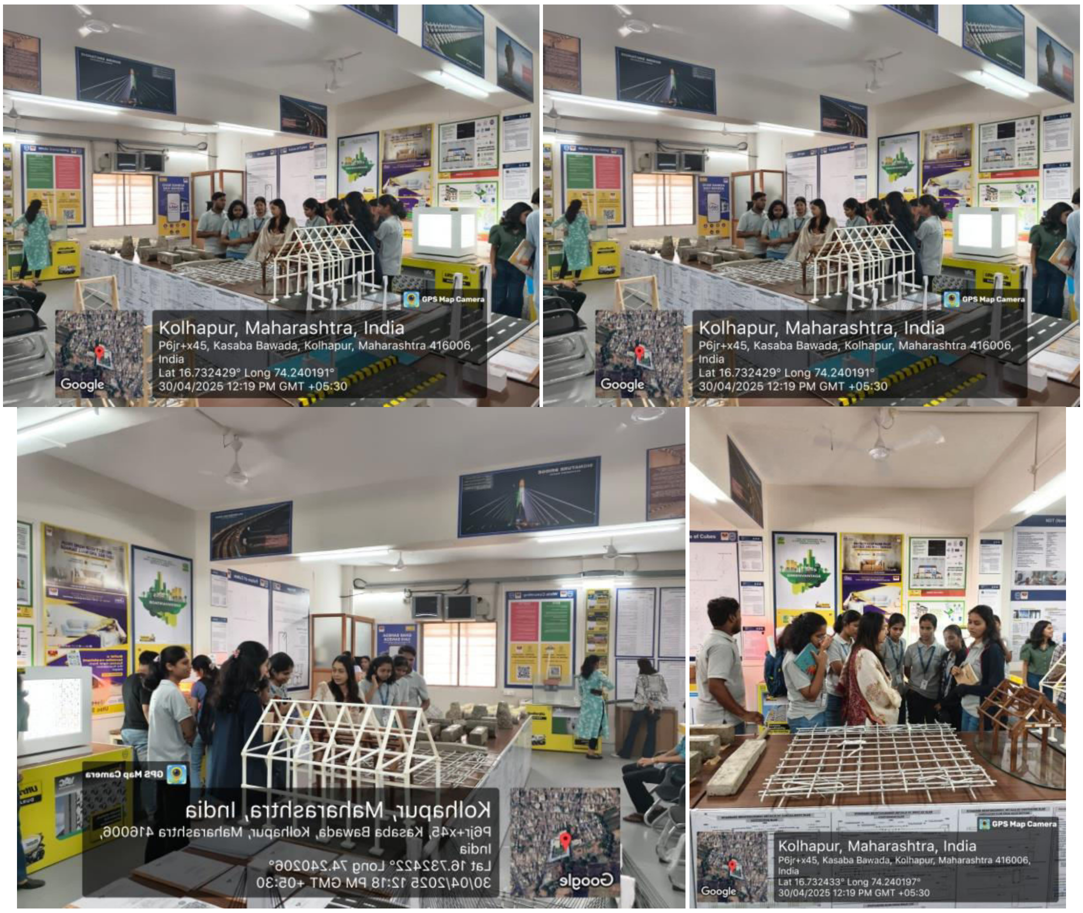
- **RCC slab reinforcement layouts** and shuttering techniques
- **Column and beam reinforcement detailing**, bar bending, and placing

- **Lapping and anchorage practices** as per IS codes
- Types of **steel connections** used in modern structural systems
- Demonstration of **3D-printed architectural and structural models**, showcasing innovative material use and technology in civil engineering

The expert faculty and lab staff from the **Civil Engineering Department** explained the practical aspects and design considerations, enhancing the students' technical understanding.

4. Learning Outcomes

- Enhanced student comprehension of **RCC detailing and site implementation**.
- Better understanding of **design-to-construction transitions** in architectural practice.
- Exposure to **emerging technologies** like 3D printing in construction.
- Strengthened interdisciplinary learning through collaboration with the Civil Engineering Department.



Visit to Civil Excellence Lab