

D. Y. Patil College of Engineering and Technology, Kasaba Bawada, Kolhapur
School of Architecture

Activity Report: Extension and Outreach Activities

Name of activity	Industry–Academia Connect PEB Site Visit at 5-Star MIDC, Kagal
Course	Architectural Design with Steel
Year	T.Y. B. Arch.
Academic Year	2025-2026
Date	08/10/2025
Category	Curricular
Name of resource person/s	Mr. Tanaji Patil
Designation of resource person/s	Steel Design Practitioner
Faculty coordinator/s	Prof. Gouri Ajay Mhetar
No. of beneficiaries	Div. A – 8, Div. B – 15, Total 27
Class & Division	T. Y. B. Arch. Div. A & B
CO mapped	CO.1., CO.2, CO.3
PO mapped	PO1, PO7, PO8, PO9, PO3, PO10
PO gap identified as per previous year	PO3, PO10
PSO mapped	PSO 2

Brief description of the activity

As part of the elective course *Architectural Design with Steel*, Third-Year Bachelor of Architecture students from D. Y. Patil College of Engineering and Technology, Kolhapur, participated in an industrial site visit to a Pre-Engineered Building (PEB) fabrication unit located at 5-Star MIDC, Kagal. The visit was organized under the Industry–Academia Connect initiative to provide students with practical exposure to steel fabrication technologies and industrial construction practices. During the visit, students observed the complete manufacturing workflow of PEB components, beginning with raw material handling and progressing through cutting, drilling, punching, fit-up and assembly, submerged arc welding, straightening, grinding, shot blasting, primer coating, painting, quality control, marking, packing, and dispatch. The fabrication processes were carried out in accordance with detailed technical drawings and industry standards. The students gained firsthand knowledge of various fabrication equipment such as shearing machines, radial drilling machines, CNC punching systems, pull-through welding machines, shot blasting units, and airless paint spraying systems. The visit also highlighted the importance of quality assurance measures, including dimensional checks, welding inspections, paint thickness testing, and bolt-hole alignment verification. Mr. Tanaji Patil, Steel Design Practitioner, provided valuable insights into steel structure design, fabrication techniques, industrial challenges, and practical considerations involved in executing large-scale PEB projects. The interactive discussions enabled students to connect classroom learning with real-world engineering and architectural practices.

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The site visit successfully bridged the gap between academic concepts and industrial applications, fostering industry-oriented thinking and strengthening students' understanding of steel construction systems.

Outcome of the activity:

1. Developed an understanding of the complete Pre-Engineered Building (PEB) fabrication process.
2. Gained practical exposure to steel manufacturing, fabrication, and quality control procedures.
3. Understood the role of technical drawings in guiding fabrication and assembly operations.
4. Learned about industrial machinery used for cutting, welding, drilling, blasting, coating, and finishing steel components.
5. Recognized the importance of quality assurance and safety measures in steel construction industries.
6. Enhanced knowledge of steel structural systems and their applications in architectural projects.
7. Bridged the gap between theoretical learning and practical industrial practices.
8. Strengthened industry-oriented design thinking and professional awareness.
9. Improved observation, analytical, and technical understanding of steel construction technology.
10. Encouraged students to integrate advanced steel construction techniques into future architectural design projects.



Site visit at 5-Star MIDC, Kagal

Er. Gouri Mhetar
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