



SHAHAJIRAO PATIL VIKAS PRATISHTHAN
S. B. PATIL COLLEGE OF ENGINEERING, INDAPUR, DIST: PUNE

ACA – R-49	Event Conducted Report	Academic Year: 2024-25
Rev : 00		Semester: II
Date: 01.07.2014		

Ref: SPVP/SBPCOE/MECH/2024-25/F12/06

Date:04/03/2025

To,

The Principal

SBPCOE,

Indapur.

Subject: Report of Industrial Visit at Auto Cluster Pune

Respected Sir,

The Department of Mechanical Engineering organized an industrial visit to the Auto Cluster Development & Research Institute, Pimpri-Chinchwad, Pune to provide students with practical exposure to advanced manufacturing technologies, research methodologies, and product development in the automotive industry. The visit was aimed at bridging the gap between theoretical concepts and industrial applications by allowing students to witness cutting-edge technologies and innovative engineering solutions.

Upon arrival, the students and faculty members were welcomed by the technical team of Auto Cluster, who provided a comprehensive overview of the facility. The Auto Cluster is a state-of-the-art research and development hub that supports the automotive and engineering industries through various services such as prototyping, testing, tooling, and training. The team explained the significance of such a facility in fostering innovation and technological advancements in India's growing automotive sector.

The visit commenced with an introduction to prototyping and product development, where students observed the processes involved in converting design concepts into physical models. The facility is equipped with 3D printing and rapid prototyping technologies, which allow manufacturers to develop and test components before mass production. The experts elaborated on the role of Computer-Aided Design (CAD) and Computer-Aided Manufacturing (CAM) in ensuring precision and efficiency in product development.

The next segment of the visit focused on testing and validation laboratories. The students witnessed various testing procedures used to assess the durability, strength, and performance of automotive components. The vibration testing, thermal testing, and impact analysis demonstrated how automotive parts are subjected to real-world conditions before they are approved for commercial use. This hands-on exposure helped students understand the importance of quality control and reliability in engineering.

The tour also included an introduction to advanced machining and tooling technologies. The facility houses CNC machines, laser cutting equipment, and high-precision tooling systems, which are crucial in modern manufacturing. Industry experts provided insights into automation,

robotics, and Industry 4.0 applications, emphasizing how these technologies are shaping the future of mechanical engineering and production systems.



A key highlight of the visit was the interaction with professionals and researchers working on industrial projects. The students had the opportunity to discuss real-world challenges in automotive engineering, material science, and manufacturing techniques. The exchange of ideas provided a broader perspective on industry trends, sustainable manufacturing practices, and the role of mechanical engineers in the rapidly evolving automotive landscape.



The visit to the Auto Cluster Development & Research Institute was an enriching experience for the students, as it reinforced their classroom learning with practical applications. It allowed them to explore new technologies, understand industrial workflows, and gain insights into research and innovation in the automotive sector. The Department of Mechanical Engineering expresses gratitude to the Auto Cluster authorities for their warm welcome and valuable knowledge-sharing session. This visit has undoubtedly contributed to the professional growth of students, inspiring them to pursue careers in advanced engineering and manufacturing.

Thanking you

Report Prepared By : Prof R.A.Deshmukh

Prof J.B.Mule
Visit Co ordinator

Dr. M.D.Jagtap
H.O.D

Prof V.S.Nalawade
Dean Academics

Dr. S.T. Shirkande
Principal