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**AMRUTA INSTITUTE OF ENGINEERING &
MANAGEMENT SCIENCES - BENGALURU**
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AIEMS
BENGALURU



VISVESVARAYA TECHNOLOGICAL UNIVERSITY



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DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

REPORT ON

INDUSTRIAL VISIT TO SIMPEL TECHLABS PVT. LTD. & XP Robotics

DATE OF VISIT

03-06-2026

FACULTY CO-ORDINATOR

DR. Kumar B I D

STUDENT CO-ORDINATOR

Hitesh R

ACKNOWLEDGEMENT

We express our sincere gratitude to the management of **Amruta Institute of Engineering and Management Studies (AIEMS), Bengaluru**, for providing us with the opportunity to undertake the Industrial Visit to **Simple AI Tech Labs Pvt. Ltd. and XP Robotics**. This visit served as an excellent platform to gain practical exposure to emerging technologies in the fields of Artificial Intelligence, Robotics, Computer Vision, and Industrial Automation.

We extend our heartfelt thanks to our Principal, Dean, Head of the Department, and faculty coordinators for their constant support, encouragement, and guidance in organizing this visit successfully.

We would also like to express our sincere appreciation to the management and technical team of **Simple AI Tech Labs Pvt. Ltd. and XP Robotics** for warmly welcoming us and providing detailed demonstrations of advanced robotic systems, AI-powered automation solutions, and real-time industrial applications. Their valuable insights helped us understand the practical implementation of concepts learned in the classroom.

We are grateful to all the engineers, trainers, and staff members who patiently explained the working principles, architecture, applications, and future scope of robotics and artificial intelligence technologies. Their expertise and interactive sessions greatly enhanced our learning experience.

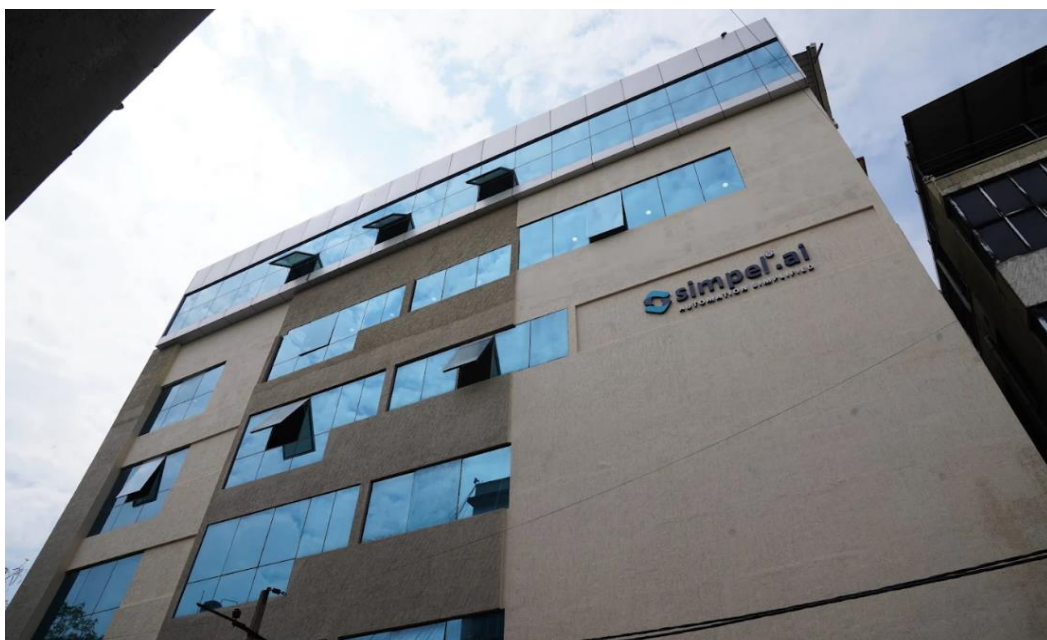
Finally, we thank all the students who actively participated in the visit and contributed to making it a meaningful and enriching educational experience. The knowledge and exposure gained through this industrial visit will be highly beneficial for our academic and professional growth.

COMPANY PROFILE

Simple AI Tech Labs Pvt. Ltd. is a technology-driven organization specializing in Artificial Intelligence, Robotics, Computer Vision, Automation, and Industry 4.0 solutions. The company focuses on developing intelligent systems that integrate advanced software technologies with robotic hardware to create innovative and practical solutions for industrial, educational, and research applications.

XP Robotics, functioning under Simple AI Tech Labs Pvt. Ltd., is dedicated to the design, development, and deployment of advanced robotic systems. The organization develops AI-powered robotic arms, computer vision-based automation systems, gesture recognition technologies, intelligent control mechanisms, and human-robot interaction solutions. By combining artificial intelligence with automation, the company aims to enhance productivity, efficiency, and safety across various industrial sectors.

The organization actively promotes innovation, research, and skill development by providing practical exposure to emerging technologies and real-world industrial applications. Through its commitment to technological advancement and industry-academia collaboration, Simple AI Tech Labs Pvt. Ltd. and XP Robotics continue to contribute significantly to the fields of Robotics and Artificial Intelligence.



INTRODUCTION

Industrial visits are an essential part of engineering education as they provide students with practical exposure to modern technologies, industrial practices, and real-world applications of concepts learned in the classroom. Such visits help bridge the gap between theoretical knowledge and industry requirements by enabling students to interact with professionals, observe advanced technologies, and understand current trends in the technological landscape.

With this objective, the Department of Information Science and Engineering (ISE), AIEMS, Bengaluru, organized an Industrial Visit to Simple AI Tech Labs Pvt. Ltd. and XP Robotics. The visit was aimed at providing students with an opportunity to gain firsthand knowledge of emerging technologies such as Artificial Intelligence, Robotics, Computer Vision, Automation, and Intelligent Control Systems.

During the visit, students were introduced to the fundamentals of robotics and explored the architecture and working principles of modern robotic systems. They observed advanced AI-powered robotic solutions, including gesture recognition systems, human-robot interaction technologies, six-axis robotic arms, real-time data processing frameworks, and robot control software. The technical demonstrations showcased how Artificial Intelligence and automation are integrated to develop intelligent systems capable of performing complex tasks efficiently and safely.

The visit offered valuable insights into current industrial practices and technological innovations, enhancing students' understanding of the practical applications of Artificial Intelligence and Robotics. It also provided an excellent platform for learning, interaction, and skill development, thereby preparing students for future academic, research, and professional endeavors in rapidly evolving technological domains.

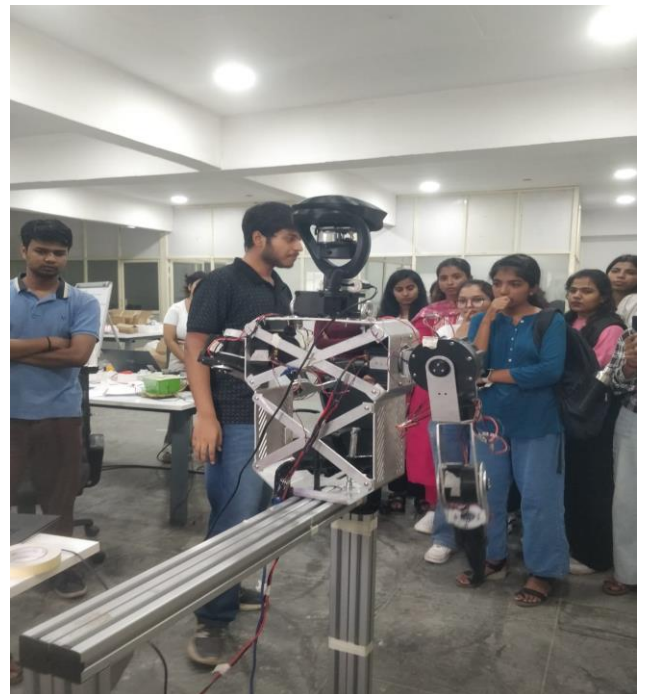
TECHNICAL DEMONSTRATIONS OBSERVED

1. Introduction to Robotics and Robot Components

The session began with an overview of robotics and the fundamental components of a robotic system. Students were introduced to the controller, actuators, sensors, power supply, structural frame, navigation technologies, and communication systems. The demonstration highlighted how these components work together to enable robots to perform tasks accurately and efficiently.

2. AI-Powered Interactive Robotic System

A live demonstration of an AI-powered interactive robotic system was conducted. The robot utilized computer vision and Artificial Intelligence algorithms to identify human presence, recognize gestures, and respond accordingly. Students observed how the robot could mimic human movements in real time and safely interact with people in its surrounding environment.



3. Six-Axis Robotic Arm Demonstration

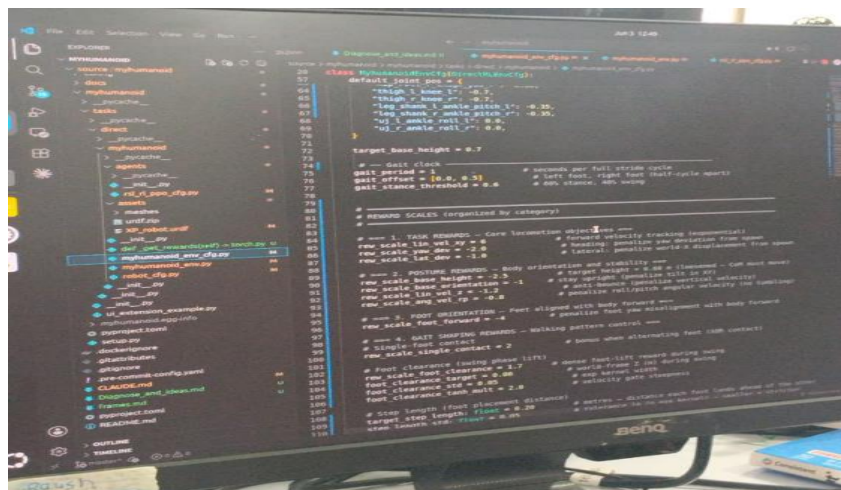
The technical team demonstrated the working of a six-axis robotic arm and explained the functionality of each axis. Students observed how the robotic arm performed rotational, vertical, and angular movements with high precision. The demonstration showcased the flexibility and versatility of robotic arms used in industrial automation and manufacturing processes.

4. Real-Time Data Processing and Control Architecture

Students were introduced to the data flow architecture of the robotic system. The demonstration explained how cameras and sensors collect environmental data, which is then transmitted to a central processing unit for analysis. Artificial Intelligence algorithms process the data and generate commands that are executed by the robot in real time.

5. Robot Control Software and Programming

The technical experts demonstrated the software environment used for robot control and automation. Students learned how Python-based programs are used to control robotic movements, process sensor inputs, and optimize performance. The session also provided insights into motion planning, locomotion control, and system configuration techniques used in modern robotic systems.



6. Applications of Robotics and Artificial Intelligence

The final session focused on the practical applications of robotics and AI across various sectors, including manufacturing, healthcare, agriculture, security, warehouse automation, education, and research. Students gained an understanding of how intelligent robotic systems are transforming industries and creating new opportunities for innovation and efficiency.

Overall, the technical demonstrations provided valuable exposure to emerging technologies and enabled students to understand the practical implementation of Artificial Intelligence and Robotics in real-world industrial environments.

IMPACT OF THE VISIT

The industrial visit to Simple AI Tech Labs Pvt. Ltd. and XP Robotics had a significant impact on the students by providing them with practical exposure to emerging technologies in the fields of Artificial Intelligence, Robotics, Computer Vision, and Automation. The visit helped bridge the gap between theoretical concepts learned in the classroom and their real-world industrial applications.

Through live demonstrations and interactions with industry professionals, students gained a deeper understanding of robotic systems, AI-powered automation, gesture recognition technologies, real-time data processing, and intelligent control mechanisms. The visit enhanced their technical knowledge and provided valuable insights into current industry practices and technological advancements.

The exposure to advanced robotic solutions inspired students to explore innovative applications of Artificial Intelligence and Robotics in solving real-world problems. It also strengthened their problem-solving abilities, analytical thinking, and understanding of software-hardware integration. Furthermore, the visit increased awareness of career opportunities and emerging trends in the fields of Robotics, Artificial Intelligence, Automation, and Industry 4.0. Students were encouraged to pursue research, skill development, and project-based learning in these rapidly growing domains.

Overall, the industrial visit proved to be a highly informative and enriching experience that enhanced students' technical competence, industry readiness, and motivation to engage in continuous learning and innovation.

PHOTOGRAPHS





HOD

DEAN ACADEMICS

PRINCIPAL