NEW HORIZON COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

INDUSTRIAL VISIT REPORT

Academic year: 2026-2027

Semester: V

Date: 05/11/26

Time: 9:30am - 12:30pm

Organization Visited: XP-Robotics

Introduction

The Department of Computer Science & Engineering arranged an educational visit to XP-Robotics on 5 November 2026. The session gave students an opportunity to explore humanoid robotics, understand the ideas behind robot operation, and see the ways robots are trained to carry out tasks. It also included direct interaction with robotic equipment and an overview of how its different parts function together as a complete system.

Objectives of the Visit

- To understand the basic principles involved in the functioning of humanoid robots.
- To get an idea of how humanoid robots are programmed and trained.
- To observe the contribution of mechanical, electronic, and control units within a robotic system.
- To receive practical exposure through demonstrations and interactive activities.

Visit Description

The XP-Robotics team opened the session with an introduction to humanoid robot design and operation. They described how the mechanical frame and electronic systems work in combination to produce different movements and execute instructions. A demonstration further explained the process of training a robot for particular tasks. Students also got the chance to handle and interact with the equipment, adding a practical dimension to classroom concepts. The technical team responded to questions from the students throughout the visit.

Technical Takeaways:

1. Got an overview of a humanoid robot's main structure and the basic concepts behind its functioning.

2. Understood the process through which robots are trained to carry out specific actions and movement patterns.

3. Learned how motors, joints, mechanical parts, and electronic controls work in coordination.

4. Noticed how separate robot components work together while the robot is in motion.

5. Took part in practical demonstrations and developed a better understanding of operating robotic systems.

6. Recognised the connection between engineering topics taught in class and their use in real robotic applications.

Learning Outcomes

The visit expanded our understanding of humanoid robots and highlighted the importance of training, coordinated hardware, and repeated testing in their operation. Seeing the equipment in action helped us connect classroom topics with the practical processes used to build, control, and operate robotic devices.

Conclusion

The XP-Robotics visit provided an interesting chance to explore humanoid robotics beyond regular classroom sessions. The explanations, live demonstrations, and hands-on activities helped us understand robot movement, training methods, and the integration of different systems. In all, the programme improved our awareness of robotics and how it is used in practical settings.

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Photographs



Figure 1: Students and faculty during the industrial visit.



Figure 2: Students attending the interactive session.

Industrial Visit Coordinator **HOD/Dean CSE**