



AKSHAYA INSTITUTE OF TECHNOLOGY

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

REPORT ON INDUSTRIAL AUTOMATION WORKSHOP

Organized by: Department of Electronics and Communication Engineering

Date: 08-12-2022 & 09-12-2022

Venue: DSP Laboratory

1. Introduction

The **Industrial Automation Workshop** was organized by **Department of Electronics and Communication Engineering** on **08-12-2022 & 09-12-2022** to provide students with practical exposure to automation technologies. The workshop aimed to enhance students' knowledge of **Programmable Logic Controllers (PLC), Industrial Sensors, and Robotics**.

2. Objectives of the Workshop

The key objectives of the workshop were:

- To introduce students to **industrial automation and its applications**.
- To provide hands-on experience with **PLC programming**.
- To familiarize students with **industrial sensors, actuators, and robotic automation**.
- To bridge the gap between **academic knowledge and industry requirements**.

3. Workshop Schedule

Day 1: Introduction to Automation & PLC Programming

- Basics of **Industrial Automation** and its importance.
- Overview of **PLC hardware, wiring, and architecture**.
- Hands-on **Ladder Logic programming** with timers and counters.

Day 2: Advanced PLC

- **Advanced PLC programming** concepts, including analog I/O handling.
- Introduction to **PLC programming** for real-time monitoring.
- Hands-on **PLC Programming** (alarms, trends, and reporting).

Day 3: Industrial Sensors, Robotics & IIoT

- Understanding various **industrial sensors** and their applications.
- Basics of **robotics and automation in industries**.
- Introduction to **Industrial Internet of Things (IIoT)**.

- Final hands-on project and troubleshooting session.

4. Participation & Hands-on Experience

A total of [Number] students from [Departments/Colleges] actively participated in the workshop. Students had the opportunity to work with real-world automation tools such as **PLC kits, industrial sensors, and robotic arms**.

5. Key Outcomes & Benefits

- Improved **technical knowledge** in industrial automation.
- Practical exposure to **PLC**.
- Understanding of **real-world automation applications** in industries.
- Enhanced **problem-solving and troubleshooting** skills.
- Increased **career opportunities** in automation and control engineering.

6. Conclusion & Feedback

The **Industrial Automation Workshop** was a great success, with positive feedback from students and faculty. The participants expressed keen interest in **further advanced training** on automation technologies. The workshop concluded with a **certificate distribution ceremony** for all attendees.

7. Acknowledgments

We extend our sincere gratitude to **Akshaya Institute of Technology, Electronics and Communication Department**, resource persons, and the organizing team for their efforts in making this workshop a valuable learning experience.

Resource Person(s): Prof. Yogananda B S

Organized by: ECE Dept, AIT TUMKUR