



## INDUSTRIAL VISIT at “ELECTROCUS SOLUTION”

**Date: 20 November 2024**

The Electronics & Communication Engineering students embarked on a one-day visit to “Electrocus Solution” Lucknow, for students embarking on professional education, the confines of a classroom alone cannot ensure comprehensive growth. To connect theoretical learning with practical experience, our department orchestrated a visit to one of the nation's leading organizations.

### **About Electrocus Solution**

Electrocus Solution is a software development company based in Lucknow, Uttar Pradesh, India. Established in 2020, the company specializes in software, application, and website development, as well as Internet of Things (IoT) device development.

#### **Services Offered:**

- **Software Development:** Creating custom software solutions tailored to client needs.
- **Application Development:** Developing mobile applications for platforms like Android and iOS.
- **Website Development:** Designing and building responsive websites.
- **IoT Device Development:** Engineering devices that connect to the Internet for data exchange.
- **Digital Marketing and SEO:** Enhancing online presence through strategic marketing and search engine optimization.

#### **Training and Internship Programs:**

Electrocus Solution offers various training and internship programs aimed at skill development:

- **Summer and Winter Training:** Programs designed for students to gain practical experience.
- **Industrial Training:** Focused on preparing students for industry demands.
- **Job-Oriented Training:** Tailored to equip students with skills relevant to current job markets.
- **Internships:** Opportunities for hands-on experience in IT development, hardware development, and IoT.

## **Session-1 at Conference Hall**

### **1. Device Development**

The first technical session focused on device development, where students were introduced to the complete product development lifecycle. Key highlights of this session included:

- Introduction to embedded systems and microcontrollers.
- Hands-on demonstration of IoT-based devices.
- Discussion on sensor integration and circuit prototyping.
- Overview of firmware development and testing procedures.

### **2. PLC Programming**

The second session was dedicated to PLC (Programmable Logic Controllers), which play a vital role in industrial automation. The students learned:

- Basics of PLC and its significance in industrial automation.
- Hands-on programming using ladder logic.
- Real-world applications of PLC in automation industries.
- Simulation of a small automation process using PLC software.

### **3. PCB Design and Manufacturing**

The final technical session focused on PCB design and manufacturing. Students explored:

- The importance of PCB in electronic device development.
- Hands-on PCB designing using software like Eagle or KiCAD.
- Understanding PCB fabrication and component placement.
- Prototyping and testing of designed circuits.

### **Interaction with Industry Experts**

Throughout the visit, students had the opportunity to interact with industry professionals who shared their experiences and insights about current industry trends, challenges, and opportunities in the field of electronics and automation.

### **Key Takeaways**

- Gained practical knowledge of embedded systems and device development.
- Understood the significance and working of PLCs in automation.
- Learned the process of PCB designing and prototyping.
- Enhanced problem-solving and hands-on skills through interactive workshops.

## **Session-2 Sections Visit**

### **1. 3D Printing**

The first technical session focused on 3D printing technology and its role in prototyping. Key highlights included:

- Introduction to 3D printing technology and its applications.
- Demonstration of 3D printer operations and material selection.
- Hands-on experience in designing a simple 3D model.
- Discussion on industry use cases and benefits of rapid prototyping.

### **2. PLC Programming**

The second session was dedicated to PLC (Programmable Logic Controllers), which play a vital role in industrial automation. The students learned:

- Basics of PLC and its significance in industrial automation.
- Hands-on programming using ladder logic.
- Real-world applications of PLC in automation industries.
- Simulation of a small automation process using PLC software.

### **3. PCB Design and Hands-on with Proteus Software**

The final technical session focused on PCB design, specifically using Proteus software. Students explored:

- The importance of PCB in electronic device development.
- Hands-on PCB designing using Proteus software.
- Understanding PCB fabrication and component placement.
- Prototyping and testing of designed circuits using simulation.

### **Key Takeaways**

- Gained practical knowledge of embedded systems, 3D printing, and device development.
- Understood the significance and working of PLCs in automation.
- Learned the process of PCB designing and prototyping using Proteus software.
- Enhanced problem-solving and hands-on skills through interactive workshops.

### **Conclusion**

The industrial visit to Electrocus Solution was highly informative and enriching. The practical exposure provided a strong foundation in 3D printing, device development, PLC programming, and PCB design. Students left with a deeper understanding of industry practices and an appreciation for real-world engineering applications.

## EVENT PICTURES



**Students photograph with Mr. Ankur Shukla(HOD ECE) with Faculty & Staff Members**







**Certificate Distribution**

