

# WORKSHOP REPORT

Technology plays a great role in everyone's life. We being an engineer its necessary for us to learn and enhance our knowledge on various new technologies. RCEW provides great amenities for its students so that they can actively collaborate with the outside world.



Recently a seminar on “Industrial Automation” was organised in the Ashoka hall on **Friday, 24<sup>th</sup> March** by the **ECE Department** of the institute. The seminar was conducted by the **sofcon group**.

## SOURCE PERSONS:-

SOFCON is professionally run by technocrats having decades of experience in Training / process / manufacturing industry. Their rich experience of over 02 decades in providing automation solutions to Indian & overseas industries & strong presence in rich industrial belt of **North, Western & Central India** has made them a leading training Service Provider.

**Sofcon India Pvt Ltd (Training Wing of Sofcon Group)** imparts practical Training to Fresh Engineers / Working Professionals / Technicians on:



- **PLC** : Allen Bradley, Siemens, Modicon, Mitsubishi, GE Fanuc, Omron...
- **SCADA/HMI** : Wonderware, RS View, Win CC, Intellution, Panel View
- **Variable Frequency Drives** : Power Flux, Altivar, Danfoss, ABB, Siemens
- Motion Control, **Stepper/Servo Drives**
- **DCS**: ABB AC 700F, Hollysys SM 202
- Process Instrumentation, Panel Designing & **AutoCad**
- Industrial Networking (**Ethernet, ControlNet, DeviceNet, Modbus, Profibus, Fieldbus**)
- **Embedded Systems Training: 8051 Micro Controller, Embedded C, Hardware Interfacing**
- **Assembly Language** Programming, **AVR, Robotics** Programming & Projects
- **Summer / Winter / Project Training** with project Guidance for II/III/Final year Engineering/Diploma Students
- **Customized Training** for plants/industries as per customer requirement
- Soft skill development & Interview Preparation.

## OVERVIEW:-

The workshop was based on PLC (Programmable Logic Controller) and SCADA (Supervisory Control and Data Acquisition). They explained how the advantages of PLC

dominated over the disadvantages of Microcontrollers in the terms of numbers of inputs and outputs, memory, networking etc.



The workshop started with the brief introduction of Industrial Automation. They told us that how automation encompasses the whole system of industries by providing efficient technology to produce more products at a greater speed at the edge of low cost. And which encourages competition in the market and also the need of more efficient technologies.

They also described about of various applications of automation and also of various types of components such as relays, switches etc.

They briefed the description of PLC. They told us that PLC is operated similar to any other ordinary controller but it is different from others as it is controlled through software.

It looks at states of Inputs. Based on these states, the PLC makes decisions, and then commands output states. The instructions that tell the output devices what to do base on the conditions returned by the input devices are written in programs that are stored and run by the PLC. It consist o five major parts- Input/output modules, Power Supply, Programming device and CPU. They explained more about automation by giving some examples through videos that were – biscuit manufacturing, bottle packing, dairy products etc.

Some information regarding SCADA like its characteristics- Analogue inputs for live monitoring, Control relays (SBO points) for remote access and control, Graphical web interface, alarm descriptions, Industrial-grade durability.

The leading manufacturers of SCADA and PLC are- – Wonder ware (Intouch), Allen Bradley (RS view 32), Siemens (WinCC). The programming for PLC was practiced by the students and working on SCADA software was also taught.

## **CONCLUSION:-**

The seminar was of great use for the students, it helped them figure out the exact use and meaning of industrial automation in today's world.

It also helped them to learn about PLC and also how to work on SCADA.

The seminar was a great success for the department.

