

# Industrial Automation PLC & SCADA Course Content

The main objective of this WORKSHOP is to make the aspiring engineers acquainted with the conceptual as well as practical knowledge of the Industrial Automation & latest technologies being used to achieve industrial automation. The idea of organizing this workshop is to inculcate the basic fundamentals of automation in the students and provide them with a platform to work on, In The Near Future.

## **Session 1: Presentation on Recent Trends in Industrial Automation & PLC-SCADA**

- Introduction To Automation
- Why We Need Automation
- Where Automation?
- Evolution In Industrial Automation (A Brief History)
- Different Type Of Industrial Control Mechanisms)
- Introduction To PLCs
- PLC Advantages Over Microcontrollers
- Area Of Applications
- DATA Flow During Automation
- Motor Drives Introduction & Their Need
- Sensors Introduction & Their Need
- HMI Introduction & Its Need
- SCADA Introduction & Its Need

## **Session 2: Detail study of PLC & SCADA**

- PLC
- SCADA

## **Session 3: PLC I/Os Basics, Burning & Interfacing Concepts**

- Allen Bradley & Rockwell Automation`s Details
- Brief Description To Input/ Output Pins Of Micrologix-1000
- Ladder Diagram Basics
- introduction To RSLogix
- Downloading A Ladder Program In PLC Using RSLinx.
- How To Take Input From Panel
- How To Give Output To Pane
- Running First PLC Application

## **Session 4: Hands on PLC Training Kit**

- Participant will perform hands on PLC training Kit.