

AUTOMATION COURSE

- ❖ P.L.C.(Programmable Logic Controller)
- ❖ V.F.D.(Variable Frequency Drive)
- ❖ H.M.I.(Human Machine Interface)
- ❖ S.C.A.D.A.
- ❖ Designing of Control & Power Panels
- ❖ Knowledge of all Electrical/Electronic

Components

Programmable Logic Controller

- ❖ Schneider (Zelio Soft)
- ❖ Schneider (M-340)
- ❖ Siemens (Logo Soft)
- ❖ Siemens (S7-200)

HUMAN MACHINE INTERFACE

- ❖ Siemens (TD400c)

VARIABLE FREQUENCY DRIVE

- ❖ Siemens (V-20)

SCADA

- ❖ Siemens (Wincc Flexible)

Designing of Control Panels

- ❖ P.L.C. Control Panel
- ❖ V.F.D. Control Panel
- ❖ M.C.C. Motor Control Center
- ❖ P.C.C. Power Control Center
- ❖ Power Factor Control Panel+

Syllabus for P.L.C

- ❖ Introduction to Industrial Automation, different parts and types of
- ❖ Industrial automation.
- ❖ Introduction to PLC hardware, role of PLC in Industrial automation.

- ❖ Introduction to field devices attached to PLC.
- ❖ PLC Fundamentals.
- ❖ Detail Information about PLC
- ❖ Power supply
- ❖ CPU
- ❖ I/O modules
- ❖ Communication Bus
- ❖ Various ranges available in PLCs.
- ❖ Types of inputs and outputs.
- ❖ Source sink concept in PLC.
- ❖ Concept of flags.
- ❖ Scan Cycle execution.
- ❖ Introduction to programming software.
- ❖ Addressing concept.
- ❖ Programming instructions arithmetic and logical
- ❖ Load/AND/OR/OUT/READ/WRITE
- ❖ MOVE block applications
- ❖ Compare/Add/Sub/And/or blocks
- ❖ Advanced Instructions
- ❖ Leading edge/trailing edge instruction
- ❖ Timer Blocks Programming
- ❖ Set/reset Function
- ❖ Counter Block Programming
- ❖ Upload, download, Monitoring of programs
- ❖ Standard procedure to be followed in wiring/writing ladder etc.

Hands on experience on writing programs

- ❖ Motor control
- ❖ Slide control
- ❖ Timer applications
- ❖ Lighting pattern
- ❖ Counter applications
- ❖ Milling machine programming
- ❖ Paint Plant application
- ❖ Bottling Plant application
- ❖ Auto Drilling application
- ❖ Car parking application

- ❖ Sorting of objects application
- ❖ Traffic light control
- ❖ School bell application
- ❖ Washing machine application
- ❖ Stone crusher applications
- ❖ Oven Control application
- ❖ Powder application
- ❖ Room Automation
- ❖ Pump application
- ❖ K.B.C application
- ❖ Over Flow tank application
- ❖ Passenger Lift application
- ❖ RO filter application
- ❖ Car level parking
- ❖ Conveyer applications
- ❖ Introduction to HMI
- ❖ Practical applications of HMI
- ❖ Variable Frequency Drive
- ❖ Speed control by digital input
- ❖ Speed control by analog input
- ❖ Knowledge to all parameters of V.F.D.