Introduction to Programmable Logic Controllers

This one-day training course is designed to give a superb fundamental in Programmable Logic Controllers (PLC). The course objective is to provide the solid and unbiased information to teach you everything you need to know to get started in PLCs. This course is not geared towards any manufacturer and does not require any previous knowledge of PLCs.

Course Outline

Section 1 – Introduction
- What is PLC?
- Brief History

Section 2 – Theory of Operation
- Simplified PLC System
- Basic PLC System Hardware
- PLC System Operation

Section 3 – Logic Operations
- Basic Logic Operations
- Relay v/s PLC
  - Typical Relay Schematic
  - Ladder Symbology
  - Advantage of PLC System
- Boolean Logic
  - AND Gate
  - OR Gate
  - Inclusive / Exclusive OR Gate
  - NOT Gate

Section 4 – Wiring
- Input Wiring
  - DC Inputs - Sinking and Sourcing
  - AC Inputs
- Output Wiring
  - Transistor Outputs
  - Relay Outputs

Section 5 – Programming A PLC System
- Basic Programming Instructions
  - Normally Open / Close Contacts
  - Latch / Unletch Operations
  - Timers
  - Counters
  - Numerical Operations
  - Comparison Statements
  - One Shot
  - Moving Data
- Using Resistors
- Good Programming Habits

Section 6 – Design & Installation of A PLC System
- Sizing & Selection
  - CPU & Memory Sizing
  - Estimating number of I/O Modules Required
- PLC Selection Check List & Specifications
- Designing a PLC Panel
  - Layout
  - Panel Internal Wiring
- Good Installation Practice
Who Should Attend?

- Engineers
- Technicians
- Electricians
- Maintenance Personnel
- Operators
- Managers & Supervisors who need a general overview of the PLC system.

Contact Us to bring this workshop to you or for more information

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