

PROGRAMMABLE LOGIC CONTROLLER MAINTENANCE

3 DAYS

Programmable logic controllers are commonplace in all areas of industry. Accordingly it becomes ever more important that maintenance personnel should be able to carry out effective maintenance tasks on these systems.

PARTICIPANTS

This course will be invaluable to anyone involved in the maintenance of control systems which incorporate PLCs. Participants should ideally have an understanding of electrical principles.

COURSE PRESENTATION

The emphasis throughout is on useful, practical skills and their application in the context of common industrial situations. Much of the course is given over to 'hands-on' experience and the maintenance skills that are required when working with PLCs. Comprehensive course notes are provided. The various main PLC manufacturers are represented on the course - Allen Bradley, Siemens, Mitsubishi and others. Candidates gain experience of each of these types, and this generic knowledge prepares them to deal with any type of PLC in the future (providing that sufficient help or further training is provided).

COURSE OBJECTIVES

On completion of the course, participants will be able to:

- Understand the safety issues involved with PLCs and appreciate the need for safe working practices
- Understand how PLCs are incorporated into modern industrial control systems, and the typical applications they are put to
- Understand the logic functions performed by basic PLC instructions
- Understand the methods of addressing inputs and outputs of PLCs
- Understand the various methods of transmitting signals to and from PLCs
- Identify the range of I/O modules available
- Understand the use of battery back-up and ROM
- Interpret ladder diagrams, statement lists and control system flowcharts
- Use hand-held programmers and personal computers to interrogate PLCs
- Monitor I/O lines to determine correct operation
- Safely modify program parameters to solve process problems
- Safely use I/O forces as an aid to fault-finding
- Carry out fault-finding on PLC-controlled systems
- Use systematic methods of fault-finding using specially designed flowcharts
- Back-up programs and restore them back to PLCs.