Practical

INDUSTRIAL PROGRAMMING using 61131-3 for Programmable Logic Controllers (PLCs)

WHAT YOU WILL LEARN:

- To confidently work with the generic standard IEC 61131-3 for industrial programming
- To effectively utilize IsaGraf programming software to program PLCs
- To understand the concepts and common elements concerning the IEC 61131-3 programming model
- To program using languages such as: structured text, function blocks, ladder diagrams, instruction lists & sequential function charts
- To troubleshoot sequencing problems
- To boost productivity and enhance software quality

WHO SHOULD ATTEND:

For anyone who needs to program Programmable Logic Controllers (PLCs) using the standard developed by the International Electrotechnical Commission (IEC) which is now being used worldwide by most major PLC manufacturers.
PLCs have become part of the backbone of industrial automation. The International Electrotechnical Commission (IEC) has developed a standard set of programming languages for industrial PLCs. The success of these languages can be measured by the large number of major PLC manufacturers who are developing products that are 61131-3 compliant. IEC 61131-3 is becoming the standard of choice in many industries, and will boost productivity and enhance software quality. If you master the subject today your programming knowledge will be applicable across brands well into the future. This knowledge is vital for personal career development.

The aim of this intensive two-day course is to go beyond the basic concepts and introduce you to the practical techniques and applications of 61131-3. We cut across apparent differences wherever PLCs are used and introduce standards that are widely applicable.

If you ever need to program PLCs or just understand more about their capabilities, then this course is for you. The course is pitched at an intermediate level suitable for anyone with some experience with PLCs. If you are a trainee engineer, graduate, control systems engineer, technician, or senior operator you will gain essential knowledge that will significantly enhance existing knowledge of PLCs.

## WORKSHOP OBJECTIVES

At the completion of this course participants will be able to:

- Confidently work with this emerging generic standard for industrial programming
- Effectively utilize typical industrial programming software to program PLCs
- Explain important concepts and common elements concerning the IEC 61131-3 programming model
- Program in the following languages:
  - Structured text
  - Function blocks
  - Ladder diagrams
  - Instruction lists
  - Sequential function charts
- Troubleshoot sequencing problems by differentiating application issues from sequencing issues

## PRACTICAL SESSIONS

PLCs have become an integral part of industrial automation and it is for this reason that there are 5 practical exercise sessions in this workshop. This is to give you the vital hands-on experience you need to confidently work with 61131-3 in your workplace.