

Perform PLC Programming (Blended) MF-AUT-301E-1

Code: PLC

Duration: 40 Hours

Synopsis:

Programmable Logic Controller (PLC) is the heart of all automated control systems. With a controlled application program in running, the PLC monitors the input status of the process and controls the output status based on a pre-determined requirement. The PLC is used to control a simple and repetitive task. It can also be connected to other controllers to control a more complex task.

This module is developed to enable learners to acquire knowledge and skills in performing Programmable Logic Controller that includes selecting appropriate control devices, integrating of logic controls, writing software program for the automated machines.

Course Objective:

On completion of this module, learners will be able to perform Programmable Logic Controller on automated control system.

Course Outline:

The knowledge and skills covered in this module include:

Skills:

- Select appropriate control devices for the automated machine
- Integrate the logic control with the automated machine
- Write software program for the automated machine
- Test the controlled system in accordance to the user requirement
- Standardise the control program

Knowledge:

- Advantages of PLC over the traditional control system
- Purpose of selected tools in carrying out the tasks
- Purpose of the basic interfacing unit of PLC
- Functions of I/O devices of a PLC system
- The importance of meeting the user requirement and machine specification
- The function and specification of PLC interface units are understood
- Types of programming language and the programming methodologies
- Function of various electrical protective devices
- Importance of sizing of cables to meet the safety requirement
- The essentials of completed document standardisation

For Whom:

Suitable for Line or Team Leaders, Technicians, Supervisors and Engineers.

Entry Requirements:

Participants are assumed to:

- Have completed 'O' Level or equivalent; or
- Have the ability of:
 - Basic knowledge of the Singapore Workplace Safety and Health requirements;
 - Follow written and oral work instructions;
 - Listen, read and write English at a proficiency level equivalent to the Employability Skills System (ESS) level 5;
 - Manipulate numbers at a proficiency level equivalent to Employability Skills System (ESS) level 5.

Training Medium:

This module is conducted in English.

Training Methodology:

This module is delivered through e-learning, lectures, group activities and demonstration.

Assessment Methodology:

Practical and oral/written assessments are conducted at the end of the training module.

Certification:

An individual who completes a module will be awarded a Statement of Attainment (SOA).