PLC and HMI: Mitsubishi's MELSEC IQ-R series & GOT 2000

Course Overview

Comprehensive understanding of Mitsubishi's MELSEC IQ-R series PLC and GOT 2000 Series HMI. Covers iQ-R series PLC compatibility, working with GOT 2000 HMI hardware, and essential screen designing skills using GT Designer software.

Prerequisites

➢ Required to have a basic understanding of number systems (Binary, Hexadecimal, BCD) and Knowledge of computer applications.
➢ Fundamental knowledge of Electrical and Electronics.

Objective

Utilize MELSEC IQ-R PLC and GOT 2000 HMI for factory automation. Gain knowledge and skills to optimize processes, improve productivity, and enable seamless communication between control systems and operators. Learn advanced programming and troubleshooting for enhanced automation functionality.

Target Group

➢ Engineering students specializing in automation and control systems.
➢ Professionals working in roles such as trainers, planners, implementers, programmers, and operators
➢ Individuals involved in service, commissioning, engineering, and maintenance roles.

Content

➢ Introduction to iQ-R PLC
➢ PLC Programming using GX Works 3
➢ Basic programming concepts for logical operations like AND, OR, & X-OR.
➢ Concept of timers & counters in PLC programming
➢ Programming using Built-in library functions & Function Blocks,
➢ Introduction to the range of intelligent function modules and their connections
➢ Application of buffer memory & its configuration, and module library.
➢ Creating and setting data labels
➢ Maintenance & Security Functions Covering data logging and analysis capabilities,
➢ Implementing security key protection

➢ Understanding event log history for maintenance and security purposes.
➢ Analog and intelligent module programming
➢ Concept of module slot change and its reflection in I/O.
➢ HMI programming using GT Designer software
➢ Configuration of communication with the GOT
➢ OS selection and installation in HMI
➢ Creating different types of screens with objects such as switches, lamps,
➢ Use of text and numerical displays, graphs in HMI
➢ configuring user alarms & alarm displays in HMI
➢ Utilizing comment features such as comments, comment groups, and comment management.

Duration

➢ 15 Hours