Course Name: INDUSTRIAL PLC WITH TIA PORTAL

Short description

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with all automation devices – controller, HMI and drives. The course provides you with the knowledge to quickly and easily configure machine and plant-specific HMI tasks using the SIMATIC WinCC software based on the TIA Portal. You will learn the possibilities of the configuration and the advanced programming of a SIMATIC S7-1500 and S7-1200 automation system with the "TIA Portal" engineering platform.

Objectives

On completion of this course the participant will be able to:-
- Identify the components and performance characteristics of the SIMATIC S7-1200 PLC, S7-1500 PLC.
- Install a PLC system, including the HMI and communication cabling.
- Perform a commissioning of TIA components you can deepen your theoretical knowledge with numerous practical exercises on a TIA system model.

Target Group

- Engineering students.
- Trainers, Planners/implementers, Programmers & Operators.
- Service personnel, Commissioning engineers, Engineering personnel, Maintenance personnel.

Content

- Overview and significant performance characteristics of the SIMATIC-S7 system family.
- Use STEP 7 professional V13 & V15 (TIA PORTAL) to create a new development project.
- Identify important features of the automation languages LAD, FBD, SCL, STL, and S7 GRAPH.
- Possible application of various block types (function (FC), function block (FB), organization block (OB), data block (DB).
- Binary and Digital Operations including IEC Timers and Counters, Analogue value processing.
- Advanced programming possibilities of SIMATIC S7-1200 & S7-1500.
- Troubleshooting and alarms with an HMI device (Touch panel).
- Graphic image creation for operator control and monitoring.
- Make graphic object dynamic through programming for real time monitoring with an HMI.
- Built a multiuser system (client/server architectures).
- Program documenting, saving and archiving.
- Solve comprehensive programming tasks.

Prerequisites

- Technical understanding.
- Basic knowledge on digital electronics and computer networking.
- A basic understanding of electrical components such as relay, switches and solenoids would also be very useful.
- The ability to use an MS Windows PC, keyboard and mouse.

Note

In this course you will work with SIMATIC S7-1500, S7-1200, HMI PANEL and software SIMATIC STEP 7 based on TIA portal.

Type

Face-to-face training.

Duration

36 hrs.

Language

English.

Course Fee

5500/- + tax