SIEMENS

Online Training - SIMATIC S7-1200 with TIA Portal Course (AS-OL-1200)

Objectives

To make participants aware and familiar with:
- SIMATIC S7-1200 automation system
- TIA portal V16 as engineering framework
- Basic programming concepts in TIA
- Digitalization topics in TIA Portal along with use cases

Target Group

- Service engineers
- Programmers
- Commissioning engineers

Content

Hardware
- System overview of SIMATIC controller families
- SIMATIC S7-1200 family in detail
- Hardware configuration of S7-1200 controller in TIA
- S7-1200 module spectrum

TIA portal
- TIA portal products and scope
- Digitalization in planning phase: TIA selection tool*
- License management for TIA
- Overview of framework
- PLM integration with TIA Portal – explanation* **new**

Software and Programming concepts
- Working with PLC tags
- Bit logic instructions
- Concept of RLO
- Programming rules
- Elementary data types
- Standardization in programming as a basis for enabling digitalization* **new**
- Arithmetic and logic operations
- Working with watch tables
- Analog value processing
- Linear v/s structured programming approach
- Effective programming using function and function blocks
- Use and need of data blocks
- Types of data blocks
- Concept of Organization blocks
- SIMATIC security services for machine and plant security* **New**

Communication - Explanation and demo only
- SINAMICS G120 drive integration with S7-1200 controller on Profinet(PN)/Profibus DP protocol
- S7-1200 controller with remote station on Profinet(PN)/Profibus DP protocol
- Introduction to cloud connectivity using S7-1200 – explanation* **new**

Troubleshooting and diagnostic topics
- Significance of LED indication on different modules
- Diagnosis using diagnostic buffer
- Cross-references, call structure, assignment list, dependency structure
- Memory resource allotment
- Memory overlap identification
- Trace configuration tool

HANDS ON
- Application example-based exercises after each topic

Prerequisites

- Basic know how about automation technology is must
- Basic knowledge of electrical technology and digital electronics is essential

Note

- SOFTWARE VERSION: STEP7 TIA v16 Basic

TECHNICAL REQUIREMENT:

- A computer or laptop with Windows 7/10 OS and a stable internet connection. (We recommend a data transfer rate of 16 Mbit/s.)
- Microsoft Teams platform for technical presentations and demo. (We recommend using desktop app for best possible use of all functions).
- Goggle Chrome internet browser for assessing virtual lab solution for hands-on

Type

Online-Training

Duration

5 days

Language

en

Fee

30,000 INR
18% GST additional on Course fee

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