SIEMENS

Blended Learning - SIMATIC S7-1500 with TIA Portal (AS-OL1500B)

Objectives

After this learning journey you will be able to ...
- operate the "TIA Portal" engineering platform safely
- understand the basics of the interaction of TIA components
- solve simple programming tasks with elementary STEP 7 instructions
- structure small SIMATIC S7 programs with the help of OBs, FCs and FBs
- apply standards and work with them
- solve simple mathematical programming tasks with STEP 7 instructions
- commission simple/small machines or expand them independently
- test programs and fix simple errors
- configure a distributed I/O via PROFINET

Target Group

- Maintenance engineers
- Service engineers
- Programmers
- Commissioning engineers

Content

The Learning journey of blended training SIMATIC S7-
1500 course consists of:
- 8 live modules (instructor-led)
- 14 self-study modules (SITRAIN Access)

A learning membership to work through the self-learning modules (SITRAIN
access content) is included for 1 year.
- System Overview
- Devices & Networks, Hardware Configuration
- Basics of PLC
- Data Types, Programming Editors (LAD, FBD, STL)
- Addressing concept, Memory areas in PLC
- PLC Tags
- Binary Operations (NO, NC, Set, Reset)
- Program Blocks, OBs (Properties, Protection)
- Functions & Function Blocks
- Data Blocks
- Instructions (Timer, Counter)
- Analog value processing
- Remote IO Device communication over Profinet
- TIA Selection Tool
- Diagnostics using Web Server in PLC
- Diagnostics using Trace
- Maintenance Topics (Cross referencing, Upload, Program info etc.)

HANDS ON:
- Application example-based exercises after each topic using virtual cloud lab
- Individual labs will be allotted to each participant.

Prerequisites

- Basic knowledge of digital electronics and automation technology is essential

Note

TECHNICAL REQUIREMENT(for instructor-led live sessions):
- 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

45 hours

Language

en