SIEMENS

TIA Portal Safety Sustaining (US-PTSFTP2A)

Type

Instructor-led Learning

Duration and Continuing Education Units (CEU)

2 Days
1.3 CEUs

Target Group

- Maintenance

Short Description

This course introduces the student to a Siemens Distributed Safety PLC application. Participants build skills on commissioning, troubleshooting, and upgrading an automation safety system. Functional safety principles, sensor-actuator connections, and device configuration of the S7-1500F and ET 200SP are covered, as well as restoring the system and programming the safety blocks. The course format is a combination of instruction and hands-on exercises. A realistic model is used for demonstrations and student exercises. Exercises allow students to practice tasks such as testing, debugging, and using diagnostic tools.

Objectives

- Describe global and US Machine Safety Standards
- Identify TIA Portal safety components
- Remove and replace S7-1500 and ET200SP safety components
- Identify safety components using the wiring diagrams of the S7-1500 and ET200SP
- Configure S7-1500 safety component hardware
- Diagnose S7-1500 safety component LEDs
- Address S7-1500 safety components
- Understand the structure of an S7-1500 safety program
- Troubleshot Hardware Configuration to identify system faults
- Use Watch Tables to monitor I/O modules
- Troubleshoot the status of program logic

Content

- Overview Machine Safety Standards
- Product Overview
- Functional Safety Integrated Principle
- Sensor-actuator connection
- Device Configuration
- Configuring and wiring the S7-1500F and ET200SP
- System Restore and Safety Blocks Programming
- Testing and Diagnostics
- Fail-safe communication

Mandatory Prerequisites

TIA Portal Programming 1: US-PTTIAP1A

OR

SIMATIC Service 1 in the TIA Portal: TIA-SERV1 AND SIMATIC Service 2 in the TIA Portal: TIA-SERV2

Language

English