SIEMENS

Siemens TIA Portal Certified Service Technician Level 1

General Information

Course Code	SCT-PTSVCR2A
Global Code	NA
Length	5 Days
CEUs	3.3

Audience

This course is for SIMATIC S7-1500 PLC users with basic engineering experience in the design and sustaining of SIMATIC automation systems and their application programs.

Prerequisites

- TIA Portal Service 1 (Face to Face or Virtual)
AND
- TIA Portal Service 2

Profile

Automation engineering and technology advancement towards Totally Integrated Automation solutions no longer exclusively include programmable logic controllers (PLCs). Today it also includes industrial communication, operator control, monitoring, security technology, and the connection of drives. Skills from SIMATIC service basic training will be refreshed and consolidated over four days. On the fifth day, one may take the examination. The test is on day five to qualify as a level one, Siemens certified SIMATIC Technician.

The practical assessment includes the commissioning of the hardware of a PLC, a simple PLC program and the components of Totally Integrated Automation. After passing the examination successfully, the newly certified technician will receive a certificate proving level one specialist knowledge.

Objectives

Upon completion of this course, the student shall be able to:

- Troubleshoot an automation system consisting of SIMATIC S7-1500 PLC, distributed I/O, Touch Panel, drive, and a conveyor belt model.
- Diagnose hardware and software faults/errors
- Troubleshoot errors/faults in PLCs and distributed I/O
- Configure and assign parameters to modules with diagnostics
- Service digital and analog signal processing
- Put certain blocks into operation and expand them

- Commission distributed I/O
- Configure HMI screens
- Configure messages
- Commission a drive
- Successfully complete the certification test

Topics

1. SIMATIC controller servicing
   a. Systematic troubleshooting in an automation system
   b. Distinguishing hardware and software faults/errors
   c. Troubleshooting errors/faults in programmable logic controllers and the distributed I/O
   d. Hardware and software diagnostics functions
   e. Configuring and assigning parameters to modules with diagnostics
   f. Digital and analog signal processing
   g. Putting certain blocks into operation and expanding them
2. Industrial communication: Commission distributed I/O
3. Human Machine Interface (HMI)
   a. Configuration of HMI screens
   b. Configuring messages
4. Motion control: Commission a drive
5. Deeper understanding of contents through practical exercises on the SIMATIC S7-1500 system model.
6. Complete the Siemens TIA Portal Certified Service Technician Level 1 test.