SIEMENS

Siemens Certified Programmer in TIA Portal (CPT-FAP)

Korte beschrijving

You will deepen your theoretical knowledge with numerous practical exercises on a SIMATIC plant model on which you also take the examination. This consists of a SIMATIC S7-1500 automation system, ET 200SP distributed I/O, Touchpanel TP700, drive SINAMICS G120 and a belt model.

Doelen

The Zentralverband Elektrotechnik- und Elektronikindustrie e.V. (ZVEI) (German Electrical and Electronic Manufacturers' Association) has defined guidelines for further vocational training. Due to the continuous further development of automation engineering and technology towards Totally Integrated Automation solutions involving not only programmable logic controllers (PLCs), but also industrial communication, operator control and monitoring, security technology and the connection of drives, the course to qualify as a PLC technician had to be revised and expanded compared with the previous course. Within the framework of these new guidelines, we offer the course to qualify as an automation technician for configuration according to ZVEI.
This course consists of two days of theory as the ideal preparation for a 5 hour examination on the third day! Your skills from SIMATIC programming training (courses TIA-PRO1 - TIA-PRO3) will be refreshed and consolidated. The practical assessment involves the creation and commissioning of a complex PLC program with components of Totally Integrated Automation from SIEMENS. After passing the examination successfully you will receive a recognized certificate that attests your specialist knowledge.

Doelgroep

Programmers
Commissioning engineers
Engineering personnel

Inhoud

Configuration of a SIMATIC controller with the SIMATIC STEP 7 V20 software in TIA Portal.
- Applicative programming in a complex automation system
- Programs for an automation system consisting of a standard PLC with distributed I/O, standard HMI device and bus system
- Programming in compliance with IEC
- Standardized user blocks
- Creation and application of complex data structures
- Variables of a composite and complex data type
- System blocks
- Indirect addressing of complex data structures and parameters
Industrial communication
- Error diagnostics in a PROFINET IO system with an HMI device
- Configuration of CPU-CPU communication via Industrial Ethernet
Human Machine Interface
- Alternative message methods
- Consistent transfer of entire data records (recipe management)
- System error diagnostics with an HMI device
Motion control
- Connection of drives
Functional safety technology
- Significance of security technology in the prevention of accidents
Deeper understanding of contents through practical exercises on the SIMATIC S7-1500 system model

Vereiste voorwaarden

Knowledge according to the course

TIA-PRO3 is required.

Opmerking

In this course you will work with the SIMATIC STEP 7 software based on TIA Portal.

Soort

Face-to-face-training

Duur

3 dagen

Taal

en