SIEMENS

Motion Control i Simatic TIA Portal (TIA-MC)

Kort beskrivning

In this course, you will learn to program the motion control functions integrated in the SIMATIC S7-1500 or S7-1200 controllers using TIA Portal. Core topics are the technology objects speed axis, positioning axis and synchronous axis with practical exercises on training devices (SIMATIC S7-1500 and SINAMICS).

Beskrivning/mål

You will program the SIMATIC S7-1500 or S7-1200 controllers in the TIA Portal. You will be able to precisely control the motion of axes with the integrated motion control functions.
In this technology course, you will learn step by step the benefits and the use of these functions. After each learning step, you will deepen your knowledge with hands-on programming.
After attending the course you will understand the interaction of the technological functions. You will be able to select and configure appropriate technology objects, such as speed axis, positioning axis and synchronous axis, and integrate them in your program.

Målgrupp

Programmer
Commissioning engineers
Engineering personnel

Innehåll

Basics of motion control
SpeedAxis technology object
PositioningAxis technology object
Homing and traversing movements
Programming with PLCopen
Error messages and diagnostics
Communication and libraries
Output cam and measuring input
SynchronousAxis technology object
Absolute and relative gearing
Strategies for synchronization and desynchronization
Cam disc creation using the graphical cam editor and during runtime
Closed-loop control and optimization
Interplay between Motion Control and Safety Integrated
Cam disc creation using libraries
Practical exercises on training devices with SIMATIC S7-1500T and SINAMICS drives

Förkunskaper

Knowledge of programming in the TIA Portal equivalent to knowledge after completion of the Simatic TIA Portal programmering 1 för plc (TIA-PROG1) or Simatic TIA Portal service 2 för plc (TIA-SERV2) course

Typ

Utbildning

Antal dagar

4,5 dagar

Språk

sv

Pris

27 200 SEK