SIEMENS

SIMATIC PCS 7 Process Safety (ST-PCS7SAF)

Short Description

In this course you learn how to generate a PCS 7 conform and failsafe application with CFC and Safety Matrix.

Objectives

The theoretical parts of the training are backed up with practical exercises. These exercises are done with failsafe CPU 410-5H with failsafe signal modules connected via PROFIBUS and PROFIsafe. After the course you will be able to engineer safety functions and adjust safety relevant times.

Target Group

- Sales employees
- Project managers, project staff
- Programmer
- Commissioning engineers, configuration engineers

Content

- Functional safety
- Basics from IEC 61508 and IEC 61511
- LOPA (Layer of Protection Analysis) and Risk graph by means of a safety instrumented function
- Explanation of SIF (Safety Instrumented Function)
- System architecture and diagnostics in safety components (Hardware, Software, Communication)
- Overview about F-Hardware
- Parameter in HW-Configuration (safety mode, sensor evaluation, addressing, monitoring time, H-parameter, Wiring and Voting)
- Safety program (Acknowledgement, voting blocks, block types, Secure Write Command++, communication)
- Safety mechanisms (F-Shutdown, Partial Shutdown Groups, passivation, reintegration, block type)
- Safety Matrix
- Calculate and adjust F-times using S7ftime.xlsm (reaction-, monitoring times)

Prerequisites

- General basic knowledge of process automation
- Basic knowledge operation and monitoring with SIMATIC PCS 7 OS
- Good experience in AS configuration with SIMATIC PCS 7

Alternatively, we recommend attending the basic training course for SIMATIC PCS 7 "ST-PCS7SYS".

Note

- Course language is English

Type

Face-to-face training

Duration

4 days

Language

en