

## Design and Programming with F-System in PCS7 / SIMATIC PCS7 (SIS) (A7121)

### Objectives

In this course you become familiar with the PCS7 conform generating of failsafe application with CFC and Safety Matrix. The theoretical parts of the training are backed up with practical exercises. These exercises are done with failsafe and highly available CPUs CPU 412-3 H and CPU 414-4 H with Profisafe. After the course you will be able to evaluate safety functions and adjust security relevant times.

### Target Group

programming, commissioning and configuring engineer

### Content

- Functional safety Basics from IEC61508 and IEC61511, Layer of Protection Analysis and Risk graph by means of a 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)
- F-Library system functions (F-Shutdown, Partial Shutdown Groups)
- F-Library system user functions (Safety Data Write, F-Quittes, communication, voting blocks)
- applications (passivation, reintegration, block typical)
- Safety Matrix, Calculate and adjust F-times using S7ftimeb.xls (reaction-, monitoring times)

### Prerequisites

Completion of course A1501

### Type

Face-to-face training

### Duration

4 days

### Language

zh

### Fee

5,600 CNY