SIEMENS

SIMATIC PCS 7 Process Safety (ST-PCS7SAF)

Краткое описание

In this classroom course, you will learn how to create safety-related systems in a compliant manner with SIMATIC PCS 7 Process Safety.
The content is the correct use and configuration of fail-safe technology, as well as engineering in the environment of SIMATIC PCS 7 with a focus on CFC project planning in combination with F-Systems and the Safety Matrix. You will check the safety program with the help of using the online functions in PCS 7 and the corresponding visualization on the operator station.

The theoretical parts of the training are supported by practical exercises. These are carried out on failsafe CPU 410-5H automation systems with communication via Profinet and failsafe signal modules in the ET 200SP HA.

Цели

After attending the course, you can do the following:
- Raise your awareness of the Machinery Directive and relevant standards
- Select and configure failsafe hardware according to your functional safety requirements
- Commission failsafe SIMATIC controllers
- Configure safety-related functions and determine and set safety-relevant times
- Configure and set up the SIMATIC PCS 7 Safety Matrix
- Perform diagnostics and troubleshooting in failsafe systems and programs

You will deepen your theoretical knowledge through practice-oriented exercises in our training rooms with real hardware and the required engineering station.

Целевая группа

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

Содержание

- Understanding of 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)
- Project planning and handling of the Safety Matrix
- Calculate and adjust F-times using S7ftime.xlsm (reaction-, monitoring times)

Требования к участнику

- General basic knowledge of process automation
- Independent work with SIMATIC PCS 7

- Experience in engineering and operating visualization with PCS 7 (OS)
- Experience in configuring the hardware, as well as programming in CFC with PCS 7 (AS)

We recommend attending the SIMATIC PCS 7 system course "ST-PCS7SYS". Alternatively, there is the option of booking our hybrid training variant as a Learning Journey, which can be ideally integrated into the daily business. The Learning Journey
"ST-PCS7SYS-LJ" consists of guided live modules with a trainer and upstream self-study modules.

- Online Assessment Test

Примечания

- Course language is English

In this theoretical course assessment we request the taught content and the learning objectives from the “ST-PCS7SAF” course.
=> eTest for Course SIMATIC PCS 7 Process Safety

In this theoretical assessment, the content taught and the learning objectives from the course "ST-PCS7SAF" are examined. After passing the exam, you will receive confirmation of successful participation in the course. This is one of the prerequisites for the further certification path at the TV.

Included in the course price:

Free access to the digital learning platform SITRAIN access — starting one week before the start of the course until two weeks after the end of the course. With the Learning Membership, you can deepen or repeat the content of this Learning Event as well as continue your education on other interesting topics.

Тип

Очный тренинг

Продолжительность

4 Дн.

Язык

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