



Objectives

To give the participant an understanding of the maintenance aspects of safeguarding the system, with the emphasis on regular and breakdown maintenance.

Who should attend?

Maintenance and Service Engineers who are responsible for the daily operation and first-line maintenance activities of a safeguarding system.

Prerequisite knowledge

Participants will require fundamental knowledge of computers and working knowledge of MS-Windows. It would also be beneficial for participants to have knowledge of electronics and Boolean logic.

Programme

Hardware: (½ day)

Software (Workbench): 1 day

- § Project creation, IO definition, download
- § Function blocks, creation of UDFB

Maintenance: (1 ½ days)

- § SOE viewer
- § Hardware status diagnosis (Power, CPU, ESB, IO)
- § Status diagnosis with workbench maintenance tools (list of status messages)
- § Preventive maintenance and visual inspection: batteries, connections etc
- § Corrective maintenance: CPU change, power change, ESB card change, IO change
- § Overrides
- § Online modification: precautions, lock the outputs
- § Exercises: Workshop where one group create faults and the other group must find them

Day 1:

- § ProSafe-RS introduction
- § Hardware presentation
- § Exercise 1: ProSafe-RS hardware assembling
- § Workbench presentation
- § Exercise 2: Project creation, IO definition (1 input to 1 output), download

Day 2:

- § Refresh day 1
- § IEC 61131 and function blocks
- § Exercise 3: Creation of Input UDFB & use of an instance of UDFB (ANLG_S)
- § Workbench presentation
- § Exercise 4: Project creation, IO definition (1 input to 1 output), download

Day 3:

- § Maintenance

3 days

Duration