

# System Training

## ELOP II Engineer

### Aim:

This training course provides the participant with all knowledge which is necessary for a programmer as a good basis for independent programming and operation of a HIMA-PES of system family H41q/H51q.

### Prerequisites:

Basic knowledge of electrical and digital functions, knowledge of personal computer (Windows handling)

### Training course contents:

- Installation of ELOP II
- Norm IEC 61131-3, description of functions and function blocks types of data and variables
- Configuration, libraries, resource types
- System overview and design of the HIMA-PES H41q/H51q
- Functions of central and I/O modules
- Power supply and voltage distribution
- Implementation of I/O modules, connection of variables to I/O modules
- Structure of ELOP II and projects
- Function blocks of HIMA, generally and according I/O
- Offline-test, code generation, code comparison
- Programming exercises
- Copy of objects, archiving and backups of projects
- Safety functions and fault reactions
- Loading and starting of the HIMA-PES
- Online-Test, forcing of I/O circuits
- Archiving and restoring of projects
- Diagnostic display, fault messages and explanation
- Exchange of modules during operations
- Data communication HIPRO-N, HIPRO-S, Profibus-DP, Modbus, OPC, Ethernet
- Layout and compiling of documentation print-out
- Notes for the operation of a safety-related PES

**Duration: 4 days**



... the safe decision.