Certified PROFIBUS Engineer

The 'Certified PROFIBUS Engineer' course is a world wide recognized training program. It has been founded to create a quality platform for PROFIBUS qualified engineers who are acknowledged by an official exam.

CPE

- Training methodology Certified engineer (CPE); Theory + practice + 1 day exam
- Price Certified engineer (CPE); € 1850 - per person, subjected to changes
- Duration Certified engineer (CPE) 4 days

CPA

- Training methodology Certified PA Module (CPA); Theory + practice (incl. ½ day exam)
- Price Certified PA Module (CPA); € 900,- per person
- Duration Certified PA Module (CPA); 2 days

The Certified PROFIBUS Engineer course is an intensive hands-on and theoretical 4-day training program. On the last day there will be an exam. After passing the exam, the participant gets the title ‘Certified Engineer' and will be officially registered.

The Certified PA module takes 2 days and is fully concentrated on PROFIBUS PA. It is only accessible for people who have passed the standard Certified PROFIBUS Engineer course.

PROFIBUS plays a primary part in industrial automation and in most cases Certified Engineers are the only ones who can carry out the project. Through the valuable Certified Engineer status, companies and its employees can distinguish themselves from the other companies who are involved with this technology.

Target audience

This training course is intended for everyone who has to understand the theoretical and practical aspects of PROFIBUS. For example:

- Advisors and consultants
- System integrators
- Project leaders
- Programmers
- Hardware engineers
- Installers
- Suppliers
- Teachers

Topics

Certified PROFIBUS Engineer (CPE)

Certified PA Module (CPA)

Basics

- Token passing
- Masters and slaves
- Baudrates
- Message formats
- SAPs

Difference between DP and PA

DP/PA couplers and links

- Currents, voltages and limits
- Specifications
- Performance
- Required busparameters

RS 485 technology

- Electrical characteristics
- Topology
- Number of connections
- Spurs
- Termination
- Cable specifications
- Redundancy
- Grounding and shielding

MBP technology

- Electrical characteristics
- Topology
- Spurs
- Termination
- Cable specifications
- Grounding and shielding

Network components

- Connectors
- Repeaters
- Active termination
- DP/DP couplers

Network components

- Connectors
- Junction boxes

Explosion safety and solutions DP-V1

Test and measurement tools

- Handheld tools
- Busmonitors
- Oscilloscopes

Parameters and profiles

- The structure of cyclical data
- Status value
- Profile GSD files and Ident Numbers
- Parameter sets from instruments
- Difference FDT/DTM/DDL

Bus parameters and cycle times

- Tslot, Max_TSDR, etc
- Watchdog
- Repeats
- Min_Slave_Intervall
- HSA

Practical exercises

- Creating networks with the help of configuration tools
- Setting parameters at instruments
- Generating diagnostics
- Oscilloscope measurements
- Using ProfiTrace and the PA Probe
- Calculating currents and voltages

And many more subjects.....

DP technology

- Diagnosis, Parameters and Configuration
- Sync and Freeze
- GSD files
- Cyclic and acyclic
- Interface with PLC/DCS

Practical exercises

- Creating networks with the help of configuration tools
- Using ProfiTrace
- Setting bus parameters
- Class 2 functions
- Generating and reading diagnostics
- Troubleshooting

And many more subjects.....

Other information

- The participants will receive: a course book, USB-stick, writing materials and a certificate (after passing the exam).
- It is allowed to install ProfiTrace on your laptop and use it during the practical sessions.
- A lunch is included on all course days and the exam day.