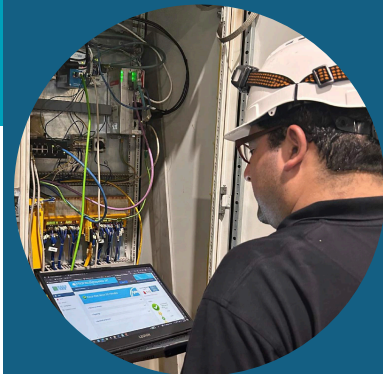# Training Overview PROFINET

Target Group

Hands-on troubleshooting training for individuals from the commissioning, maintenance, and service departments. Basic knowledge of industrial automation is recommended.

Training Objectives

- Understand the basics of PROFINET technology and its areas of applications
- Learn the planning, installation, acceptance, and maintenance of PROFINET systems
- Be able to use diagnostic tools effectively
- Carry out quality assurance and troubleshooting in PROFINET networks

Contents of the Course

1. Introduction to PROFINET technology
- The Organization PI (PROFIBUS & PROFINET International)
- Overview of the PROFINET fieldbus technology
- Similarities and differences to classical fieldbus systems

2. Characteristics of PROFINET and network components
- Performance classes, conformance classes, and netload classes
- Refreshing time and update rater
- Cabling, connectors, and switches

3. EMC & Potential Equalization
- Explanation of shielding
- Taking EMC interferences already into consideration during planning phase
- Detecting and eliminating EMC weak points in existing installations (functionality of a shield, functionality of potential equalization, ways of coupling in case of disturbances)

4. PROFINET Diagnosis
- Most important diagnosis parameters
- Handling of diagnostic tools
- Simulation of several error scenarios
- Troubleshooting on sample setup

Troubleshooting Tools Used for Training

- PNMA Tap
- PROlinetest | PROFINET-Ethernet cable tester
- PROFINET-INspektor® NT
- EMCheck® clamps – LSMZ I, MWMZ II, ISMZ I
- PROscan Active Topology
- PROmanage® SCADA

To register for this course or for other training inquiries please email us at sales@indusolamerica.com.

Additional Details

Duration: 1.5 days of training

Class Size: Max. 8 participants

Language: English, Spanish, German

Equipment: Laptops and training stations provided

Certification: Receive a Participation Certificate

Travel: Travel expenses not included