jcom Automation

EtherNet/IP

EtherNet/IP Installers course

EtherNet/IP networks require specialized wiring and cabling techniques to be robust and trouble-free. This course will provide you with the knowledge and skills you need to run the communication cables, wire the connectors, test the cables, and setup basic equipment. You will also learn how to minimize the impact of EMC on the network. This course uses real world examples and hands-on learning to provide you with the best training experience.

The course ends with both a written and practical test.

Upon completion of this course, the student shall be able to:

- Add devices to an existing EtherNet/IP network
- Understand how the network functions
- Install an EtherNet/IP network
- Know the methods required to mitigate common EMC issues

Course outline

- Introduction to EtherNet/IP
- Network infrastructure
- EtherNet/IP cabling, copper
- EtherNet/IP cabling, fiber-optic
- Signal transmission and pickup
- Grounding and shielding
- Device identification
- Installation qualification

Hands-on Exercises:

- IP addresses and ping
- Wiring lab
- Setting IP addresses
- Scanning network

Training Equipment:

- IO-Scanner (Codesys software running on a Raspberry Pi)
- IO-Adaptors include Helmholz TB-20 IO rack and Turck IO block
- PROCENTEC Atlas permanent monitoring system
- Wireshark Protocol Analyzer
- Ethermet cable tester

Class Day Information

- Attendees must bring a laptop or tablet which can read a USB drive.
- Attendees will receive a support USB drive with an electronic version of the materials plus key PI documents.
- Students will receive a certificate of attendance and 7.5 verifiable professional development hours
- Class size is limited to a maximum of 8 students (2 students per training rack).

Course duration

This course requires 7.5 hours of instruction which includes two 15 minute breaks and one 30 minute lunch break.

Scheduled Classes

- Please check our website for scheduled classes or contact us to arrange a training date
- On-site or On-demand classes are available upon request

Course code and Prerequisites

- Course code: T-ETHERNETIP-01
- There are no prerequisites for this course.

Instructor

James Powell, P.Eng., is the principal engineer and owner of JCOM Automation Inc. He has written many articles and two books: *HART Communication Protocol – a practical guide,* and *Catching the process fieldbus – An introduction to PROFIBUS and PROFINET*. James is a certified PROFIBUS DP, PA, and PROFINET network engineer, PROFIBUS System Design Engineer and has over 20 years of experience with PROFIBUS, PROFINET, EtherNet/IP, Modbus, and HART installations.

JCOM Automation is a member of PROFIBUS PROFINET North America and is a certified PROFIBUS and PROFINET training center and Competence Center.

To book this course for yourself or your team, please contact JCOM Automation at admin@jcomautomation.ca or +1-705-868-8745.