

Certified PROFIBUS DP/PA Network Engineering class (4 days)

How do I design a PROFIBUS network? How do I install it? How do I configure it? How would I troubleshoot it? If you are asking yourself these questions, then this course is for you!

This is an intense and detailed course on how to design, install, commission, and troubleshoot both a PROFIBUS DP and a PROFIBUS PA network. Besides discussing particle installation issues, it also gets right down to the protocol/packet level and includes detail information on the bus parameters.

Both the course and the instructors have been certified by PROFIBUS PROFINET International which guarantees a high quality of training. The course ends with both a written and practical test. Successful students will have their names listed on the PROFIBUS website as both a certified PROFIBUS DP and PROFIBUS PA network engineer.

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

-) Know how to design a PROFIBUS network
-) Know how to install and setup a PROFIBUS network
-) How to decode a PROFIBUS packet and understand how the protocol works
-) Understand the basic bus parameters
-) Know how to trouble shoot common and un-common problems.

Topics Covered:

-) Introduction
 - o Introduction to PROFIBUS
-) Overview of PROFIBUS Components
 - o Basic definitions
 - o Different physical layers
-) PROFIBUS Design
 - o Basics of DP/PA design
 - o Lab: Design lab
-) PROFIBUS Advanced design
 - o What else to consider
 - o Proxy, gateways, and repeaters
 - o Lab: Design exercise
-) Installation best practice
 - o How to approach the installation
 - o Grounding and wiring
 - o Installation best practice
 - o Lab: Wiring
-) Setting up a PROFIBUS Master
 - o Setting up master
 - o Difference between masters
-) Lab: setting up a master
-) Setting up a PA device
 - o Profile standard
 - o Overview of configuration software
 - o Lab: setting up an instrument
-) PROFIBUS Theory
 - o OSI 7 layer model
 - o Startup cycle
 - o Command structure
 - o Bus parameters
-) Applying the theory
 - o How to use the theory
-) PROFIBUS Device Diagnostics
 - o Diagnostics via cyclic/acyclic
 - o Recommended procedures
 - o Lab: Device diagnostics
-) Troubleshooting common problems
 - o Common problems
 - o Lab: Using a bus monitor
 - o Lab: Using permanent monitoring
 - o Lab: Troubleshooting

Prerequisites

There are no prerequisites for this course. However, it is highly recommended that the student has been introduced to PROFIBUS before.

Class Day Information:

-) Attendees will receive: a course notes, writing materials and a certificate of participation.
-) Attendees will also receive a copy of 'Catching the process fieldbus – An introduction to PROFIBUS and PROFINET' co-written by the instructor James Powell
-) Class size is limited to a maximum of 8 people (2 students per training rack).

Instructor:

Your instructor for this course is James Powell, P.Eng., co-author of 'Catching the process fieldbus – An introduction to PROFIBUS and PROFINET' (published by PROFIBUS and PROFINET International). James has 17 years of experience with PROFIBUS and has presented technical training in China, Chile, Argentina, Ecuador, USA, Canada, UK, Germany and the Netherlands. He is a certified PROFIBUS DP, PA and PROFINET network engineer.



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

Costs: \$2,995 USD for non-members of PI North America and \$2,495 USD for members.

Registration method: Please register at www.us.profibus.com under training/certified training.

Training Location: Training center is located at the Holiday Inn in Peterborough, Ontario, Canada.

Dates: April 3rd to the 6th 2017

October 23rd to the 26th 2017

Please note that this course can be done on-site for any customer. Please email JCOM Automation directly at jamesp@jcomautomation.ca for details and quotation.