

Certified PROFIBUS System Design Course

11th to 14th December
2017

PROFIBUS Installers are certified, the devices are certified, but what about the system design itself?

A 3½-day course covering the Certified PROFIBUS Installer and optimal design of PROFIBUS automation and control systems.

Run by the Profibus Competency Centre of Southern Africa (PCC)

Introduction

IDX, who operate the PROFIBUS Competence Centre in South Africa, will be hosting and presenting **the newly certified PROFIBUS System Design Course**. It is your chance to be **amongst the first in the country** to earn this PROFIBUS International accredited certification.

Who is this Course for?

This course is aimed at anyone who is dealing with the design, specification or procurement of modern automation and control systems at the engineering or technical level. The course is also suitable for device manufacturers, system integrators and technical sales/marketing people who want to know the best way to put systems together.

Prerequisites

The Certified PROFIBUS Installer certification is a prerequisite and will be included in this course and can be considered as a refresher for those who have already obtained the certification.

Venue

IDX Offices, 1 Weaver Street, Fourways, South Africa

Cost

R23 000 excl. VAT

What does the course cover?

The course provides a top-down approach to designing a modern automation and control system and helps managers and designers to make the correct decisions from the project beginning. The course is applicable to all sectors of industry from factory automation to process control. Examples and case-studies used on the course are from a wide range of industries including manufacturing, process plant water-treatment, materials handling and automated part sorting storage and retrieval. One of the aims of the course is to cover the design of modern control systems that are maintainable and which minimise the impact of control system and network failures which will inevitably occur during the life time of the plant. The aim is to minimise the footprint of failures in terms of restricting the extent of the effects of failures and also the time to locate and repair faults.

The course also covers the use of some of the latest and most important developments to appear on the market, including new devices which provide permanent monitoring of networks and notification in the case of degradation or failure.

Only 10 spaces are available so book now to ensure that you don't miss this opportunity!

Times: 8am to 5pm each day (Friday the 4th will end at lunch time after the exam)

Bookings and more information:

email academy@idx.co.za

Tel +27 11 548 9960

More on the Course Content

General system design requirements

The control system life cycle, consideration of maintenance, health checking and fault finding features. Characteristics of communication and transmission technologies. Environmental considerations and choice of appropriate devices, cables and connectors.

PROFIBUS network layout and design

PROFIBUS network architectures and their relative advantages in terms of performance, maintenance and reliability. Integrating operation, supervision and engineering information into the control system.

PROFIBUS profiles

How profiles can simplify system design, maintenance and give vendor independence. Use of profile GSD files and DTMs.

Hazardous areas

Essential requirements for hazardous areas and available design options. Design of Intrinsically safe RS485 and MBP segments.

High availability systems and redundancy

Basics of component and system reliability and application of basic reliability modelling techniques.

Overview and evaluation of practical solutions for high availability PROFIBUS systems, limitations and essential needs.

Fibre optic, infra-red and wireless transmission

Basics of fibre optic transmission. Connector and cable types.

Design and application of various topologies, solutions for redundant fibre optic systems.

Basics and design considerations for infra-red and wireless communication.

Modern solutions for network monitoring

Safety related systems

Essential requirements and design options for safety related systems.

Control system and network timing

Control system sampling and timing considerations. DP and PA cycle time and jitter estimation. The effect of gateways and couplers. Basic characteristics and applications of isochronous cycle timing.

Documentation and drawing standards

The course includes case study material and practical examples on how the techniques are applied. A theory test at the end of the course ensures that the attendees understand and can apply the material covered. Successful candidates will be awarded the Certified PROFIBUS System Designer Certificate issued by PISA.