CAREER MANAGEMENT CONSULTANCY &TRAINING
كرير للإستشارات الإدارية والتدريب

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IE083:
Fundamentals and Foundation of Fieldbus Technology in Industrial Automation

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Training Description:

As Foundation fieldbus technology continues to grow among the end user community, technology updates with new and advancements strengthen the demand. Weather you need to learn the basics or keep abreast of the latest enhancements, training essential. Manufacturers must be confident with the technology to meet both the demands and expectations of their users. Fieldbus professionals must be able to identify fieldbus applications, understand the requirements to install those applications, and be able to talk about the benefits and advantages, in addition to knowing the differences between foundation fieldbus and existing technology used in control systems today. The fieldbus foundation offers a variety of training courses that every fieldbus professional should attend.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Familiarise process control and be acquainted with existing 4-20 MA technology found in present day installations
- ✓ Familiarise the basic concepts and new technology related to foundation fieldbus
- ✓ Understand the key strategies for writing and installation of fieldbus network
- ✓ Acquire knowledge special emphasis made on such design issues as power requirements, device types and topologies
- ✓ Design mate, a software tool for modeling physical layer implementations
- ✓ Understand appropriate device placement and expected bandwidth utilization
- ✓ Determine the appropriate control strategies, loop times, and device types to be implemented on individual segments
- ✓ Learn the differences between the block types as well as key components of the understand function blocks defined by the Fieldbus Foundation
- ✓ Understand concepts including mode and status, linkages, alarming, and any field diagnostic and scheduling
- ✓ Understand the importance of the device description and capabilities file that accompany every fieldbus device

Training Designed for:

This course is intended for all Developers, Marketing Professionals, Applications Engineers, System Integrators, and others interested in seeking a fundamental knowledge of foundation fieldbus as they get started with foundation technology and develop fieldbus products.

Training Program:

DAY ONE:

- ❖ Pre-Test
- ❖ Introduction to Foundation Fieldbus
- ❖ Fieldbus Foundation Overview
  - History of the Fieldbus Foundation
  - Product and Services
  - Specification Status

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DAY TWO:

- Fieldbus Fundamentals
  - Overview
  - Terminology
  - Benefits

DAY THREE:

- Wiring and Installation
  - Comparison to 4-20mA
  - Maximum Devices/Lengths
  - Segment Layouts
  - Segment Requirements
  - Recommendations
  - SIF
  - Designmate Tool

DAY FOUR:

- Communications
  - Fieldbus Device Types
  - Device Addressing
  - Device Data Storage
  - Basic Device Communications

DAY FIVE:

- Function Blocks & Device Description Technology
  - Block Applications
    - Device
    - Control
  - Standard Blocks
  - Data Quality and Diagnostics
    - Mode
    - Status
    - Alarms & Diagnostics
    - View
  - Scheduling
  - Device Descriptions
  - Capability Files
- Demonstrations
  - Demonstrations of the technology using registered devices in a simulated process
- Course Conclusion
- Post-Test and Evaluation

Training Requirements:

"Hands-on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

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Please note that the above topics can be amended as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

For training registrations or in-house enquiries, please contact:
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Training & Career Development Department