Industrial Automation Using

Course general description:

This course is aimed at benefiting those engineers and technicians who need to design, commission and maintain automation and process control systems using Programmable Logic Controllers (PLC's).
The objective of the course is to provide the practicing engineer and technician with the necessary tools to design, specify, configure, install and commission a complete PLC system. The main challenge today is for engineers and technicians to make optimum use of their plant and equipment through automation and process control techniques.
The result of effective automation and process control are products, which cost less and have more controllable quality levels. The PLC is one of the key components in achieving this productivity improvement. PLCs in the past have differed widely in their programming and hardware structure. However there has been a rapid convergence today between different systems from the different manufacturers.

Audience:

This course is designed for:

1- Electrical supervisors
2- Electrical Engineers
3- Anyone involved in the industrial automation systems

Course objectives:

The issues that will be discussed are:

- The basic components of a PLC system.
- The fundamental operating principles behind using a PLC.
- Good installation practice.
- Discussion on programming PLCs.
- The PLC as part of a complete Local Area Network The PLC and the operator interface.
- High Security PLC systems.
- Guidelines to troubleshooting of PLCs.
- PLC project specification

Course duration:

5 days

Course location:

Cairo-Dubai-Istanbul

Course contents:

Day-1
Fundamentals of PLC's
Programming Techniques
Good Installation Practice
Day-2
System Techniques
Data Communications
Operator Interfaces
Day-3
High Security PLC Systems
Troubleshooting
Day-4

Problem Isolation, Troubleshooting and Maintenance

Day-5

Practical Project

Methodology:

- 50% lectures & concepts
- 10% Videos
- 10% Case studies
- 10% Exercises
- 10% Discussions
- 10% Software (if applicable or examples)

Course code: (TEEI007)