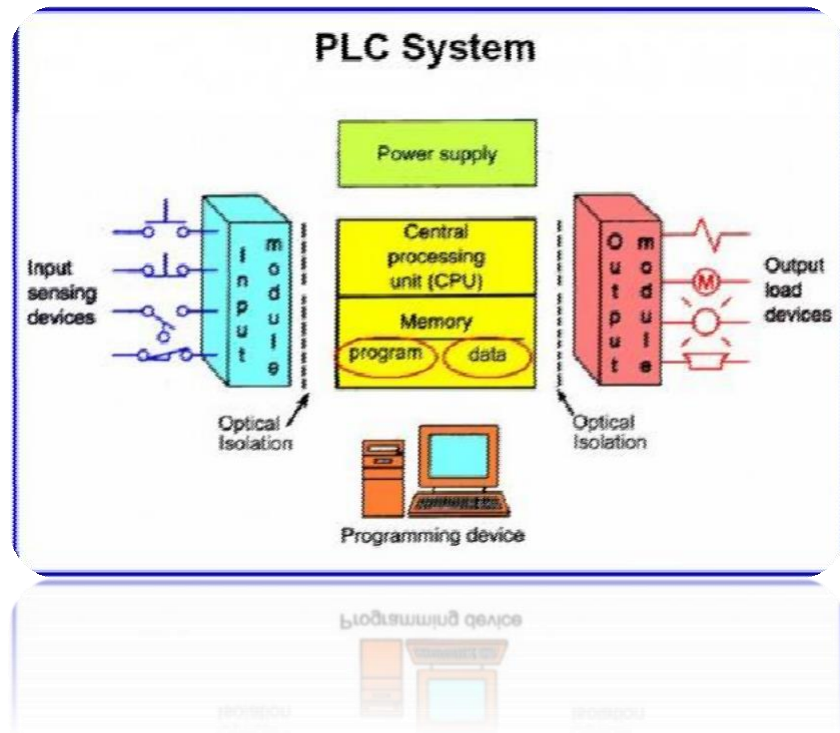




ICE007

Fundamentals of Programmable Logic Controllers (PLC)

Course Introduction:

Programmable logic controllers (PLCs) have been an integral part of factory automation and industrial process control for decades. PLCs control a wide array of applications from simple lighting functions to environmental systems to chemical processing plants. These systems perform many functions, providing a variety of analog and digital input and output interfaces; signal processing; data conversion; and various communication protocols. All of the PLC's components and functions are centered around the controller, which is programmed for a specific task.

This course is designed to teach the student the purpose, uses, and basic applications of the SLC 500 programmable logic controller (PLC) in industrial environments utilizing RSLogix 500 software to program the AllenBradley PLC.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- ✓ Understand the purpose, functions, and operations of a PLC
- ✓ Identify the basic components of the PLC and how they function
- ✓ View a directory of processor files using PLC software
- ✓ Establish communications with a PLC
- ✓ Restore and monitor a PLC processor file using PLC programming software
- ✓ Run a PLC processor file using PLC programming software
- ✓ View the status of the SLC-500 input and output data tables
- ✓ Create a PLC project using PLC software
- ✓ Configure the I/O for a PLC project using PLC software
- ✓ Enter a basic PLC program using PLC software
- ✓ Save a PLC program to a disk using PLC software
- ✓ Edit a PLC program using PLC software
- ✓ Generate and print out a ladder logic report using PLC software

Who Should Attend?

This course is intended for all Technicians, Supervisors, Engineers and Designers, who are involved in the design/operation of Programmable Logic Controller in factory automation.

Course Outline:

Day 1:

Pre Test

- Introductions to the purpose, functions, and operations of the PLC in industrial applications
- Identification of various components of the PLC

Day 2:

- Introduction to PLC ladder logic and basic programming concepts
- Establishing communications with the PLC

Day 3:

- Definitions of Allen-Bradley conditional inputs and outputs
- Electrical continuity versus logical continuity

Day 4:

- Applications of discrete inputs with PLC's
- Programming applications and navigation through Allen-Bradley RSLogix 500 software
- I/O configuration and downloading PLC programs

Day 5:

- Installation and troubleshooting sensors wired as sinking or sourcing current
- PLC timer and counter concepts and programming applications
- Programming applications using sequencers

Post Test

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play

- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Fees: المركز العالمي للتدريب والتطوير

International Centre For Training & Development

To be advised as per course location. This rate includes participant's manual, and-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

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