



PLC Automation (Siemens) system



23 - 27 February 2025



Manama (Bahrain)

# PLC Automation (Siemens) system

course code: O15012 From: 23 - 27 February 2025 Venue: Manama (Bahrain) - Crowne Plaza course Fees: 3700 Euro

## What you'll learn:

- Start programming in ladder logic
- Understand basic PLC simulations using SIEMENS LOGO! training KIT
- Uderstand S7?1200 PLC and TiA Portal software available CPU's, extension modules, Tia software, comparison with S7?300 and STEP 5)

## Description

### So What is a PLC?:

A programmable logic controller, also called a PLC or programmable controller, is a computer-type device used to control equipment in an industrial facility. The kinds of equipment that PLCs can control are as varied as industrial facilities themselves. Conveyor systems, food processing machinery, auto assembly lines...you name it and there's probably a PLC out there controlling it.

### What is this PLC Course about?:

This innovative PLC training, is addressed to all automation enthusiasts. The tutorial is based on Siemen's LOGO! 12/24 RC and Siemens S7-1200. If you are thinking about working in automation industry, you have to deal with PLCs. If you work or study, and wondering if- and how - to start your adventure with PLC, see our course! All over the world, the continuing development of industrial automation makes PLC training a good investment.

### What does this course teach?:

Provides you a complete introduction to understanding PLC logic and career building skills needed for this industry. Creating your first projects will teach you solving real world problems in practical projects you may encounter when working with PLC's.

### What will I learn in this course?:

### First programs - basic instructions and challenges filmed using Siemens LOGO Training kit for visualization:

- How to assemble a PLC device
- What are the uses of programmable controllers in industry and building automation
- How to write programs in LOGO! Soft Comfort
- Functions used in programming
- Fundamentals of ladder logic
- How to work with analog inputs and timers

## More Advanced topics for S7-1200:

- Familiarize with S7-1200 PLC and Tia Portal software (available CPU's, extension modules, Tia software, comparison with S7-300 and STEP 5)
- Easy start with Tia (description of main parts of the screen - project tree, instructions, program view)
- Parameterization of PLC (hardware parameters, create hardware set in software)
- Hardware parameterization part 1 (I/O, PROFINET interface, online diagnostics, time settings)
- Hardware parameterization part 2 (memory bytes, generators, protection, web server)
- Watch and force table

## Writing your first programs - basic instructions and challenges:

- Introduction - LADDER, FBD, SCL- definitions and history
- Organization of memory in PLC
- OB,FB,DB,FC - how to use
- Copy input signals to outputs (open coil)
- Switching output on each pulse of input signal (P/N-slopes)
- Activation hardware generators - special memory
- Program for turn signal on basis of system in cars (S/R coils)

## Who is the target audience?:

This PLC course is meant for new users who are not familiar with PLC programming. Non prior programming knowledge is needed. This course is probably not for you if you're looking to learn more advanced and complex queries

