



# SIMATIC S7 PLC Programming—Advanced Level based on S7-300/ 400



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## Why Attend

The main aim of this course is to provide the participants with basic knowledge about Siemens PLC Programming, to create or to modify Step 7 PLC programs and to find PLC program faults.

## Course Methodology

The course is hands on with great emphasis on the practical aspects of Programmable Logic Controller applications. The course is based around Siemens S7-300 / 400 range of PLCs using SIMATIC Manager.

## Course Objectives

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

The course objectives are to provide the participants with the knowledge and skills to enable them to work with Siemens S7 (300 / 400 Series)

On completion of this course the participant will be able to:

- Be familiar with ways you can use different block types (FC, FB, OB, and DB).
- Become familiar with the principles of analogue value processing
- Eliminate software errors that lead to a CPU stop.
- Eliminate logical software errors, such as multiple assignments.
- Save and document program changes that have been made.
- Access and use the processed analog values.
- Write advanced programs, use program breakpoints to test the operation of the program and diagnose errors using the Step7 V5.5 software package on S7-300 or S7-400 PLC's

## Target Audience

Electrical and instrumentation technicians and engineers

## Target Clients

- Oil & Gas
- Food & Beverage
- Cement
- Chemical Industry
- Mining
- Fertilizers
- Pharmaceutical Factories.
- Water and Waste Water station
- Customers who already have in their plants S7-300 / 400

## Note

- The ability to use a MS Windows PC, keyboard and mouse to include opening and closing programs, locating files, copy and paste objects /data (text, etc). Drag and drop files, objects/data (text, etc). Use of menus and multi-menus, manipulation of windows within a multi-window environment. Use of MS Windows Help.
- Must have attended the SIMATIC S7 PLC Basic Course.

This course involves practical and hands-on training on real PLC stands.

## Course Outline

- Quick Revision on Basic Course
- Hardware and Software Commissioning - review
- Installation and maintenance of a PLC
- Data Storage in Blocks



- Functions and function blocks
- Organization Blocks
- Analogue processing and programming
- Troubleshooting using:
  - Module Datasheet
  - Hardware Configuration Tool
  - CPU Messages
  - System information
  - MPI Network Commissioning
  - MPI Global Data Communications
  - Tags and HMI Messages
  - Drive to PLC Configuration
- Each of the above topic areas will be tested through practical exercises using simulator / system model.
- Open-loop control and closed loop control
- PID control algorithm with flow and level control applications
- Open Discussion...



## Location & Date

8 - 12 Sep, 2019	English	Dubai	Meirc Offices Dubai
16 - 20 Feb, 2020	English	Dubai	To be assigned
15 - 19 Nov, 2020	English	Dubai	To be assigned

## Fees: US\$ (including coffee breaks and a buffet lunch daily)

Per participant - 2019	US\$ 3800
Per participant - 2020	US\$ 3900

Fees + VAT as applicable

UAE Tax Registration Number 100239834300003



## Courses in Hands-on Automation and Process Control

Dates	Course Name	Language	Location	Fees
15 - 19 Sep, 2019	Industrial Profibus & Profinet Courses	English	Dubai	US\$ 3900
22 - 26 Sep, 2019	Human Machine Interface based on SIMATIC WinCC TIA	English	Dubai	US\$ 3900
6 - 10 Oct, 2019	Human Machine Interface based on SIMATIC WinCC flexible	English	Dubai	US\$ 3900
13 - 17 Oct, 2019	SCADA Systems based on SIMATIC WinCC Professional	English	Dubai	US\$ 3900
20 - 24 Oct, 2019	Industrial Weighing Course	English	Dubai	US\$ 3900
27 - 31 Oct, 2019	SIMATIC S7 PLC Programming—Basic Level based on S7-1500	English	Dubai	US\$ 3900
17 - 21 Nov, 2019	SIMATIC S7 PLC Programming—Advanced Level based on S7-1500	English	Dubai	US\$ 3900
24 - 28 Nov, 2019	SIMATIC S7 PLC Programming—Basic Level based on S7-300/400	English	Dubai	US\$ 3900
19 - 23 Jan, 2020	SIMATIC S7 PLC Programming—Basic Level based on S7-1500	English	Dubai	US\$ 3900
26 - 30 Jan, 2020	SIMATIC S7 PLC Programming—Advanced Level based on S7-1500	English	Dubai	US\$ 3900
2 - 6 Feb, 2020	Human Machine Interface based on SIMATIC WinCC TIA	English	Dubai	US\$ 3900
9 - 13 Feb, 2020	SIMATIC S7 PLC Programming—Basic Level based on S7-300/400	English	Dubai	US\$ 3900
23 - 27 Feb, 2020	Human Machine Interface based on SIMATIC WinCC flexible	English	Dubai	US\$ 3900
1 - 5 Mar, 2020	SCADA Systems based on SIMATIC WinCC Professional	English	Dubai	US\$ 3900
22 - 26 Mar, 2020	Designing and commissioning Variable Speed Drives	English	Dubai	US\$ 3900
7 - 11 Jun, 2020	Industrial Profibus & Profinet Courses	English	Dubai	US\$ 3900
5 - 9 Jul, 2020	Designing and commissioning Variable Speed Drives	English	Dubai	US\$ 3900
9 - 13 Aug, 2020	Industrial Weighing Course	English	Dubai	US\$ 3900
6 - 10 Sep, 2020	SIMATIC S7 PLC Programming—Basic Level based on S7-1500	English	Dubai	US\$ 3900
13 - 17 Sep, 2020	SIMATIC S7 PLC Programming—Advanced Level based on S7-1500	English	Dubai	US\$ 3900
4 - 8 Oct, 2020	Human Machine Interface based on SIMATIC WinCC TIA	English	Dubai	US\$ 3900
8 - 12 Nov, 2020	SIMATIC S7 PLC Programming—Basic Level based on S7-300/400	English	Dubai	US\$ 3900



## Courses in Hands-on Automation and Process Control

Dates	Course Name	Language	Location	Fees
22 - 25 Nov, 2020	Human Machine Interface based on SIMATIC WinCC flexible	English	Dubai	US\$ 3900

# Meirc Timeline

