

AUTOMATION



TECHNOLOGY



SIMATIC S7 PLC Programming—Advanced Level based on S7-1500



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Training & Consulting



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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 S7-1500 range of PLCs using TIA Portal.

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 (1500 / 1200 controller series).

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

- Understand the interaction of the TIA components
- Apply classical program development methods
- Solve comprehensive programming tasks
- Apply system blocks along with blocks from the standard STEP 7 library
- Understand, adapt, and expand given STEP 7 programs, including with step sequences and analog value processing
- Systematically diagnose and correct hardware and software errors in the SIMATIC S7 automation system with the diagnostic tools of the TIA Portal engineering portal
- Use the test functions in Structured Control Language (SCL)
- Perform specific commissioning of TIA components

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 S7-1200 / 1500

Note

SIMATIC S7 knowledge

- 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
- Tools for program creation
- Analogue value processing, standardization



- Analog sensors / analog actuators
- Voltage/Current Input / Output Signals
- Upper & Lower Limit programming of Analog Signals
- Using Functions and Function blocks
- Using Timers and Counter
- 16/32-bit conversions
- Jump commands
- Commissioning of the TIA system model with distributed I/O
- Error handling and evaluation with error organization blocks (OBs)
- Evaluation of diagnostic data
- Troubleshooting and alarms with a HMI device
- Deeper understanding of contents through practical exercises on TIA system model
- Open-loop control and closed loop control
- PID control algorithm with flow and level control applications
- Open Discussion...



Location & Date

17 - 21 Nov, 2019	English	Dubai	Meirc Offices Dubai
26 - 30 Jan, 2020	English	Dubai	To be assigned
13 - 17 Sep, 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
8 - 12 Sep, 2019	SIMATIC S7 PLC Programming—Advanced Level based on S7-300/ 400	English	Dubai	US\$ 3900
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
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
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
16 - 20 Feb, 2020	SIMATIC S7 PLC Programming—Advanced 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
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
15 - 19 Nov, 2020	SIMATIC S7 PLC Programming—Advanced 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

