

## **SIMATIC S7 ADVANCED**

Códe: SIEM\_S\_02

### DESCRIPTIO/OBJECTIVS

In this course you learn to program using the IEC-61131-3 **instruction list language (AWL)**, including all types of indirect addressing.

The structured programming model is emphasized. The use of function blocks (FBs) with parameters and the multi-instance model are explained in detail.

Matrices, structures and user defined data types are introduced. The training covers the application of some of the special function blocks of the library, such as the real time clock.

Analog variables are treated extensively, including the corresponding diagnostic tools. Likewise the HMI alarms topic is developed.

The theoretical knowledge is complemented by numerous practical exercises, carried out on real PLCs available in the training site, as well as on the simulators.

### CONTENT

- Structured programming technique
- Exercise with structured programming
- AWL language: the status word
- AWL Language: the jump instructions
- AWL Language: the accumulators
- Indirect addressing by memory
- Indirect addressing by register
- Blocks for the real time clock
- The IEC timers and counters
- Function blocks (FB) with parameters
- The multi-instance model
- Matrices and data structures
- Parameter passing: matrices
- Analog signals: input/output
- Diagnostic on analog signals
- HMI operator panel with WinCC Flexible: alarms



## AUDIENCE:

People interested in mastering advanced techniques for handling with Simatic 300/400 PLCs.

Engineers, technicians, electricians, students, operators, maintenance personnel ,...

## REGIME

Intensive: 35 hours (5 days).

The time line and schedule can also be determined according to the customer's convenience.

## REQUIREMENTS:

Base knowledge of PLCs, and/or to have taken the S7-300 basic course (SIEM\_S\_01).

## AVAILABLE SOFTWARE/HARDWARE

- Simatic Step 7 V5.4 or greater
- WinCC Flexible 2008 SP 3 or greater
- Simatic S7-300 models 315-2DP and 315-2PN/DP
- Centralized periphery: digital I/O; analog I/O

## SCHEDULE:

Please **consult**

## INVESTMENT:

Please **consult** for getting a quotation

### Details for reservation:

Course: Simatic S7 basic

Code : SIEM\_S\_02

Duration: 35 hours (5 days)

Place: In Company at the customer's facilities

Investment: please consult

Contact: In Europe: +34 685 059834; in South America: +507 399 5634/+507 399 5635

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## YOUR CONTACT

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This course is also offered in the following languages:



ESPAÑOL



DEUTSCH



Important notice: at the moment, all of our courses are given only  
“In Company”, i.e., in the customer’s facilities

