

## Online Training - SIMATIC S7-400 with SIMATIC Manager (Advance Course) (AS-OL-400A)

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### Objectives

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To make participants aware and familiar with:

- SIMATIC S7-400 automation system
- STEP7 Classic software (SIMATIC Manager)
- Advance programming concepts in STEP7
- Troubleshooting of S7-400 system

### Target Group

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- Service engineers
- Programmers
- Commissioning engineers
- Maintenance engineers

### Content

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#### Hardware topics

- System overview of SIMATIC controller families
- SIMATIC S7-400 family in detail
- Hardware configuration of S7-400 controller in STEP7
- Module installation and wiring

#### SIMATIC Manager topics

- SIMATIC Manager i.e. STEP7 Classic software overview
- Licensing concept for STEP7

#### Software and Programming concepts

- Linear v/s structured programming approach
- Effective programming using function and function blocks
- Use and need of data blocks
- Types of data blocks
- Multiple instance programming
- Complex data types
- Programming of Real Time Clock(RTC)
- Jump instructions
- Overview of indirect addressing
- Concept of Organization blocks

#### Communication - Explanation and demo only

- S7-400 controller with remote station on Profinet(PN)/Profibus DP protocol

#### Hardware redundancy in S7-400 – Explanation and demo only

- Concept of single fault tolerant hardware redundant systems
- S7-400H configuration
- Organization blocks to deal with H system

#### HANDS ON

- Application example-based exercises after each topic.

### Prerequisites

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- Basic know how about automation technology is must
  - Basic knowledge of electrical technology and digital electronics is essential
  - SIMATIC S7-400 Basic course is highly recommended
  - SOFTWARE VERSION: STEP7 v5.6 Professional SR2
- TECHNICAL REQUIREMENT:
- A computer or laptop with Windows 7/10 OS and a stable internet connection. (We recommend a data transfer rate of 16 Mbit/s.)
  - Microsoft Teams platform for technical presentations and demo. (We recommend using desktop app for best possible use of all functions).
  - Google Chrome internet browser for assessing virtual lab solution for hands-on

**Type**

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Online-Training

**Duration**

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3 days

**Language**

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**Fee**

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22,500 INR

18% GST additional on Course fee