

Advanced Automation Course S7- 400 with SIMATIC Manager

(5 Days, 20 Hours)

Day	Content	Faculty
01	<ol style="list-style-type: none"> 1. SIMATIC Manager topics <ol style="list-style-type: none"> a. SIMATIC Manager i.e. STEP7 Classic software overview b. Licensing concept for STEP7 2. Hardware topics <ol style="list-style-type: none"> a. System overview of SIMATIC controller families b. SIMATIC S7-400 family in detail c. Hardware configuration of S7-400 controller in STEP7 d. Module installation and wiring 	Dr Salman Baig, Mr. Fahad Bilal
02	<ol style="list-style-type: none"> 3. Software and Programming concepts Part 2 <ol style="list-style-type: none"> a. Working with symbol table b. Bit logic instructions c. Concept of RLO d. Logic gates in various programming languages e. Programming rules f. Elementary data types g. Arithmetic and logic operations 	Mr Fahad Bilal, Mr Faheem Ansari
03	<ol style="list-style-type: none"> 4. Software and Programming concepts Part 2 <ol style="list-style-type: none"> a. Working with VAT tables b. Analog value processing c. Linear v/s structured programming approach d. Effective programming using function and function blocks e. Use and need of data blocks f. Types of data blocks g. Concept of Organization blocks 	Mr Fahad Bilal, Mr Faheem Ansari
04	<ol style="list-style-type: none"> 5. Communication - Explanation and demo only <p style="margin-left: 20px;">* S7-400 controller with remote station on Profinet(PN)/Profibus DP protocol</p> 6. HANDS-ON 	Mr Fahad Bilal

	a. Application example-based exercises after each topic.	
05	<ul style="list-style-type: none">7. Troubleshooting and diagnostic topics<ul style="list-style-type: none">a. Significance of LED indication on different modulesb. Diagnosis using diagnostic bufferc. Cross-references, call structure, assignment list, dependency structured. Memory overlap identificatione. Project backupf. Forcing, renaming, and rewiring conceptsg. Project comparison8. Hardware redundancy in S7-400 – Explanation and demo only<ul style="list-style-type: none">• Concept of single fault tolerant hardware redundant systems• S7-400H configuration	Mr Fahad Bilal