### Workshop on

## "SIEMENS S5"

Complete Program 4-Days Program

### **About Us**

We are the training providers and deals in Technical, HSEQ, Management and Soft Skills Training.

We have highly knowledgeable and experienced local & foreign subject matter experts. Our team is highly focused and provides the best support as per your requirements and needs.

We provide a platform from where you can add value in you teams. We are highly fascinated on the development of your Technical and Management Teams.

We can provide on-site and classroom training.

### Trainer's Profile

Dr. Salama is our foreign freelance Trainer. He has done his PhD & Masters in Automatic Control Systems and did his Bachelors in Engineering in Electrical power & Machines. He is also an International EX Certified from Compex UK. Currently he is associated with Rasheid Petroleum-Egypt as their Sr. Control Systems Engineer. He has also worked with Rockwell Automation – Allen Bradley, Schneider Electric, Schumberger and Bureau Veritas.

He is a highly skilled in Automatic Controls like:

SCADA & HMI:  $\ \square$  SCADA (Vijeoc citect, , WINCC, Intouch,Rsview32, PCS7, Factory Talk, Wonderware, and Cimplicity ).

- ☐ HMI (Panel builder, XBT, VIJEO DESIGNER, Factory Talk, & Wince flex).
- □ Data Acquisition System (National Instrumental Card )

PLCs: Schneider (Twido, M340, Premium &Quantum)----- Allen Bradley (micro logix, SLC, Compact logix & Control logix), Siemens (S7-200.S7-300, S7-400H, PCS7, 1200 &1500), GE Fanuc (Series 90-30), GE gas turbine controller Mark VIE, YOkogawa ESD system Prosafe), Process Control Using PID (Foxboro).

He has conducted different training sessions in the industries in Dubai, Abu Dhabi and Egypt i.e.

- ☐ Siemens PLC S400
- ☐ Allen Bradley PLC
- □ PLC's & SCADA systems for both Siemens (S300,Wincc v4.0) & Allen Bradley( CLX L73, Factorytalk 8.2)
- ☐ Allen Bradley PLC, CLX 5000, and communication

# **Training Objective:**

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

- Systematically use the current Siemens programmers as tools for program generation, documentation and troubleshooting
- Know performance characteristics, component parts and principle of operation of a SIMATIC S5 programmable controllers
- Fulfill simple logic control tasks, e.g. write programs, start up the PLC and remedy errors
- Master and use the basic operations of the STEP 5 programming language
- Know the different starting characteristics of SIMATIC S5 programmable controllers after a stop status
- Be familiar with typical applications and be able to use them in practice

## **Training Content:**

#### Day One:

- Description of SIMATIC S5 range
- Introduction to step5
- Hardware and software overview

• Representation of STEP5 operations in the form of control system ladder diagram (LAD), or statement list (STL).

#### Day Two:

- Logic operations, result of the logic operation,
- · memory functions,
- Binary Operations
- · create a new project
- counter functions,
- Case studies

#### Day Three:

- comparison functions,
- timer functions,
- · arithmetic operation
- PG functions for program documentation
- Absolute and symbolic addressing
- Case studies

#### Day Four:

- Analog modules types.
- PG functions for tests, diagnostics and troubleshooting
- Action in case of faults in the RUN status and faults leading to the stop status
- Starting characteristics, organization blocks for cold restart and warm restart
- Configuration, addressing facilities and performance characteristics of the CPU's
- Programming of program blocks, function blocks, organization blocks and data blocks and linking with the program structure.

