Course Details

Totally Integrated Automation (TIA)

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TIA PORTAL PROGRAMMING LEVEL 1 (TIA-PRO1) 5 days

HRDF CLAIMABLE SBL Scheme

Requirements

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC.

In this first part of the SIMATIC TIA Portal programming training, we teach you the handling of the TIA Portal, basic knowledge about the structure of the SIMATIC S7 automation system, configuration and parameterization of hardware, and the basics of standard PLC programming. You also receive an overview of PROFINET IO and HMI. **Prerequisites:** Basic knowledge of automation technology.

Description / Objectives

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC. In this first part of the SIMATIC TIA Portal programming training, we teach you the handling of the TIA Portal, basic knowledge about the structure of the SIMATIC S7 automation system, configuration and parameterization of hardware, and the basics of standard PLC programming.

You also receive an overview of HMI, PROFINET IO, and connecting drives. You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model.

Content

- Understand the fundamentals of interaction of the TIA components
- The components of the TIA Portal: STEP 7, WinCC, communication
- Program execution in automation systems
- STEP 7 block types and program structuring
- Binary and digital operations
- Programming of parameterisable blocks
- Data management with data blocks
- Programming organisational blocks
- Program documentation and saving

Target Group

Technical/ Maintenance Manager, Programmers.

Contact Information

SIEMENS MALAYSIA SDN. BHD. (93008-X)
HRDF Training Provider ID: 13213/82

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Bank Details

Bank Name: Deutsche Bank (M) Bhd
Bank Account Number : 0020768000
Bank Address :   18th – 20th Floor, Menara IMC 8,
                            Jalan Sultan Ismail,
                            50250, Kuala Lumpur
Bank Swift Code :   DEUTMYKLXXX

Daywise Schedule

Day	Time	Topics
Day – 1	09:00 Hrs – 10:00 Hrs 10:15 Hrs – 12:00 Hrs 13:00 Hrs – 15:00 Hrs 15:15 Hrs – 17:00 Hrs	Training Units and Addressing System Overview Engineering Software TIA Portal Devices and Networks
Day – 2	09:00 Hrs – 10:00 Hrs 10:15 Hrs – 12:00 Hrs 13:00 Hrs – 15:00 Hrs 15:15 Hrs – 17:00 Hrs	PLC Tags Binary Operations 1 Program Blocks Binary Operations 2
Day – 3	09:00 Hrs – 10:00 Hrs 10:15 Hrs – 12:00 Hrs 13:00 Hrs – 15:30 Hrs 15:45 Hrs – 17:00 Hrs	Functions and Function Blocks Digital Operations Data Blocks Practical on the above
Day – 4	09:00 Hrs – 10:00 Hrs 10:15 Hrs – 12:00 Hrs 13:00 Hrs – 15:00 Hrs 15:15 Hrs – 17:00 Hrs	Connecting an HMI Device Organization Blocks Distributed I/O PROFINET and Profibus Practical on the above
Day – 5	09:00 Hrs – 10:00 Hrs 10:15 Hrs – 12:30 Hrs 12:30 Hrs – 13:00 Hrs	Troubleshooting Training and Support Q&A/ Feedback

Break Timings:

10:00 Hrs – 10:15 Hrs	Morning Tea Break
12:00 Hrs – 13:00 Hrs	Lunch Break
15:00 Hrs – 15:15 Hrs	Afternoon Tea Break
17:00 Hrs – 17:15 Hrs	Recess & End of Day