

# TIA Portal Programming2

(TIA-PRO2)

Expand your knowledge of complex operations and get an introduction in the programming language.

## Programme Description

This training programme is being hosted in conjunction with Engineers Ireland.

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC. The second part of the SIMATIC TIA Portal programming training is based on the knowledge of the TIA Portal gained in the SIMATIC S7 TIA Portal programming 1 course (TIA-PRO1), including STEP 7, HMI, connection of drives, and PROFINET IO. You will expand your knowledge of complex operations in statement lists (STL) and in Structured Control Language (SCL). Along with analog value processing and data administration with complex data types, the evaluation and handling of program-related errors are also considered.

Building on this, you will learn how to display messages on the operator control and monitoring system (HMI). Thanks to the knowledge imparted, you will gain new impetus and ideas for efficient PLC programming. You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7-1500 automation system, ET200SP distributed I/O, TP 700 Touchpanel, a Sinamics G120 drive, and a conveyor belt model.

---

## Who Should Attend?

This training course is not appropriate for trainees using S7-200, S7-300 or S7-400 based systems. This course is also suitable for those using mainly S7-1500 and/or S7-1200 based systems. For more information concerning details of S7-300, and S7-400 please see the section called Simatic S7 PLC.



## Programme Outcomes

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

- Understand the interaction of the TIA components
- Apply classical program development methods
- Solve comprehensive programming tasks
- Program advanced functions such as indirect addressing in Structured Control Language (SCL)
- Implement data administration with the SIMATIC S7 automation system
- Apply system blocks along with blocks from the standard STEP 7 library
- Understand the fundamental differences between optimised access and non-optimised block access
- Program software error handling and evaluation
- Configure alarms of the operator control and monitoring system (HMI)
- Configure TIA system components consisting of SIMATIC S7, HMI, remote IO, and a Sinamics G120

---

## Prerequisites

- SIMATIC S7 knowledge equivalent to the Siemens TIA-PRO1 course.
- You can use the online tests below to find out whether you have sufficient prior knowledge to participate effectively in the course you wish to attend. If you answer more than 70 % of the questions correctly you are well prepared to take part in the course.



## Siemens

SITRAIN open bundles useful information, worthwhile data and up-to-date expert knowledge about Siemens products for industry.

SITRAIN access is learning in the digital age. It offers you individualized ways to build your knowledge, and access to exclusive digital training courses. Take advantage of sustainable learning success with a wide range of learning methods. Improve your skills – whether working in groups with others, or by yourself. Whenever, wherever and however you need to.

---

# SIEMENS



## CPD Points

This course provides you with 35 hours of Engineers Ireland accredited CPD certification.



## Register Now

You can contact us on our website [here](#) to register your interest in this programme.

### Price

€2370 / person

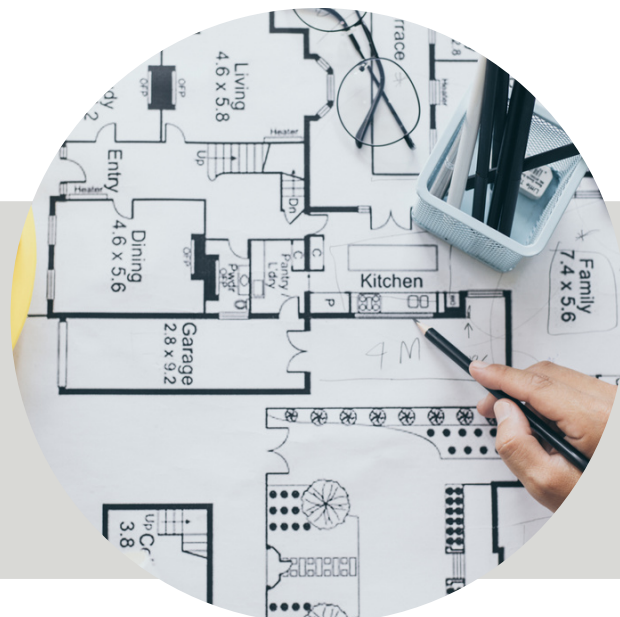
Now with an  
additional  
Skillnet Discount

### Duration:

5 days

### Upcoming Dates:

Visit our website to  
enquire about upcoming  
dates



**Our goal is to keep Irish businesses competitive in an ever-evolving global market, through training and development in the quarry, construction and manufacturing industries.**

---

## **Industry 4.0 Skillnet Membership**

Find out how a free membership to the Industry 4.0 Skillnet can save you up to 30% on training programmes.

**Contact us today to find out more.**





## Contact Details:

Paul Quinn,  
Network Manager  
Industry 4.0 Skillnet

**T:** +353 (0)71 9317 485

**E:** [info@industry4skillnet.com](mailto:info@industry4skillnet.com)

**W:** [www.industry4skillnet.com](http://www.industry4skillnet.com)

