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**KILDARE AND WICKLOW**  
EDUCATION AND TRAINING BOARD

# **TRAINING CATALOGUE**

## **2025**



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## Why choose us?

- ✓ State of the Art Training Facility
- ✓ Industry Relevant Training
- ✓ Conveniently located off the M4 Motorway
- ✓ Fully Funded Government training through Skills to Advance



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**Rialtas na hÉireann**  
Government of Ireland



# Certificate in Industrial Instrumentation Calibration



Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2

## Overview

The Certificate in Industrial Instrumentation Calibration (CIIC) is designed to develop learners understanding of the principles of instrument calibration, calibration terminology, and relevant procedures and to develop the skills to perform calibration techniques, and measure and record data. The programme will equip those working in industry (manufacturing, MedTech, Pharmaceutical) and services with the theoretical knowledge and practical skills to check and verify process control instruments.

## Modules

- Safe work practices in process environments
- Principles of Calibration
- Pressure measurement
- Level measurement
- Flow measurement
- Temperature measurement
- Good practices in calibration system documentation and records

## Learning Outcomes

- Explain the principles of operation of industrial measurement instruments
- Describe the principles of calibration and the associated standard instruments and data sheets/job plans
- Perform appropriate calibration techniques on measurement instrument using standard safety and operational procedures.
- Calibrate measurements and report on indicted errors and requires corrective instrument adjustments
- Measure, record and evaluate appropriate calibration data clearly and concisely

### Duration

4 evenings On-line 18.30 - 21.00 +  
5 Full Days in Centre 9.00 - 16.30

### Target Learner

Individuals employed in manufacturing and service industries who are required as part of their job or in a new role, to have the knowledge, skills and competence to check and verify control systems.

### Certification

QQI Level 6 Minor Award in Industrial Calibration (6N22387)

### Cost

This course is fully funded to those currently in employment under the skills to advance initiative



# Certificate in Industrial Electrical Safety and Systems



## Overview

The Certificate in Industrial Electrical Safety and Systems (CIESS) training course is recommended for anyone who works with electrical systems and is designed to give non-electrical personnel the ability to diagnose industrial faults and to carry out repairs/replacements safely.

This Industrial Electrical Training Course aims to turn out technicians with a knowledge of industrial electrical engineering and the skills needed to specify, install, test and validate electrical and control systems and their operation in a safe manner.



## Modules

- Basic Electric Circuits
- AC Power and Energy
- Transformer and Motor Operation
- Operation and Testing of Control and Power Circuits
- Electrical Safety



## Learning Outcomes

- The learners will gain a broad technical knowledge in the core discipline - electrical engineering and will be provided with the theoretical mathematical basis for these systems demonstrated through practical application.
- Completion of the programme will allow them to understand the electrical maintenance systems and safety required in the manufacturing sectors.
- Real benefits to employers in improving efficiency, effectiveness and productivity of systems while applying ethical, safe and sustainable improvements.

**Duration**  
6 Full Days in Centre  
9.00 - 16.30  
(Electrical Fault-finding and Troubleshooting offered as part of course at an additional 2 days)

**Target Learner**  
Individuals employed in manufacturing and service industries who are required as part of their job or in a new role, to have the knowledge, skills and competence to specify, install, test and validate electrical and control systems and their operations in a safe manner.

**Certification**  
QQI Level 6 Minor Award in Industrial Electrical Safety and Systems (6N21696)

**Cost**  
This course is fully funded to those currently in employment under the skills to advance initiative

# Certificate in Electrical Principles



Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2



## Overview

The purpose of this course is to equip the learner with the knowledge, skill and competence in the principles underpinning the functioning of electrical circuits to understand and work safely with electric circuits



## Modules

- Electrical Principles



## Learning Outcomes

- Describe the characteristics of conductors and insulators and the underlying atomic structure that govern them.
- Describe the units and characteristics of electrical circuits and the laws that govern their relationship to each other.
- Describe the behaviours of various electrical components including capacitor, inductors and transformers and the laws that govern their behaviours.
- Outline the functioning of electrical circuits under direct current and alternating conditions
- Describe the consumption of power in electrical circuits and the factors that affect it
- Calculate the values of various characteristics given sufficient information.
- Construct basic electrical circuits
- Use electrical test metres to diagnose and resolve problems with the functioning of electrical circuits
- Demonstrate an ability to read and draw circuit diagrams
- Resolve circuit malfunctions
- Interpret test results

### Duration

6 Full Days in Centre  
9.00 - 16.30

### Target Learner

Maintenance and Process Technicians

### Certification

QQI Level 6 Minor Award  
in Electrical Principles  
(6N2049)

### Cost

This course is fully funded to those currently in employment under the skills to advance initiative



# Certificate in Industrial Pneumatics Systems



Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2

## Overview



The purpose of this award is to equip the learner with the knowledge, skill and competence to plan and safely carry out the maintenance tasks necessary for the efficient running of industrial pneumatic systems whilst working independently or supervising others.

## Modules

- Industrial Pneumatic Systems

## Learning Outcomes

- Identify standard Components of pneumatic systems and their symbols and describe their function.
- Explain the operation and applications of standard pneumatic components to include valve bodies, valve actuators, levers, trip rollers and solenoids
- Research the potential hazards associated with pneumatic systems and appropriate mitigating measures
- Interpret the main legislative and regulatory Health and Safety responsibilities for employers and employees
- Use a circuit diagram to predict the sequence of operation of a pneumatic circuit
- Perform the maintenance tasks necessary to achieve a required air quality to include changing filters, checking dryers and draining reservoirs
- Specify and perform the routine maintenance procedures necessary on Air Service Units for pneumatic components to include draining and maintaining filters, checking and setting regulators and checking, topping up and setting lubricators

### Duration

5 Full Days in Centre  
9.00 - 16.30

### Target Learner

Maintenance and Process  
Technicians

### Certification

QQI Level 6 Minor Award  
in Industrial Pneumatics  
(6N5375)

### Cost

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# Certificate in Programmable Logic Controllers (PLCs)



Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2

## Overview



The purpose of this award is to equip the learner with the knowledge, skill and competence to program and locate faults in a programmable logic controller (PLC) working independently or in a supervisory capacity

## Modules

- Programmable Logic Controllers

## Learning Outcomes

- Identify the standard components used with PLC's and describe their function to include input board, output board, central processing unit (CPU), power pack and program input system
- List the major types of PLC fault
- Explain the common logic and switching functions of a PLC to include AND, OR, NOT, TIMER, COUNTER and INTERNAL RELAY (FLAG)
- Identify the standard circuit symbols for field input devices to include push buttons, levers, trip rollers, reed switches, inductive sensors, capacitive sensors, photo-cells, relays and contactors
- Use an allocation list to determine the condition of the inputs and outputs of the PLC
- Test the operation of input devices to include push buttons, levers, trip rollers, reed switches, inductive sensors, capacitive sensors, photo-cells, relays and contactors
- Use editing functions to locate, monitor and alter elements of programs by means of a programming panel
- Locate faults using PLC programmes and documentation
- Rectify a fault in a PLC system
- Interpret the standard allocation (assignment) lists and input/output circuits associated with PLC systems
- Formulate short PLC programs in the form of ladder logic diagrams and statement list
- Construct a range of programs as specified in a (supplied hardwired circuit diagram

## Duration

5 Full Days in Centre  
9.00 - 16.30

## Target Learner

Maintenance and Process Technicians

## Certification

QQI Level 6 Minor Award  
in Programmable Logic  
Controllers (6N5370)

## Cost

This course is fully funded to those currently in employment under the skills to advance initiative







# Electrical Faultfinding and Troubleshooting

CELBRIDGE ENGINEERING LAB  
TRAINING AND EDUCATION CENTRE

Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2



## Overview

This course teaches basic electrical troubleshooting techniques, with an emphasis on safety procedures. Real-world scenarios will reinforce the theory, and participants will gain a foundational understanding of electrical troubleshooting used in industry. This knowledge boosts technicians' confidence, efficiency, and professional growth, supported by on-the-job training. The course enables non-electrical personnel to diagnose and repair industrial faults safely, helping learners expand their skills for manufacturing roles.

### Duration

2 Full Days in Centre  
9.00 - 16.30

### Target Learner

Technicians, crafts and new engineers who wish to apply their knowledge of electricity to the maintenance and repair of equipment.



## Content

- Use single line diagrams and control system drawing in faultfinding.
- Use of electrical testing tools in locating faults.
- Be able to apply a logical approach to finding a fault in an electrical control circuit.
- Apply faultfinding aids such as flow charts, system diagrams and circuit diagrams.
- Appreciate the importance of documenting the maintenance history of a machine.

### Certification

Certification of Completion

### Cost

This course is fully funded to those currently in employment under the skills to advance initiative



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# Universal Robotics Core Training

**CELTEC**  
CELBRIDGE ENGINEERING LAB  
TRAINING AND EDUCATION CENTRE

Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2



## Overview

The Universal Robots Operator Core Training provides the learner the opportunity to deepen their knowledge of a real cobot and learn the basic skills for programming. The learner will learn how to program various applications in training cells under realistic conditions. Core Training focuses on the programming of the cobot and does not primarily focus on the operation and handling of the robot.

This course is suitable for those who wish to learn how to program a robot in a practical way and implement the applications that are used the most.



## Content

- Safely program the robot in its basic functions
- Create and optimise programs for a wide variety of typical applications like pick-and-place, palletising, polishing or dosing
- Connect peripheral devices such as sensors, grippers or conveyor belts to the robot and control and query them from the robot program
- Integrate logics into the robot program
- Correctly configure the safety settings of the robot
- Use the tools and online resources that are available to you when programming applications

### Duration

2.5 Full Days in Centre  
9.00 - 16.30

### Target Learner

No prior knowledge of Universal Robots requires but should be working in related industry and hold qualification in related field at QQI level 6+ or equivalent

### Certification

Universal Robots Core Training Certificate

### Cost

This course is fully funded to those currently in employment under the skills to advance initiative





# Introduction to 3D Printing

  
CELBRIDGE ENGINEERING LAB  
TRAINING AND EDUCATION CENTRE  
Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2



## Overview

The Universal Robots Operator Core Training provides the learner the opportunity to deepen their knowledge of a real cobot and learn the basic skills for programming. The learner will learn how to program various applications in training cells under realistic conditions. Core Training focuses on the programming of the cobot and does not primarily focus on the operation and handling of the robot.

This course is suitable for those who wish to learn how to program a robot in a practical way and implement the applications that are used the most.



## Content

- Understand the process from taking a design through slicing, setting the slicing parameters, and set up a print
- Know how to use a 3D print material selector for selecting appropriate materials for their print Understand how different materials need different slicing settings and processing parameters, and the different types of supports required when slicing a model
- Understand the FDM process and understand how enhanced machine features aid successful printing
- Orientate a model in the slicing software for printing and set up the slicing parameters and advanced slicing settings
- Be able to conduct basic troubleshooting on the printer and with unsuccessful prints
- Be capable of identifying the different parts of a 3D printer
- Be able to set up the printer for different materials Be able to perform the monthly, 3 monthly and yearly maintenance tasks on the 3D printer

### Duration

2 Full Days in Centre  
9.00 - 16.30

### Target Learner

No prior knowledge of 3D Printing is required.  
Ability to understand technical concepts required.

### Certification

3D Certified User Certificate (accepted by Engineers Ireland as CPD)

### Cost

This course is fully funded to those currently in employment under the skills to advance initiative





# Introduction to Technical Writing



## Overview

This 1-day course offers the insights and techniques necessary to write quickly, accurately and clearly. It provides a systematic approach to planning, writing and editing instructional guides, incident reports, SOPs and even simple E-mails. The course will help you deliver quality documentation on time and in a professional manner.



## Course Content

- Getting the reader into focus
- Effective Writing Skills
- Planning, preparing and editing reports
- Specific Technical Reports
- Data Visualisation and Presentations
- The Writers Miscellany



**Duration**  
1 day In centre or on-site  
9.00 - 16.30

**Target Learner**  
Those working or are seeking to work in an industrial setting

**Certification**  
Certificate of Completion (Unaccredited)

**Cost**  
This course is fully funded to those currently in employment under the skills to advance initiative



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trotechnicalwriting

# PLC Based Discrete and Digital Automation



Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2



## Overview

Discrete or Digital automation encompasses the use of digital technology such as sensors, directional control valves, pick and place hardware, pneumatic actuator systems and a plethora of bespoke machinery in the manufacturing of discrete products in assembly lines and material handling areas. This form of automation is extensively used in the manufacturing and medical technology industries and widely used in other industries such as food and beverage, pharmaceutical, biopharmaceutical and chemical.

The course is 10% theory and 90% interactive using practical based exercises and is delivered over 2 days.

## Course Content

- Principle of operation of PLCs
- Fundamentals of digital signal processing
- Essential elements of communication with PLCs via TIA (Totally Integrated Automation)
- Ladder logic-based programming encompassing latches, interlocks, timers, counters, set/reset, on-off control and sequential control
- Data types & tagging philosophies
- Fault finding and resetting systems



### Duration

2 day In centre or on-site  
9.00 - 16.30

### Target Learner

Those looking to upskill and reskill in related industrial sectors.

### Certification

Certificate of Completion  
(Unaccredited)

### Cost

This course is fully funded to those currently in employment under the skills to advance initiative





# PLC Based Analog Automation



Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2



## Overview

Analog Automation involves the use of continuous signals to control and monitor processes using technology such as analog sensors & transducers, controllers, actuators, proportional solenoids and variable-speed drives are utilized to control processes where precise regulation of physical variables like temperature, pressure, flow and level is required. These systems are typically deployed in applications where real-time adjustments are necessary based on continuous input data. It is commonly employed in industries where real-time process control and high precision are critical, such as chemical processing, oil and gas, pharmaceuticals, food, beverage production power generation, and water treatment.

The course is 10% theory and 90% interactive using practical based exercises and is delivered over 2 days.

## Course Content

- Principle of operation of PLCs
- Fundamentals of analog signal processing
- Essential elements of communication with PLCs via TIA (Totally Integrated Automation)
- Ladder logic-based programming encompassing analog inputs & outputs, signal scaling, comparison & conditional logic, timers and continuous control
- Data types & tagging philosophies
- Fault finding and resetting systems



### Duration

2 day In centre or on-site  
9.00 - 16.30

### Target Learner

Those looking to upskill and reskill in related industrial sectors.

### Certification

Certificate of Completion  
(Unaccredited)

### Cost


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analogueauto](http://www.kwetbtrainingservices.ie/analogueauto)



# PLC Based Communications via HART



## Overview

The HART (Highway Addressable Remote Transducer) communication protocol is widely used in industrial automation systems, particularly for process control and field devices. HART allows bidirectional communication between smart field instruments (e.g., sensors, actuators) and control systems, enabling advanced diagnostics and configuration.

This course is 10% theory and 90% hands-on exercises, delivered over 2 days, ensuring participants learn through practical application in real-world scenarios.

**Duration**  
2 day In centre or on-site  
9.00 - 16.30

**Target Learner**  
Those looking to upskill and reskill in related industrial sectors.



## Course Content

- Introduction to HART communication protocol and architecture
- Understanding HART devices, smart instruments, and their integration into PLC systems
- Setting up and configuring HART communication networks (point-to-point & multidrop)
- Interfacing with HART devices via HART modems, communicators, and PLCs
- HART protocol troubleshooting and diagnostics
- Practical exercises in real-time monitoring and data exchange
- Advanced HART configuration and optimization
- Fault simulation and resolution in HART systems
- The course uses hands-on exercises and real-life examples to teach HART applications, PLC integration, and troubleshooting, with scenarios tailored to the learner's workplace.

**Certification**  
Certificate of Completion  
(Unaccredited)

**Cost**  
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🌐 <https://www.kwetbtrainingservices.ie/hart>



# PLC Based Communications via Modbus



## Overview

Modbus is a widely used protocol for industrial automation, enabling reliable communication between PLCs, sensors, actuators, and HMIs. Its simplicity and flexibility make it essential for real-time data acquisition and control in industries like manufacturing, water treatment, HVAC, and energy.

This two-day course is 10% theory and 90% hands-on exercises, focusing on practical, real-world applications.

**Duration**  
2 day In centre or on-site  
9.00 - 16.30

**Target Learner**  
Those looking to upskill and reskill in related industrial sectors.

**Certification**  
Certificate of Completion (Unaccredited)

**Cost**  
This course is fully funded to those currently in employment under the skills to advance initiative



## Course Content

- Principles of Modbus communication protocol (RTU, ASCII, TCP)
- Modbus master and slave configuration
- Modbus addressing, function codes, and data types
- Interfacing Modbus with PLCs and other industrial equipment, use of test simulation tools
- Modbus protocol troubleshooting and diagnostics
- Practical integration of Modbus in industrial systems
- Modbus data exchange with real-time monitoring systems
- Optimising Modbus communication for efficient data transfer
- The course uses practical exercises and real-life examples to teach Modbus applications, PLC integration, and troubleshooting in industrial automation. Scenarios can be tailored to the learner's workplace.



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# Deploying Control Strategies from Bang Bang to PID to PLC Systems



## Overview

Minimising production errors is key to optimizing production. This is achieved through control strategies within automation systems, reducing downtime, rework, and waste.

This course covers implementing and optimizing controller parameters for discontinuous (Bang Bang) and continuous (PID) control strategies. It focuses on how control systems respond to change and the impact of parameter adjustments.

With 10% theory and 90% hands-on exercises, the course runs over two days.



## Course Content

- Principle of operation of PLCs
- Fundamentals of the control parameters within the different control system strategies
- Essential elements of communication with PLCs via TIA (Totally Integrated Automation)
- Ladder logic-based programming to implement Bang Bang Control & PID Control
- Data types & tagging philosophies
- Fault finding and resetting systems

### Duration

2 day In centre or on-site  
9.00 - 16.30

### Target Learner

Those looking to upskill and reskill in related industrial sectors.

### Certification

Certificate of Completion  
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### Cost

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# PLC Based Automation and Human Machine Interfaces



Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2



## Overview

PLCs and HMIs are widely used across industries to enhance automation, control, and monitoring. PLCs manage systems using sensors and actuators, while HMIs provide real-time data, diagnostics, and control through graphical interfaces. Together, they improve efficiency, safety, and production in industries like manufacturing, pharmaceuticals, food and beverage, and chemicals.

This two-day course is 10% theory and 90% hands-on exercises.

## Duration

2 day In centre or on-site  
9.00 - 16.30

## Target Learner

Those looking to upskill and reskill in related industrial sectors.



## Course Content

- Principle of operation of PLCs
- Fundamentals of HMI design and layout to optimize interfaces to allow effective monitoring & control of systems
- Essential elements of communication with PLCs and HMIs via TIA (Totally Integrated Automation) using PROFINET.
- Ladder logic-based programming and HMI setup and interfacing encompassing PLC & HMI integration, data communication, control & monitoring, system optimization
- Data types & tagging philosophies
- Fault finding and resetting systems

## Certification

Certificate of Completion  
(Unaccredited)

## Cost

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# PLC Based Communications via ProfiNet



## Overview

PROFINET is a leading industrial Ethernet protocol enabling high-speed, real-time communication between PLCs, HMIs, Remote IO, and sensors. This course covers PROFINET architecture, configuration, and PLC integration, with hands-on training in setup, troubleshooting, and optimization.

Designed for practical learning, the two-day course is 10% theory and 90% hands-on exercises, using real-world scenarios for workplace application.

## Content

- Introduction to PROFINET: Overview of the protocol, architecture, and its role in industrial automation
- PROFINET Devices and Network Components: Understanding communication, field devices, and network topology
- Setting Up PROFINET Networks: Configuring and commissioning PROFINET systems, including addressing and GSD files
- Integration with PLCs: Interfacing PROFINET devices with PLCs for real-time data exchange and control
- Troubleshooting and Diagnostics: Identifying and resolving common issues such as signal integrity, addressing errors, and communication failures
- Practical Exercises: Hands-on activities in configuring, monitoring, and optimizing PROFINET networks
- Advanced Configuration: Techniques for optimizing network performance and reliability.
- Fault Simulation and Resolution: Simulating real-world faults and implementing strategies to resolve them

### Duration

2 day In centre or on-site  
9.00 - 16.30

### Target Learner

Those looking to upskill and reskill in related industrial sectors.

### Certification

Certificate of Completion (Unaccredited)

### Cost

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# PLC Based Communications via Profibus



## Overview

PROFIBUS DP is a widely used protocol in industrial automation, enabling high-speed data exchange between PLCs and field devices like sensors and actuators. This course covers PROFIBUS DP architecture, configuration, and integration, with hands-on training in setup, troubleshooting, and optimization. The two-day course is 10% theory and 90% hands-on exercises, using real-world scenarios for practical application

**Duration**  
2 day In centre or on-site  
9.00 - 16.30

**Target Learner**  
Those looking to upskill and reskill in related industrial sectors.

## Content

- Introduction to PROFIBUS DP: Overview of the protocol, architecture, and its role in industrial automation
- PROFIBUS DP Devices and Network Components: Understanding master-slave communication, field devices, and network topology
- Setting Up PROFIBUS DP Networks: Configuring and commissioning PROFIBUS DP systems, including addressing and GSD files
- Integration with PLCs: Interfacing PROFIBUS DP devices with PLCs for real-time data exchange and control
- Troubleshooting and Diagnostics: Identifying and resolving common issues such as signal integrity, addressing errors, and communication failures
- Practical Exercises: Hands-on activities in configuring, monitoring, and optimizing PROFIBUS DP networks
- Advanced Configuration: Techniques for optimizing network performance and reliability.
- Fault Simulation and Resolution: Simulating real-world faults and implementing strategies to resolve them

**Certification**  
Certificate of Completion (Unaccredited)

**Cost**  
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# PLC Based Kinematic Systems



THE DUBLIN SOUTH WEST INDUSTRIAL DISTRICT AND SATELLITE DEVELOPMENT TRUSTEES **CELBRIDGE ENGINEERING LAB**  
TRAINING AND EDUCATION CENTRE

Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2

## Overview

 Kinematics-based automation controls motion systems for precise positioning in industries like manufacturing, robotics, and assembly. Using PLCs with motors, actuators, and sensors, it optimises production. The course focuses on developing skills to program and control PLC-based kinematic systems, as well as troubleshooting motion-related issues and optimising system performance.

This course (10% theory, 90% hands-on) spans two days, focusing on programming, troubleshooting, and performance optimization.

## Content

- Principles of operation for PLCs in kinematic systems
- Fundamentals of motion control and kinematics
- Integration of motors, actuators, and sensors with PLCs for precise motion control
- PLC programming for controlling kinematic systems (e.g., conveyors, robotic arms)
- Troubleshooting motion control and feedback devices
- Techniques for system optimisation and performance enhancement
- Real-time monitoring and diagnostics for motion-based automation
- Fault simulation and resolution in PLC-controlled kinematic systems

### Duration

2 day In centre or on-site  
9.00 - 16.30

### Target Learner

Those looking to upskill and reskill in related industrial sectors.

### Certification

Certificate of Completion  
(Unaccredited)

### Cost

This course is fully funded to those currently in employment under the skills to advance initiative




# PLC Based Automation of Industry using Simulation



Unit A12,  
M4 Business Park,  
Celbridge  
Co Kildare W23 HCK2

## Overview



PLC-based process and manufacturing simulation uses virtual environments to control and simulate industrial processes like assembly lines, conveyors, pumps, and motors. This course teaches participants to program and control complex systems using PLC simulation tools, without the need for physical hardware. It focuses on designing, troubleshooting, and optimizing automated systems in a cost-effective environment.

Ideal for industries in manufacturing automation and process control, the course is 10% theory and 90% hands-on exercises over 2 days, emphasizing practical application. Add a subheading


### Duration

2 day In centre or on-site  
9.00 - 16.30

### Target Learner

Those looking to upskill  
and reskill in related  
industrial sectors.

## Content

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- Introduction to PLC-based simulation for process and manufacturing systems
  - Understanding process control, automated production lines, and motion systems in simulation
  - Using PLC simulators to design and control manufacturing systems, including conveyors, process vessels, and pump systems
  - PLC programming for real-time process control in a virtual environment
  - Troubleshooting virtual process and manufacturing systems and resolving common faults
  - Techniques for optimising system performance in a simulated environment
  - Real-time diagnostics and fault simulation within PLC simulators for process and manufacturing systems

### Certification

Certificate of Completion  
(Unaccredited)

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Contact our  
Enterprise  
Engagement Team



**Bernice McLaughlin,**  
Enterprise Engagement Officer Kildare  
[bernicemclaughlin@kwetb.ie](mailto:bernicemclaughlin@kwetb.ie)

**Olivia Knight,**  
Enterprise Engagement Officer Wicklow  
[oliviaknight@kwetb.ie](mailto:oliviaknight@kwetb.ie)



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