



ELECTRICAL & PROGRAMMABLE AUTOMATION

**STARTING
AUGUST 2020**



Athlone **Training** Centre
training for your future



COMPONENTS

**ELECTRICAL AND
ELECTRONIC CONTROL
SYSTEMS 6N5747**

**PROGRAMMABLE
AUTOMATION 6N5746**

- QQI Level 6 Award
- Opportunity to gain work experience in an industrial environment

COURSE AIM

The aim of this course is to provide industry with personnel trained in Electrical Engineering principles and is used to control, amongst other things, industrial production lines. Graduates from this course frequently take up employment as Maintenance Technicians in modern automated industries.

The course is a QQI Level 6 programme. You will cover two broad areas: Electrical Electronic Control Systems and Programmable Automation. It is desired that you will have experience in some of, if not both, of these two areas. A considerable commitment to study of both these modules is required as outlined below.

An interview and aptitude test will form part of the selection process.

DURATION

The Electrical and Programmable Automation is a fulltime blended learning course and runs for 30 weeks, 15 weeks per module in the Athlone Training Centre. The course will consist of 2 days a week in the Training Centre and 3 days a week studying online.

There is a option of an additional 8 weeks in company work experience working in a suitable industrial environment at the end of the programme, to those wishing to avail of it.

IS THIS FOR YOU?

- Has a craft qualification in engineering or perhaps you are a fitter, electrician or motor mechanic?
- Holds a third level qualification electrical or mechanical engineering?
- Has experience working in the maintenance area of the manufacturing production environment?
- Wants to work in the automated industrial environment?
- Has good numerical skills?
- Communicates well, verbally and in writing and works well as part of a team?

ARE YOU SOMEONE WHO?



COURSE MODULES

ELECTRICAL AND ELECTRONIC CONTROL SYSTEMS

The theory and practical related to electrical/electronic and closed loop control systems.

The construction of motor control circuits and the carrying out of maintenance test procedures for the commissioning and repair of electrical and electronic control equipment.

PROGRAMMABLE AUTOMATION

The programming, interfacing and use of PLC's (programmable logic controllers), HMI's (human machine interface) & VSD (variable speed drives). Incorporating system design, construction and commissioning of discrete and analog devices. Fault finding on PLC controlled equipment integrating pneumatics, electrical and electronic systems.

PLC's are dedicated industrial computers that control automated processes.

ON COMPLETION OF THESE MODULES TRAINEES WILL BE ABLE TO COMPLETE THE FOLLOWING:

ELECTRICAL/ELECTRONIC CONTROL SYSTEMS 6N5747

- Understand the relationship between current, voltage and resistance in AC & DC circuits.
- Make meaningful electrical measurements to diagnose faults in electrical/electronic systems
- Use their knowledge of the operation of electrical/electronic systems to diagnose faults therein
- Interpret and prepare circuit diagrams for motor and closed loop control systems

PROGRAMMABLE AUTOMATION 6N5746

- Program and use PLC's HMI's, VSD's in industrial applications
- Program, edit and test PLC & HMI -programs

COURSE EXAMINATIONS AND CERTIFICATION

A QQI Level 6 Special Purpose Award in Electrical and Programmable Automation Award will be granted to Trainees who successfully complete their exams.

Trainees on this course are required to sit exams/assessments on the following modules

ELECTRICAL AND ELECTRONIC CONTROL SYSTEMS

- Construction of a motor controlled system (Assignment)
- Construction of a closed loop controlled system (Assignment)
- Fault finding (Practical & Assignment)
- Theory test

PROGRAMMABLE AUTOMATION

Design construct and demonstrate the operation of a PLC controlled system (Project)

- Fault find using PLC diagnostic tools (Practical Examination)
- Theory test

FOR FURTHER INFORMATION CONTACT

Athlone Training Centre, Garrycastle, Athlone, Co. Westmeath

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