AUTOMATION & CONTROLS ENGINEERING TECHNICIAN Apprenticeship

EMPLOYER FACTSHEET

GROW YOUR OWN TALENT

This occupation is found in cross sector (e.g. Automotive, Food & Drink, Oil & Gas, Pharmaceutical, Construction), companies involved in manufacturing (discrete or process), logistics or utilities environments. These employers may be directly involved in these activities or as a provider of services (e.g. systems integration, field service, technical consultancy) to these companies.

Key Information

Level	4
Duration	Typically 48 months
Entry requirements	- 16 years or over. - Please contact our Apprenticeship team for further entry requirements.
Delivery	A minimum of 30 hours of on the job training at work place, 2 days per week including a day to study at our Uxbridge campus
Typical job titles	Automation and controls engineering technician.
Qualifications	**English and maths qualifications** Apprentices without level 2 English and maths will need to achieve this level prior to taking the End-Point Assessment. For those with an education, health and care plan or a legacy statement, the apprenticeship's English and maths minimum requirement is Entry Level 3. A British Sign Language (BSL) qualification is an alternative to the English qualification for those whose primary language is BSL.
Other mandatory qualifications	Technical engineering qualification covering at least one of the following areas: Electrical/Electronic Engineering, General Engineering, Manufacturing Engineering, Operations Engineering.

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We are a top provider in London with consistently high success rates

We are the largest college group providers of apprenticeships in west London

We work with major companies including British Airways, Brunel University London & Menzies etc.

Most of our apprentices secure employment at the end of their apprenticeship

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Employers involved in creating this standard:

Siemens, Amazon, Toyota UK, Bentley Motors, Mondelez, Omega, Mechatronics international UK, Bae Systems, Kuka Robotics, Fairfield Control Systems.

01895 853622/ 0208 909 6328

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Occupation summary

The broad purpose of the occupation is twofold.

Where the role is based inside a manufacturing (discrete or process), logistics or utilities environments, a fully competent Automation & Control Engineering Technician will be able to install, maintain, fault find and optimise hardware and software for automation systems.

Where the role is based in a service provider, OEM (Original Equipment Manufacturer) or approved solutions provider in large or SME (Small to Medium Enterprise) companies, the Automation & Control Engineering Technician will be the interface between the vendor and it's customer and will be able to competently provide high quality, engineering services such as installation, commissioning, fault finding (the activity of testing an installation prior to handover) and support.

For both iterations of this role, this would involve the above duties across a range of hardware such as on Programmable Logic Controllers (PLC), Human Machine Interfaces (HMI), robots and Industrial Networks (e.g. PROFIBUS, DeviceNet, PROFINET, ModBus). Use of physical tools, software tools and instruments (e.g. multi-meter), are fundamental to carrying out tasks associated with building (e.g. control panels), installing (e.g. site cabling) and maintaining of automation systems.

This occupation will give employers the ability to maintain successful operational capability.

Sample occupation duties

Duty	
Duty 1 Setup of a wide range of hardware and software found on industrial networks and control systems including, but not limited to PLC's, Robots, Human Machine Interfaces (HMIs), Supervisory Control and Data Acquisition (SCADA) systems, variable speed drives, soft-starters, energy monitoring equipment, instrumentation, safety systems and servo drives	The set-up duty is concerned with the preparation of devices either on the control system itself or devices such as laptops on which programming and set-up tools will be deployed. This duty can take place during commissioning or as a result of making a change or replacing devices of an existing operational system. Criteria for measurement: - - Software installed on PCs correctly, using the right version of the software for the hardware being configured. - Hardware settings correctly applied to devices to meet specifications of the job. - Systems made operational after changes or updates including configuration / re-configuration via software tools - All safety standards met or exceeded - Devices set up correctly using manufacturers technical information.

Knowledge

K1: Engineering maths - mathematical principles and theories that underpin engineering
K2: Engineering principles - the underlying principles of electrical and electronic circuits and devices
K3: Functional solutions - Create functional solutions; identifying and justifying a solution to a given engineering need

Behaviors

B1: Zero Harm - Always prioritise on Health and Safety best practice
B2: esilience - Sound and established ability to work effectively both in a team and alone
B3: Personal excellence - Interact professionally with clients and stakeholders

Skills

S1: Safety Effective - The ability to work safely in an industrial environment and where required, produce risk assessment/method statement documentation. Be able to apply the principles of functional machinery and/or process safety including SIL (Safety Integrated Level) and PL (Performance Level) terminology
S2: Engineering documentation - Production and interpretation of a range of technical documentation (device manuals, operating procedures,

Frequently Asked Questions

What is new apprenticeship standard?

Apprenticeships in England are changing. Because of government reforms, a new style of apprenticeships has been designed to meet the needs of employers, learners and providers.

How will I be assessed?

You will be assessed continually in knowledge, skills and behaviour areas at work. Towards the end of the apprenticeship, employers and providers will 'sign-off' the apprentice as ready for the end-point assessment (EPA).

Signing-off an apprentice indicates the employer and providers believe their knowledge, skills and behaviours are the level required to gain an apprenticeship. This sign-off is called the 'gateway'.

An end-point assessment (EPA) is a collection of assessments that offers confirmation of knowledge, skills and behaviours for a particular role. The EPA must be achieved before an apprenticeship certificate can be issued. The assessment organisation and the assessor must be independent of, and separate from the training provided by the provider and employer.

Do I already need to have a job to start an apprenticeship?

You should be working a minimum of 30 hours per week in a job. If you are unemployed, view our vacancies to apply for a job:

www.hruc.ac.uk/apprenticeships

Can I start an apprenticeship after Year 11?

Yes, you can! Young people in England must stay in education or training until they turn 18. If you're looking for a different option after Year 11, an apprenticeship could be the answer for you!

How much does an apprenticeship cost?

There is no cost for you to do an apprenticeship if you are 16 years old or over and you will be paid a wage.

View our vacancies to apply

www.hruc.ac.uk/apprenticeships

Already working? Upskill!

Turn your job into an apprenticeship. Call us on **01895 853622 / 0208 909 6328** to get you started.