AACME

# Powertrains Technician – Electrical Bias

## Job Ref: REQ250534

**As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.**

**Loughborough University's Technician Commitment**
Loughborough University is a signatory of the national Technician Commitment Scheme which pledges to ensure the visibility, recognition, career development and sustainability of their technical staff. The successful candidate will therefore be joining a thriving and visible community of staff with opportunities for collaboration and networking, and a clearly defined career pathway against which they can map and plan their own professional development and career progression.

**School summary**
The postholder will work in the School of AACME, based in the Department of Aeronautical and Automotive Engineering
Aeronautical and Automotive Engineering. https://www.lboro.ac.uk/departments/aae/
Chemical Engineering https://www.lboro.ac.uk/departments/chemical/
Materials Engineering https://www.lboro.ac.uk/departments/materials/

## Job Description

**Job Grade:** Grade 5, Technical Teaching and Specialist (TTS)

**Job Purpose**
The postholder will support the Powertrains research laboratories and electronics workshop by providing hands-on assistance in electrical and electronic tasks related to powertrain systems. This includes support for petrol, diesel, and alternative fuel engine rigs, along with basic engine diagnostics, wiring, data acquisition, and system setup. While prior experience is valuable, we welcome applicants with a fundamental understanding and a strong desire to develop practical skills in this area. Ongoing training and support will be provided to help the successful candidate progress in their technical career.

**Job Duties**

- Support basic engine diagnostics by connecting and operating diagnostic tools, interpreting outputs, and assisting with fault investigation during testing activities.
- Support electronic and electrical setup for research and teaching activities, including wiring, soldering, sensor fitting, and DAQ system installation.
- Assemble, test, and maintain powertrain-related electronic systems, including ECUs, control units, and diagnostic interfaces.
- Diagnose faults in test equipment and electrical systems, replacing or modifying components as required.
- Assist in the setup and running of engine test rigs, including wiring looms, CAN systems, signal conditioning, and data logging.
- Follow and implement Health & Safety procedures, including completing risk assessments and ensuring safe lab practices.
- Produce and maintain clear documentation such as wiring diagrams, SOPs, test logs, and inventory records.
- Provide basic guidance to students on the correct and safe use of electronic lab tools and test equipment.

- Undertake general tasks as directed by the Line Manager, including supporting open days and visits to external facilities.

**Points To Note**

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

**Special Conditions**

All staff have a statutory responsibility to take reasonable care of themselves, others, and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University's Equity, Diversity, and inclusion policy and procedures at all times. Duties must be carried out in accordance with relevant Equality, Diversity and Inclusion legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Belonging and Inclusion, Health and Safety, Information Security, and where appropriate, Recruitment and Selection.

## Person Specification

Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

1 – Application
2 – Test/Assessment Centre/Presentation
3 – Interview

**Essential Criteria**

| Area | Criteria | Stage |
|---|---|---|
| Experience | Experience of working in an electrical or electronic environment related to automotive or powertrain systems. | 1,3 |
| | Experience of wiring, soldering, and assembling electronic components and circuits. | 1,3 |
| | Experience or awareness of using engine diagnostic tools (e.g. fault code readers, live data logging) in a workshop or test environment. | 1,3 |
| | Experience of using and maintaining diagnostic tools, test instruments, or data acquisition systems. | 1,3 |
| | Experience of interpreting basic wiring diagrams and circuit layouts. | 1,3 |
| | Experience of working safely in a lab or workshop environment in line with Health & Safety procedures. | 1,3 |
| | Experience of supporting practical setups for teaching or research (e.g., rig wiring, instrumentation, or test preparation). | 1,3 |
| Skills and abilities | Ability to carry out basic fault-finding and repair of electronic equipment and systems. | 1,3 |
| | Ability to follow technical documentation, wiring diagrams, and assembly instructions accurately. | 1,2,3 |
| | Ability to use workshop tools and electronic hand tools safely and effectively. | 1,2,3 |
| | Ability to work independently and prioritise tasks to meet technical requirements. | 1,3 |
| | Good communication skills, with the ability to explain procedures clearly to students or colleagues. | 1,2,3 |
| | Ability to maintain electronic documentation and inventory records accurately. | 1,3 |
| | Familiarity with Microsoft Office and Outlook 365 for basic documentation, scheduling, and communication. | 1,2,3 |
| Training | Proven commitment to ongoing professional development, including mandatory and role-specific training. | 1,3 |
| | Willingness to learn new skills, undertake hands-on training, and develop practical capability in electronics, instrumentation, and test support. | 1,3 |
| Equity, Diversity and Inclusion (EDI) | Commitment to understanding EDI challenges and observing University EDI guidelines. | 1,3 |

| Area | Criteria | Stage |
|---|---|---|
| Qualifications | Level 3, or equivalent qualification, in a relevant subject, including but not limited to: SVQ/NVQ Level 3/Two A Levels in relevant subject(s) and 5 GCSEs (including Maths and English)/Level 3 Vocational Awards/Advanced Vocational Certificate of Education (AVCE)/BTEC National Diploma/Ordinary National Certificate/Diploma (ONC/OND)/or equivalent qualification in another country.<br><br>*While a Level 3, or equivalent, qualification is preferred, we also welcome applications from candidates with a fundamental knowledge of electronics and a strong willingness to develop in this field. Training and development opportunities will be provided to support progression.* | 1 |
| | City & Guilds, ONC, BTEC or Higher. If essential criteria are not met, then significant relevant experience will be considered. | 1 |
| Other | Willingness to provide support for events, such as University open and visit days (occasional Saturday working may be required). | 1,3 |
| | Willingness to travel for work purposes, such as visiting suppliers, training and professional development. | 1,3 |
| | Hold a Full, clean, current valid UK Driving Licence | 1 |

**Desirable Criteria**

| Area | Criteria | Stage |
|---|---|---|
| Experience | Experience of providing technical support in a relevant setting, supporting either teaching and learning or research activities. | 1,3 |
| | Experience of either operating, testing and maintaining equipment | 1,3 |
| | Experience of purchasing equipment and consumables within agreed budgets, in accordance with organisation procurement policies. | 1,3 |
| | Experience of complying with relevant standards and Health and Safety regulations | 1,3 |
| | Experience of providing teaching and learning support to students, including practical demonstration & instruction. | 1,3 |
| Skills and abilities | Ability to co-ordinate and supervise the work of others. | 1,3 |
| | Ability to use common Microsoft Office software to a good standard. | 1,2,3 |
| | Knowledge of Automotive Electrical systems | 1,2,3 |
| | Experience in the control of electric motors and drives | 1,2,3 |
| | Experience in the use of LabView or similar data acquisition systems | 1,2,3 |
| Training | Willingness to take on wider University roles on behalf of the School/Service, such as Health & Safety or other roles. | 1,3 |
| Other | Current driving license (to meet University requirements for driving University/hired vehicles). | 1,3 |

## Conditions of Service

The position is **full time** and **open-ended**. Salary will be on the **Technical Teaching and Specialist** job family at **Grade 5, £29,179 - £34**,**132 per annum**, at a starting salary to be confirmed on offer of appointment. The appointment will be subject to the University's Terms and Conditions of Employment for staff grades 1-5, which can be found at: https://www.lboro.ac.uk/services/hr/conditions-of-service/.

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which can be found at: http://www.lboro.ac.uk/services/hr/support/

The University offers a wide range of employee benefits, which can be found at: http://www.lboro.ac.uk/services/hr/benefits/

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme, which can be found at: https://www.lboro.ac.uk/services/hr/topics/childcare-support/

In addition, the University is supportive, wherever possible, of flexible working arrangements.
We also strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. Further information on Athena SWAN can be found at: http://www.lboro.ac.uk/services/hr/athena-swan/

## Applications

The closing date for receipt of applications is **31st July 2025**. Interviews will be held shortly afterwards.