

## Powertrains Electrical /Electronics Technician and Electronics Workshop Technician

Job Ref: **REQ230092**

**As part of the University's ongoing commitment to redeployment, please note that these vacancies may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.**

### School/Department summary

The School of Aeronautical, Automotive, Chemical and Materials Engineering is one of ten Schools within the University providing teaching, research and enterprise to undergraduate and postgraduate students and staff. The School is staffed by a team of 37 technicians with wide ranging skills and expertise who provide support to academic, administrative and research staff and to students.

The Department of Aeronautical and Automotive Engineering is staffed by about 20 mechanical and electronic technicians.

Our powertrains facilities, comprise of a newly invested hub mounted Chassis Dynamometer, 8 state-of-the-art engine test cells that house advanced thermodynamic and optical single cylinder and multi-cylinder car and heavy duty engines and electrical drivetrain with advanced instrumentation, including fully transient dynamometers. This is a very interesting and varied working environment in which suitable candidates can apply and develop their skills.

Our electronics workshop provides technical electrical / electronic support to the school.

### Job Description

**Job Grade:** Technical Services Grade 5

### Job Purpose

To provide skilled electrical/electronic technical engineering support for academic staff, students and researchers using the Powertrains research laboratories and electronics workshops.

### Job Duties

- **Both roles** include working with academic, technical and research staff in a range of projects. To assist in the design and maintenance of devices and experimental equipment in all areas.
- To carry out testing and fault diagnosis on a variety of equipment and machines, powertrain and associated electrical systems, replacing, and modifying component parts where necessary.
- To be responsible for setting up and maintaining specialised electronic sampling, measuring and analytical equipment and diagnosing faults in this equipment. To install instrumentation and data acquisition systems and to assist with analysis of results. Where post-holders lack skills in these areas, training will be given.
- To install/maintain electrical equipment including single phase and three phase items. To assist with electrical safety across the school.
- Contribute to project planning and management. For example, provide technical, design and manufacturing advice to the group in relation to new equipment and specialised training. Provide cost and time estimates for project work.

- To provide support in maintaining schedules of work for laboratory equipment, maximising usage, and balancing the requirements of different groups or staff.
- To ensure all equipment and facilities are maintained to a high standard and ensure a safe working environment is maintained through compliance with Health and Safety regulations and the University's safety procedures. To conduct Risk and COSHH assessments and maintain records of hazardous substances used.
- To attend planning and progress meetings and to assist with demonstrations of research equipment to visitors.
- To undertake training as required to meet the needs of the research projects.
- Demonstrating equipment to external visitors and students. To assist with taught laboratory sessions.
- To visit external test facilities and provide field support as required.
- To procure goods or services, when required, in support of teaching and research activities. A full valid / current UK driving licence required.
- To assist with technical duties in other workshops if requested due to variations in workload. To carry out any other duties required and are commensurate with the nature and grade of the role.
- The Power Trains role also includes testing engines and electric vehicle systems and to assist with the running of experiments.

### **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 always observing the University's Equality & Diversity policy and procedures. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University's mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

### **Organisational Responsibility**

Reports to the Technical Manager and the Engines and Powertrains Supervisor.

## 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 gained within an Electrical / Electronic or automotive or other relative engineering environment.	1, 3
Skills and abilities	Competent knowledge of electrical and electronic systems and techniques.	1, 3
	Able to work with precision and safety and to meet deadlines.	1, 3
	Able to use own initiative to prioritise workload and deal with pressure at work.	1, 3
	High level of flexibility and dependability.	1, 3
	Understanding of relevant Health and Safety Legislation.	1, 3
Training	Be willing to adopt new procedures as and when required.	3
	Be prepared to undertake further training both internally and externally.	3
Qualifications	City & Guilds, ONC, BTEC or higher. If essential criteria not met, significant relevant experience will be considered.	1
Other	To always observe the University's Equal Opportunities policy.	3
	To comply with Health & Safety Regulations.	3
	To observe the University's Operational Procedures.	3
	Hold a full valid / current UK driving licence.	1,3

### Desirable Criteria

Area	Criteria	Stage
Experience	Previous experience working within an electrical/electronic department, workshop, or a research and development environment.	1, 3
Skills and abilities	Knowledge automotive electrical systems	1, 3
	Ability to use conventional workshop machinery and hand tools.	1, 3
	Experience in the control of electric motors and drives.	1, 3
	Experience in the use of <i>LabView</i> or similar data acquisition systems	1, 3
	IT literate and experience in the use of standard office software.	1, 3
	Knowledge of computerised design and manufacturing techniques. e.g. CAD/CAM, Autocad	1, 3
	Experience in the use of rapid prototyping	1, 3
	Previous experience working with students and/or researchers.	1, 3

	Able to work at heights.	1, 3
Training	To be able to demonstrate continued vocational training.	3
Qualifications	Served a recognised C&G engineering apprenticeship.	1

## Conditions of Service

The positions are full-time and open-ended. Salary will be on Technical Services Grade 5, £26,396 to £31,411 per annum, at a starting salary to be confirmed on offer of appointment.

The appointment will be subject to the University's normal Terms and Conditions of Employment for Academic and Related staff/Operational and Administrative staff, details of which can be found [here](#).

The University is committed to enabling staff to maintain a healthy work-home balance and has a number of family-friendly policies which are available at <http://www.lboro.ac.uk/services/hr/a-z/family-leave-policy-and-procedure---page.html>.

We also offer an on-campus nursery with subsidised places, subsidised places at local holiday clubs and a childcare voucher scheme (further details are available at: <http://www.lboro.ac.uk/services/hr/a-z/childcare-information---page.html>)

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. For further information on Athena SWAN see <http://www.lboro.ac.uk/services/hr/athena-swan/>