

PLASMA POWER GROUP TECHNICIAN

Job Ref: REQ180011

As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

School/Department summary

The Wolfson School of Mechanical, Electrical and Manufacturing Engineering is one of the UK's largest engineering schools. It is home to around 250 academic and research staff, 92 professional staff, 2000 undergraduate students, 180 post graduate MSc students and 215 research students.

Wolfson's Plasma and Pulsed Power Group has the overall aim of researching in the field of high power electrical and electronic engineering in support of a number of sectors including security.

Job Description

Job Grade: Technical Services Grade 5

Job Purpose

Reporting directly to Group Leader, you will be responsible for the overall maintenance of the workshop area and supervision of its staff/users. To design, development, build, and install unique mechanical, electrical and electronic equipment and dedicated instrumentation systems to meet the Groups various Project and Facility requirements. This will include creating new test rigs and modifications of existing test equipment and rigs.

Job Duties

Using a high degree of technical expertise, providing manufacturing assistance and recommendations to academic and research staff and students at all levels including:

- Taking overall responsibility for the research workshop, gas supply and pressurized systems including gas bottles, recovery pumps, oil pumps, drums, water pumps and purification equipment and all the other important low voltage (single or three phase) electromechanical items of the Plasma and Pulsed Power Group Area.
- The manufacture, repair, development, construction and commissioning of equipment, rigs and models using a full range of conventional and CNC machine tools, bench equipment and fabrication / welding equipment.
- Carrying out construction and modification of sophisticated HV research equipment, including special devices working with high pressure gases or high explosives. Also, the activity would require the repair and modification of existing pulsed power generators. This will require the use of workshop machinery.
- The maintenance of equipment and machinery involving pipework and vacuum components.
- To provide goods and services when required, in support of the groups research activities.
- Provide general assistance in the conduct of experimentation, normally based in our Loughborough Labs but sometimes also at remote sites.

- To oversee and co-ordinate the provision and execution of “Portable Appliance Testing covering as appropriate, initial equipment test, creation of item history, schedule output and maintenance, test equipment maintenance and availability, reports and closure of resulting actions.
- To ensure that a safe working environment is maintained at all times, especially during experimental activities. Maintaining best practice and compliance with statutory Health, Safety and Environmental legislation and University operational procedures and codes of practice including Risk Assessments, COSHH, to ensure the University and legislative requirements are being met.
- Maintaining a clean and safe lab and workshop environment throughout all operations and maintaining stock material, consumables and equipment levels.
- To ensure that a safe working environment is maintained at all times through compliance with Health and Safety at Work legislation and the University’s Operational Procedures. Carry out Health and Safety and Housekeeping Audits and report on; overseeing the safe use and maintenance of equipment in the workshop, including the training and supervision of colleagues from other parts of the Centre who may need to use facilities on an ad-hoc basis.

Wider Technical Duties & Responsibilities

- To work closely with School’s Technical Resource Manager and the Lab Manager to improve working practices (Best Practice) to ensure that service levels are identified and reviewed effectively. To develop and regularly review processes and systems, also to ensure that these systems are safe and effectively communicated and practiced.
- To participate fully in the School’s PDR process and undertake training and development identified through this process and to conduct PDR’s in a constructive and professional manner and produce actions to manage and enhance performance and the personal development of the team member reviewed.

Behavioural Expectations

- To maintain an active approach to CPD (Continual Professional Development). Participate fully in the University’s PDR (Performance and Development Review) Scheme, identifying and agreeing developmental opportunities for personal and professional development and in response to changing needs within the Centre.
- Portray a positive “can do” “make it happen” attitude to enable staff to achieve their goals and the school achieve its ambitions.
- A flexible approach to working hours is required due to the inevitable evening and occasional weekend working requirements of the position.

Performance Measures

Performance measures will be used to ensure delivery and performance are maintained. The PDR process will outline specific measures; however the following examples could be used in the first instance.

- To complete Health and Safety, COSHH & House Keeping Audits throughout the area of responsibility. Ensure actions are completed and any formal reports completed. Maintain a record of audits and future planning.
- To ensure facility availability. (Opening hours, planned maintenance, breakdown management)

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 Equality & Diversity policy and procedures at all times. 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.

Required to sign Confidentiality Agreements including the Official Secrets Act and to apply for obtaining a Security Clearance.

Organisational Responsibility

Reports directly to the Plasma and Pulsed Power Group Leader

Supervision received:- Minimal

Directly responsible for:- Technician and Workshop Resources for the group

Other Task Managers:- Wolfson School Technical Resource Manager

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	Substantial experience of working in an engineering environment, including electromechanical systems and test rigs, pipe and gas systems and HV	1, 2, 3
	Evidence of a recognised Engineering apprenticeship or equivalent experience	1, 3
	Demonstrable experience of equipment repair and maintenance	1, 3
Skills and abilities	Proven reliability and able to apply own initiative, with minimal supervision. High level of flexibility	1, 3
	Skilled in electro-mechanical systems including fitting, welding, assembly, installation and test	1, 2, 3
	Skilled in the use of workshop machines and hand tools	1, 3
	Ability to work effectively as part of a team, with excellent interpersonal skills	1, 3
	Evidence of being organised and able to plan team objectives to meet deadlines.	1, 3
	Sound knowledge and understanding of current Health, Safety and Environmental legislation	1, 3
	Competence in IT skills	1, 3
Training	A willingness to undertake further training as appropriate and to adopt new procedures in line with the changing needs of the business.	1, 3
	Demonstrate evidence of having undertaken further training	1, 3
Qualifications	Advanced C&G or BTEC Higher National Certificate / Diploma in Mechanical Engineering, Electrical/Electronic Engineering or equivalent	1, 3
Equality and Diversity	Evidence a good working knowledge of equal opportunities and understanding of diversity in the workplace	1, 3
Other	Commitment to observing the University's Equal Opportunities policy at all times.	1, 3
	Willing to travel	3

Desirable Criteria

Area	Criteria	Stage
Experience	Previous experience working with students and researchers	1, 3
	Previous experience of working in a tool room, manufacturing or research and development workshop and an understanding of the issues to be faced in such a workshop	1, 3
Skills and abilities	Previous experience of Gas Pipework and systems	1, 3
	Working of competence in Computer Aided Design (CAD) software packages	1, 3
	Previous experience of wiring instrumentation and safety systems (sensors, interlocks, etc.)	1, 2, 3
Qualifications	Licensed to drive in the UK	1, 3

Conditions of Service

The position is full time and fixed-term for 2 years, extendable subject to research funding. Salary will be on Technical Services Grade 5 (£24,285 - £28,936 per annum) at a starting salary to be confirmed on offer of appointment. Subject to annual pay award.

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/>

Informal Enquiries

Informal enquiries should be made to Bucur Novac, Group Leader by email at B.M.Novac@lboro.ac.uk or by telephone on +44 (0)1509 227048

Applications

The closing date for receipt of applications is **18 February 2018**.