

## Senior Technician(s)

Job Ref: REQ16590

**As part of the University's ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.**

We are looking for two senior technicians on a full or part time basis, to support the Engineering and Physical Sciences Research Council funded SYMETA Grand Challenge Project: Synthesizing 3D Metamaterials for RF, microwave and THz applications. The roles will be based in the Wolfson School of Mechanical, Electrical and Manufacturing Engineering and work closely with colleagues from Materials Engineering within the School of Aeronautical, Automotive, Chemical and Materials Engineering. As we are looking for colleagues with the varied expertise needed for the manufacturing and materials engineering aspects of the work to be performed applications for full or part-time (minimum 0.6 FTE) roles will be considered. ▾

Loughborough University is the home of world leading engineering. We have an international reputation for being at the forefront of technological innovation and for maintaining extensive links with industry.

**The Wolfson School of Mechanical, Electrical and Manufacturing Engineering** is one of the largest engineering schools in the UK, comprising 133 academic staff, 129 research staff, 300 PhD students, 39 administrative staff, 54 technicians and 21 management and specialist staff. We aim to provide international leadership in research and innovation and an unrivalled educational experience.

The vision for our research endeavours is to provide world leading engineering solutions to today's global challenges. Research grants, principally from the UK Research Councils and the EU, and extensive industrial collaborations generate annual research funds currently in excess of £10M/year and provides a portfolio at present of >£52M.

In addition to holding two prestigious Queen's Anniversary Prizes for our research, we are currently home to three EPSRC national centres, for Innovative Manufacturing in Regenerative Medicine, for Innovative Manufacturing in Intelligent Automation and a Centre for Doctoral Training in Embedded Intelligence. We are also lead collaborators in an additional three EPSRC Centres for Innovative Manufacturing and another four Centres for Doctoral Training.

The breadth of our research activity is captured in our six Research Themes, that are populated and resourced from our fifteen research groups and four research centres. Our themes focus our attention on the global challenges that engineering can respond to, including: energy engineering, engineering for health, engineering systems, advanced manufacturing, communications and engineering design and analysis.

Supporting us and helping to ensure that our output reaches and benefits society at large are our strong partnerships with many of the leading British and global technical and engineering organisations. We deliver real impact through our collaborative partnerships with organisations across the world, adding wide-ranging value to our partners.

Our research and development activity is second to none, aimed at engaging with the wider community and commercial activity as a part of our *research that matters* culture throughout the University.

**The Materials Engineering Department, ranked 2<sup>nd</sup> in the country (The Guardian University League Tables)**, within the School of Aeronautical, Automotive, Chemical and Materials Engineering has been thriving at the University for nearly 50 years, contributing to the advancement of the field through teaching, research and enterprise activities. There are currently 21 members of academic staff in the Department and a student population in the region of 380.

The Department's research focuses on advanced engineering materials, their processing, design, and applications. We have state-of-the art, world-class facilities for use in materials synthesis, processing and characterisation, which support both our research and teaching. The Loughborough Materials Characterisation Centre is considered to be one of the best facilities of its kind in Europe.

Our research activities are organised into 5 key areas; energy materials, nano materials, processing, surface engineering and sustainability. However, we adopt an interdisciplinary approach to our research and frequently interact with other departments and Research Schools.

SYMETA is a collaborative research project launched on 1<sup>st</sup> March 2016 with funding for five years. Loughborough University is leading the project in collaboration with the Universities of Exeter, Oxford, Sheffield and Queen Mary University London. Several companies are also contributing to the research. SYMETA's overarching aim is to deliver a palette of novel, multi-functional 3D metamaterials using additive manufacturing. The resulting novel 3D structures will offer a radically new way of designing and manufacturing electronic devices.

## Job Description

**Job Grade:** Technical Services Grade 6

**Job Purpose:** These are senior technical positions with responsibility for managing the SYMETA project's laboratory facilities and equipment. The posts involve supervising students and researchers using the research space and equipment. Post holders will be expected to provide specialist technical support, working closely with academic staff, researchers and students engaged with the SYMETA project to test materials, and to develop, manufacture, finish and test research outputs to the required levels of precision and accuracy.

### Job Duties:

- To provide a professional point of contact for suppliers and external partners and to liaise effectively with colleagues throughout the Schools and collaborators from the partner universities.
- To work closely with colleagues and collaborating partners from academia and industry, to prepare and support experimental work.
- To develop experimental demonstrators to support external visits.
- To provide advanced technical support for the SYMETA project. Where required to use complex instrumentation to analyse the performance of research outputs.
- To make a practical contribution to discussions on the future technical activities and future direction of the SYMETA project.
- To collaborate with colleagues on the SYMETA project in the creation of new knowledge and experimental data collection techniques.
- To take responsibility for the daily maintenance and upkeep of equipment and laboratory space. To ensure that a safe working environment is maintained at all times through compliance with Health and Safety at Work Regulation and the University's Operational Procedures.
- To create and manage administrative processes to support the work of the SYMETA project and to ensure that internal objectives can be monitored and adjusted accordingly.
- To take responsibility for the sourcing and procurement of stock and specialist items to support SYMETA's work and to maintain appropriate documentation in keeping with the University's financial procedures.
- To work closely with the research work package leaders to identify any training needs within the research teams and to provide appropriate technical training for technical, academic and research colleagues.

- As required, to assist research students in their use of the lab spaces and equipment.

### **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.

### **Organisational Responsibility**

For issues relating to Human Resources Management e.g. Probation, Personal Development reports to Chris Harris, Technical Resource Manager, Wolfson School of Mechanical, Electrical and Manufacturing Engineering. For day-to-day issues relating to the activities required to support the SYMETA Research project reports to Professor Yiannis Vardaxoglou, Principal Investigator.

## Person Specification

Your application will be reviewed with respect to meeting the essential and desirable criteria listed below. 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	Previous experience of working within a University engineering department, facility or research environment or experience of commissioning in an industrial setting	1, 3
	Experience of applied use of rapid prototyping systems, 3D printing/Additive Layer Manufacturing (ALM), processes and associated machinery <b>and/or</b> experience of materials (polymers and ceramics), processing and handling of materials processing and testing equipment.	1, 3
Skills and abilities	Proven ability to plan and execute additive manufacturing processes for different materials	1, 3
	Proven ability to build experimental setups including electronics and software interfaces	1, 2, 3
	Demonstrable ability to work with efficiency and accuracy	1, 3
	Professional manner with excellent interpersonal and communication skills	3
	Ability to show initiative and work independently but also make a full contribution as a team player	1, 3
	Ability to deal effectively with conflicting priorities	1, 3
	IT literate, experience in the use of MS Office software	1, 3
	High level of adaptability and able to demonstrate a positive attitude to change	1, 3
	Understanding of current Health and Safety legislation, risk management and COSHH regulations	1, 3
Training	Be willing to adopt new procedures as and when required	3
	Able to provide evidence of continuous personal development	3
	Be prepared to undertake further training both internally and externally	3
Qualifications	At least HNC level in and engineering or related subject or significant relevant experience	1
Other	To observe the University's Equal Opportunities policy at all times	3
	To comply with Health and Safety regulations	3
	To observe the University's operational procedures	3

## Desirable Criteria

Area	Criteria	Stage
Experience	HND in a related subject	1
	Served a recognised engineering apprenticeship with experience in an engineering environment	1, 3
	Supervisory experience	1, 3
Skills and abilities	Applied experience in the use of associated software e.g. CAD and related 3D printing/ALM packages	1, 3
Qualifications		

## Conditions of Service

We have two positions to fill either full or part time and these posts are fixed term, terminating on 1<sup>st</sup> March 2021. Salary will be on Technical Services Grade 6, £28,982 to £37,768 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 Technical staff, details of which can be found at

[http://www.lboro.ac.uk/media/wwwlboroacuk/content/humanresources/downloads/technicianscos\\_v2.pdf](http://www.lboro.ac.uk/media/wwwlboroacuk/content/humanresources/downloads/technicianscos_v2.pdf)

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

## Informal Enquiries

Informal enquiries should be made to

Professor Yiannis Vardaxoglou, by email at [J.C.Vardaxoglou@lboro.ac.uk](mailto:J.C.Vardaxoglou@lboro.ac.uk) or by telephone on 01509 227135  
Or

Dr Darren Cadman, Project Engineer by email at [D.A.Cadman@lboro.ac.uk](mailto:D.A.Cadman@lboro.ac.uk) or by telephone on 01509 227031  
Or

Professor Vaidhy Vaidhyanathan, Professor of Advanced Materials and Processing by email at [B.Vaidhyanathan@lboro.ac.uk](mailto:B.Vaidhyanathan@lboro.ac.uk) or by telephone on 01509 223152.

## Applications

The closing date for receipt of applications is **06 October 2016**.