

Technical Supervisor (Mechatronic Systems)

Job Ref: REQ260376

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 Wolfson School, based principally in the Sports Technology Institute. 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, 80 professional staff, 1950 undergraduate students, 180 postgraduate MSc students and 160 research students

Job Description

Job Grade: Grade 6, Technical Teaching and Specialist (TTS).

Job Purpose

The postholder will work as part of a team to co-ordinate and deliver technical operations in an academic and research setting, ensuring compliance with safety standards and the effective management of facilities, equipment, resources and technical expertise to enhance the School's teaching, research, and learning aims.

To postholder will provide specialist expertise in experimental sports engineering systems, including mechanical, electronic and control. The postholder will supervise and support research and teaching equipment principally within Sports Technology Institute, provide input to teaching activities, and ensure the effective design, build, and integration of electro-mechanical and robotic systems.

This senior technical role combines supervisory responsibility, technical leadership, and hands-on development of prototypes, demonstrators, and bespoke test systems. The postholder will collaborate with academics, researchers, and students to deliver innovative solutions that support teaching, research, and enterprise.

The postholder will be required to independently plan and organise their own and the work of others. May be required to provide line management, mentoring and professional development support to colleagues. The level of responsibility will increase as the postholder's knowledge, training and professional development progresses.

Job Duties

- Co-ordinate technical operations to support the School's teaching, learning and research aims.
- Lead and collaborate with other technical staff to design, develop, manufacture, test, calibrate, and integrate robotic, control, and mechatronic devices, including preparation and review of CAD/CAE documentation.

- Act as main technical supervisor for sports engineering mechatronic and electro-mechanical systems, providing specialist advice and hands-on support for staff and students.
- Take responsibility for line managing technical colleagues at lower grades, as determined by the Technical Manager, following HR policies and procedures. Actively support the professional development of colleagues that you line manage as well as other technical colleagues within the School when appropriate.
- Keep updated on Health and Safety regulations, implementing and enforcing them, and escalating any issues. Ensure compliance with relevant standards and regulations, including (HASAW, PUWER, COSHH)
- Oversee and, when required, co-ordinate the maintenance and procurement of equipment and consumables within budget and policy guidelines.
- Establish, develop and oversee the maintenance of technical documentation, such as standard operating procedures, risk assessments, training records, and instructional materials.
- Identify and escalate issues (technical and staff-related) to the Technical Manager and suggest solutions drawing from your own knowledge and expertise.
- Support the delivery of open days, student visit days and outreach activities. Flexibility regarding working hours/days is required at times.
- Maintain good working relationships and communicate effectively with technical staff, academics, students, and visitors, including communicating complex information effectively to varied audiences. Attend and contribute to team meetings within the School and attend University technician networking events.
- Provide cover for any absence of other technical staff when necessary.
- Complete role-specific training and professional development, such as leadership and management training. This may require attending externally provided courses.
- Undertake other general tasks and duties, commensurate with the level of the position, as directed by the Line Manager.

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 observe the University's Equality & Diversity Commitment and equality legislation at all times. Our Commitment is detailed here: <https://www.lboro.ac.uk/equity-diversity-inclusion/our-commitment/>.

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

Organisational Responsibility

Reports to: Head of Operations, Wolfson School

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 co-ordinating technical support in an experimental sports engineering setting, supporting either teaching and learning or research activities in HE setting. | 1,3 |
| | Experience of co-ordinating the operation, testing, repair and upgrade of specialist equipment including advanced optical measurement systems and applied motion capture. | 1,3 |
| | Experience of co-ordinating the procurement of equipment and consumables within agreed budgets, in accordance with agreed policies. | 1,3 |
| | Experience of applying and co-ordinating relevant processes and techniques. | 1,3 |
| | Experience of ensuring that correct Health & Safety procedures and practices are being followed by all stakeholders working in technical settings. | 1,3 |
| | Experience of co-ordinating or supervising the work of others to achieve successful outputs and outcomes. | 1,3 |
| | Experience in designing and developing electro-mechanical systems and devices using CAD/CAE software. | 1,3 |
| | Experience and skilled in high-speed imaging, data processing workflows especially MATLAB/Python. | 1,3 |
| | Recent experience in a relevant setting related to Stereo photogrammetry, Motion capture and 3D scanning. | 1,3 |
| | Experience of using office-based and specialist software. | 1,3 |
| | Experience of providing and developing teaching and learning support to students, including practical demonstration & instruction. | 1,3 |
| Skills and abilities | Ability to work with professionalism and discretion, in accordance with University values, and to maintain confidentiality. | 1,3 |
| | Ability to use good communication to form and maintain effective relationships at all levels. | 1,3 |
| | Ability to communicate complex information in an effective and engaging way to a range of audiences, specifically in the area of mechatronics. | 1,2,3 |
| | Ability to work efficiently and accurately, planning and prioritising your own workload to deliver tasks within agreed timescales. | 1,3 |
| | Ability to work independently, apply your own initiative, be self-motivated and lead own workload, projects and teams. | 1,3 |
| | Ability to learn new skills and solve problems, using initiative and judgement in more complex situations. | 1,2,3 |

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|---------------------------------------|--|-------|
| | Ability to establish, develop and maintain effective documentation, including, standard operating procedures, risk assessments, and COSHH forms | 1,2,3 |
| | Ability to integrate electrical and mechanical systems into functional prototypes and equipment | 1,2,3 |
| Training | Proven commitment to ongoing professional development, including mandatory and role-specific training. | 1,3 |
| | Willingness to take on wider University roles on behalf of the School/Service, such as Health & Safety or other roles. | 1,3 |
| Equity, Diversity and Inclusion (EDI) | Commitment to understanding EDI challenges and observing University EDI guidelines. | 1,3 |
| Qualifications | Level 4, or equivalent qualification, in a relevant subject, including but not limited to: Certificate of higher education (CertHE); Higher apprenticeship; Higher national certificate (HNC); Level 4 award; Level 4 certificate; Level 4 diploma; Level 4 NVQ. <i>While a Level 4, or equivalent, qualification is preferred, we recognise the value of practical and 'real-world' knowledge and expertise, therefore candidates with a strong industry track record will be considered based on their demonstrated skills, achievements, and contributions to the field.</i> | 1 |
| | Willingness to work towards a teaching qualification | 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 |

Desirable Criteria

| Area | Criteria | Stage |
|----------------|--|-------|
| Experience | Experience of ensuring compliance with relevant standards and regulations. | 1,3 |
| | Experience of working in a university, R&D, or industrial mechatronics/robotics setting. | 1,3 |
| | Experience collaborating with industry on bespoke mechatronic systems. | 1,3 |
| | Experience of creating software to control automated lab/research equipment. | 1,3 |
| | Experience in Siemens NX, CAD BX, GOM/Zeiss software suite, Picoscope | 1, 3 |
| | Recent experience in technical/laboratory support to aerodynamic testing, Impact analysis, vibration analysis | 1,3 |
| | Ability to provide input into curriculum design and/or the design of technical activities to support teaching. | 1,3 |
| | Knowledge of collaborative/industrial robot programming (e.g. ROS integration). | 1,2,3 |
| Qualifications | BEng in a relevant engineering discipline (or equivalent). | 1 |
| Other | Current driving license (to meet University requirements for driving University/hired vehicles). | 1,3 |

Conditions of Service

The appointment will be subject to the [University's Terms and Conditions of Employment](#) relevant to the job grade.

Shared University Responsibilities

As a member of the Loughborough community, you are expected to:

- Take reasonable care of yourself, others and the environment, and to prevent harm by your acts or omissions. All staff are therefore required to adhere to the University's Health, Safety and Environmental Sustainability Policies & Procedures.
- Uphold and actively contribute to the [University's commitment to Equity, Diversity, and Inclusion](#), ensuring that all duties are carried out in alignment with this.

Our Purpose, Vision, and Values

Our purpose, Vision and Values underpin all that we do and shape how we work together at Loughborough. We're proud to promote our values: **Adventurous, Collaborative, Creative, Authentic and Responsible**. Our people bring these values to life every day, and they are central to the positive and supportive culture that makes Loughborough unique.

If you join us, you'll be encouraged to bring these values to life in your own work and contribute to the positive, supportive culture that makes Loughborough unique.

Read more about our [vision and values](#).

Our Accreditations



We 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.



We are proud to be a [Race Equality Charter Member](#). The Charter aims to improve the representation, progression and success of all minority ethnic staff and students within higher education and address issues of racism within higher education institutions (HEIs).



We are proud to be a Disability Confident Employer and have adopted a proactive approach to employing disabled people and to creating a more diverse workforce. We ensure that our recruitment processes are inclusive and accessible. We guarantee to offer an interview to all applicants who have declared themselves with a disability, provided they meet the essential criteria for a role. We proactively anticipate and provide reasonable adjustments and support existing employees who acquire a disability or long-term condition to thrive in the workplace.



We are a real living wage employer, and our Living Wage Employer Mark shows our commitment to paying our staff according to the cost of living.



We are proud supporters of the [City of Sanctuary movement](#) and delighted to be recognised as a University of Sanctuary. This national network brings together, university staff, lecturers, academics and students, who together work to make Higher Education institutions place of safety, solidarity and empowerment for people seeking sanctuary.

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.