# THE UNIVERSITY OF MANCHESTER

# PARTICULARS OF APPOINTMENT

# FACULTY OF SCIENCE & ENGINEERING

# Faculty Office Science & Engineering

# Division of FSE Technical Services

# Senior Technician (DF&T)

# Vacancy ref: SAE-026992

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| **Salary:** | £31,387-35,880 per annum depending on experience |
| **Hours:** | 35 hours per week (1 FTE) |
| **Duration:** | Permanent |
| **Location:** | Oxford Road, Manchester |

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**Enquiries about the vacancy, shortlisting and interviews:**

Name: Stephen Burley

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**Introduction**

The University of Manchester (www.manchester.ac.uk) is one of the largest single-site universities in the UK, with one of the biggest student communities. In total, 25 Nobel Prize winners have worked or studied here and 93% of our research was ranked as ‘world-leading’ or ‘internationally excellent’ by the Research Excellence Framework in 2021. Furthermore more than nine out of ten of our recent graduates go straight into employment or continued studies.

The Faculty of Science and Engineering (FSE) comprises two multi-discipline Schools; the School of Engineering and the School of Natural Sciences, each led by a Head of School and Head of School Operations. The School of Engineering is made up of five academic departments and the School of Natural Sciences is made up of five academic departments. For more information please visit https://www.se.manchester.ac.uk/.

**Overall Purpose of the Job**

We are seeking an enthusiastic and proactive Senior Technician to join our dynamic Faculty Technical Operations team, which strives to provide a sector leading technical support for our students and staff.

The purpose of this role is:

* The Design, Fabrication and Testing Platform builds upon the innovative, creative, practical and research capabilities of our enterprising technical staff. The platform aims to accelerate interdisciplinary research by recognising the intrinsic synergies in the experimental workflows of Natural Science and Engineering. The Senior Technician forms a vital part in interacting with research, teaching and industrial stakeholders throughout this process.
* The Senior Technician is required to support the work of the Design, Fabrication and Testing Platform within the Faculty of Science and Engineering. The primary focus of this role will be the provision of support in the areas of Civil and Mechanical Engineering.

These facilities are used for supporting world-class research, teaching as well as work with industry.

* The Senior Technician is expected to play a key role in ensuring our experimental facilities run efficiently and develop in response to the needs of the research and taught programs. They will be expected to have a close and supportive working relationship with the academic staff and their researchers who are delivering research projects and taught modules.
* The facilities the Senior Technician will support include hydraulics, construction, dynamics, high energy/speed impact and heavy structure mechanical testing, including managing equipment and associated sample preparation and auxiliary instrumentation.
* The Senior Technician will need to collaborate, cooperate and work effectively with other platforms utilising facilities and Platforms such as Mechanical Testing, Optical and Electronic, Advanced Manufacturing, Workshops and Surface via the PPMS booking system.

**Main Duties And Responsibilities**

**Equipment & Operations**

* To work closely with undergraduate/postgraduate students to support them in conducting experimental work in the areas of heavy structures, dynamics, hydraulics and testing equipment. This will include supporting them in setting up test rigs and measurement systems, conducting experiments and validating test results.
* Routine maintenance of the facilities and associated preparation equipment including first line troubleshooting.
* Demonstrating and supporting delivery of practical classes as part of taught programs.
* Including but not limited to Mechanical Engineering Group Design Projects, IMechE grand challenges, and Design, Manufacture and Test modules.
* To train or instruct other staff and students in the use of equipment and its servicing as required and within the limits of technical competence.
* Contribute to and influence the development and review of procedures and process based on your own knowledge and experience.
* Independently plan and prioritise your own day-to-day tasks and how they are done based on your own knowledge and experience.
* Induct and train staff, students and visitors to safely carry out processes and procedures using basic to more specialist and complex scientific/engineering equipment and techniques.
* Fault find, troubleshoot and solve more complex equipment issues using your own advanced knowledge, experience and initiative.
* Carry out routine inspections, maintenance and servicing of equipment within FSE to ensure failures and breakdowns have very limited impact.
* Liaise directly with technical and academic colleagues, external companies and vendors/contractors to resolve problems in a timely fashion.
* Develop strong and effective working relationships with key University stakeholders in order to positively influence successful outcomes e.g. FSE and University Estates, H&S, equipment suppliers and engineers.
* Ensure the delivery of an excellence service.
* Plan resource requirements in advance, including maintaining appropriate equipment and consumable levels, procurement of goods, liaising with colleagues, etc.
* Be responsive, agile and flexible based on service need across FSE i.e. learn new techniques, support other areas in the Faculty should the need arise, on occasions perform additional duties outside the scope of your role but commensurate with grade.
* Take day-to-day responsibility for the smooth and uninterrupted operation of research technical support and service provision activities.
* Champion a culture of continuous improvement, collaboration, consistency and innovation; and engage constructively with change initiatives.
* Be an active and enthusiastic member of the FSE Technical Operations community. Governance & Compliance
* Implement, comply with and monitor all relevant health and safety requirements in the workplace in order for the University to meet its legislative requirements and duty of care to all staff, students and visitors.
* Thoroughly understand all H&S requirements, policies and procedures. Develop and set standards in liaison with School Safety Advisors.
* Act in accordance with and promote university policies, procedures and requirements at all times, in particular those relating to health and safety; procurement; finance; equality, diversity and inclusion; and information governance.
* Maintain a strong awareness of the Faculty’s strategy to deliver world-class research and teaching performance as well as an understanding of how your area of work directly supports the vision and goals of the University.
* Make a difference to the life and future of our region by embedding the University’s social responsibility goals within the day to day operations.
* Maintain a commitment to equality, diversity and inclusion.

**Person Specification**

**Qualifications**

* A qualification in a science or engineering related subject area e.g. degree, HND, HNC, or relevant work experience in a relevant technical, engineering or scientific role.

**Essential**

* Experience in fabrication and testing methods used in the application of Civil and Mechanical Engineering.
* Demonstrable experience in engineering elements like functionality, replicability, and costs in relation to the design and how they are applied in the completion of engineering projects
* Knowledge in the use of workshop machine tools necessary, for fabrication and sample preparation, including: lathes, milling, grinding, cutting, grinding, polishing and drilling machines.
* An aptitude for training and mentoring students from a diverse range of backgrounds.
* Have a broad range of experience from working in a technical, or technical related role.
* The ability to supervise, mentor and motivate.
* A flexible and agile approach to working in a multi-disciplined environment.
* Professionalism and confidentiality.
* Experience of working in a team environment within a large organisation, supporting colleagues and freely sharing knowledge and expertise for the benefit of the wider team.
* An ability to communicate effectively with staff at all levels from across the University.
* Excellent IT skills using e.g. Microsoft Office, (Word, Excel, PowerPoint, etc).
* Excellent oral and written communication skills.
* Excellent customer service ethos.
* Excellent time management skills.
* Excellent numeracy, analytical, problem-solving skills and the ability to identify problems and resolve issues effectively.
* Excellent organisational skills with the ability to manage a large workload and prioritise tasks in order to meet deadlines.
* Excellent knowledge, understanding and experience of implementing and applying relevant health and safety requirements in a science and engineering environment (e.g. risk assessments, operating procedures, COSHH assessments).
* A strong commitment to ongoing personal training and continued professional development (CPD) with a strong interest in acquiring new skills and competencies.
* A commitment to the University's core values and to the provision of the best possible support to our students, staff and customers.

**Desirable**

* Experience of the use of control and logging software.
* Experience of strain gauging and mechanical property testing of concrete, composite and metallic systems.
* Demonstrated and competent ability to handle chemicals and dangerous substances to prepare samples, use correct disposal routes and respond to uncontrolled release.
* Experience of using specialist systems such as LabCup for inventory, monitoring and control of chemicals, materials, and assets.
* Line management / supervisory experience.

**Expectations and Success Factors**

* To be a proactive team member and treat all colleagues and students with respect in accordance with well-established PS Behaviours.
* To be willing to work across organisational boundaries.
* To seek new knowledge and share ideas.
* To be open and responsive to change and innovation.

Appointees must be prepared to undertake work outside regular office hours including weekends as necessary. The University operates arrangements to recognise this working pattern and to ensure an appropriate balance between working and non-working time.