School of Engineering and Informatics
Department of Engineering and Design
Mechanical Technician (Permanent, full time)
Salary range: starting at £28,452 and rising to £32,004 per annum.

The School recently received £10M which is being invested in a new Computing, Robotics, Electronics and Mechatronics Centre (CREaM), consequentially the Department of Engineering and Design has opportunities for additional mechanical technicians. This post may be of interest to a person who has served an apprenticeship, and can operate standard workshop equipment including lathes, and milling machines; and CNC machines.

The successful applicant will be part of the technical team working to enable staff and students to fulfil their teaching and research goals. The work is varied, and ranges from high precision machining for complex research projects; through to helping students design and manufacture a racing car which is tested in competition with other universities at Silverstone, in the annual Formula Student event.

Informal enquiries can be made to Professor D J Mynors, Head of school D.J.Mynors@sussex.ac.uk.

Closing date for applications: 3 November 2016

For full details and how to apply see www.sussex.ac.uk/jobs

The University of Sussex is committed to equality of opportunity

The School is committed to equality and valuing diversity, and currently holds an Athena SWAN Bronze Award. Applications are particularly welcomed from women and black and minority ethnic candidates.
2. Senior leadership and management

The Vice-Chancellor is the senior academic officer and, as Chief Executive, is responsible to the University Council for management of the University. He is supported by an executive group which includes the three Pro-Vice-Chancellors, the Registrar and Secretary, the Director of Finance and the Director of Human Resources. The Heads of the Schools of Studies at Sussex report to the Pro-Vice-Chancellors.

The Registrar and Secretary heads the Professional Services of the University. In addition, under the University Statutes, the Registrar and Secretary is Secretary to the University Council. The Director of Finance reports to the Vice-Chancellor. The Director of ITS reports to the Registrar and Secretary, and the Librarian reports to one of the Pro-Vice-Chancellors.

3. The School of Engineering and Informatics

The School of Engineering and Informatics covers the disciplines of computer, electrical and electronic engineering, mechanical, and automotive engineering, product design, digital media, computer science and informatics. Sussex was ranked 19th in the UK in the just released Complete University Guide 2017.

Distinctive characteristics of the School are: creativity, interdisciplinarity, strong links with industry, and an international outlook in both research and teaching. £10m (£4.9m from HEFCE) is being invested in a new Computing, Robotics, Electronics and Mechatronics Centre (CREaM) as a result of a 60% surge in applications for the School's degrees.

The School offers a range of undergraduate and postgraduate degrees in its areas of expertise, often in collaboration with other schools at Sussex, to create a distinctive focus that addresses the needs of industry, commerce and society. Examples include joint degrees with the MSc in Evolutionary and Adaptive Systems (EASy) that includes modules from the Schools of Engineering and Informatics and Psychology; and the MScs in Engineering Business Management, and Management of Information Technology, which were developed in collaboration with the School of Business, Management and Economics.

This interdisciplinary approach also applies to our research, with current and recent externally funded projects with researchers in a wide range of other subject areas including: geomorphology, media practice, medical imaging, neuroscience, anthropology, English literature, epidemiology, geography, international development, mathematics, psychiatry, psychology and sociology.

The School has strong industry links, and has an established Strategic Advisory Board. Innovative research across the School has led to a number of patents which are being commercialised including: novel electric potential sensors (EPS) licensed to Plessey Semiconductors and marketed as the EPIC sensor chip; and University spin-out companies, including TribeHive, which is deploying delay-tolerant networking to provide smartphone connectivity in large crowds, and TexRAD, which has developed software for the analysis of medical images and has recently demonstrated the ability to detect brain texture anomalies in Asperger’s Syndrome patients. These developments have been supported by the University’s Enterprise fund. The EPS sensor technology was awarded the IET Innovation award for ‘Measurement in Action’, and was shortlisted for two other IET awards and a THES award.

The School is, for administrative purposes, comprised of two departments: the Department of Informatics and the Department of Engineering and Design. Staff teach across the School, and undertake research on cross-School, as well as cross-University projects.
Following a recent Professorial appointment, the School has just launched a major new School-wide research group in Creative Technology.

The Group brings together a number of academics working in the areas of human-centred technology, product design, experience design, tangible and physical computing, games, digital media, digital cultural heritage, child-computer interaction, broadcast technologies and social innovation.

### 3.1 Department of Informatics

The Department of Informatics is highly rated for its teaching and research. Its researchers work in an environment that was deemed to be wholly 4*/3* (world-leading/ internationally excellent) in the REF 2014.

Sussex was ranked in the top 25 in the UK in The Guardian University Guide 2014. Our students are highly employable: in early 2014, 95% of our previous year’s graduates were employed, and of those, 100% were in professional or managerial jobs.

The Department maintains a strong emphasis on interdisciplinary teaching and research, and has substantive links with almost all other Schools of study at Sussex. Its research spans the theoretical and applied.

The Department’s research is organised into three groups:
- Data Science ([www.sussex.ac.uk/calps/](http://www.sussex.ac.uk/calps/))
- Evolutionary and Adaptive Systems ([www.sussex.ac.uk/easy/](http://www.sussex.ac.uk/easy/))
- Foundations of Software Systems ([www.sussex.ac.uk/foss/](http://www.sussex.ac.uk/foss/)),

and also plays leading roles in cross-disciplinary research centres:
- Sackler Centre for Consciousness Science ([www.sussex.ac.uk/sackler/](http://www.sussex.ac.uk/sackler/))
- Centre for Computational Neuroscience and Robotics (CCNR) ([www.sussex.ac.uk/ccnr/](http://www.sussex.ac.uk/ccnr/))
- Centre for Cognitive Science (COS) ([www.sussex.ac.uk/cogs/](http://www.sussex.ac.uk/cogs/))
- Sussex Neuroscience ([www.sussex.ac.uk/sussexneuroscience/](http://www.sussex.ac.uk/sussexneuroscience/)).

The Department has long-standing collaborations with a range of external organisations including Animazoo, the Clinical Practice Research Datalink, and American Express, which has sponsored over 120 MSc students in Informatics over the past 10 years.

The Department currently has 420 undergraduates, 80 taught postgraduates, and 60 doctoral students. Undergraduate courses, accredited by the relevant professional institutions where appropriate, and have an industrial placement year option, include:
- MComp (Hons) / BSc (Hons) Computer Science
- BSc (Hons) Computer Science and Artificial Intelligence
- BSc (Hons) Computing for Business and Management
- BSc (Hons) Computing for Digital Media
- BSc (Hons) Games and Multimedia Environments
- MEng (Hons) / BEng (Hons) Computer Engineering *(a cross-School course between the Department of Informatics and the Departments of Engineering and Design).*

The Department’s masters level courses are in the process of being reviewed as part of a cross-School process, the courses currently include:
- MSc Advanced Computer Science
- MSc Computing with Digital Media
- MSc Data Science
- MSc Evolutionary and Adaptive Systems
- MSc Human-Computer Interaction
MSc Information Technology with Business and Management
MSc Intelligent Systems
MSc Management of Information Technology.

Detailed information about the Department can be found at www.sussex.ac.uk/informatics

3.2 Department of Engineering and Design

The Department of Engineering and Design has a strong reputation for excellence in research and teaching. Its research outputs were rated as 88%, and impact as 90% 4*/3* (world-leading/internationally excellent) in the REF 2014. In the 2014 NSS engineering students registered an 86% satisfaction level with respect to learning resources. Mechanical Engineering ranked 15th for graduate prospects, in the Complete University Guide 2015 and an overall ranking of 18th in the just released 2016 Guardian University Guide; with Electrical Engineering ranked 14th for student satisfaction in the Complete University Guide 2014.

The Department’s students won the automotive category of the Telegraph UK STEM Awards 2014 sponsored by McLaren Group (link to video).

Research activity is focused on mechanical engineering (turbomachinery, dynamics and control, and tribology); and electronic engineering (sensor technology, image and signal processing, and mobile digital communications). There are strong collaborations with industry, including Jaguar Land Rover, General Electric, Plessey Semiconductors and Meggitt Sensing Systems.

The Department’s research is organised into four groups:
- Dynamics, Control and Vehicle Research Group (www.sussex.ac.uk/dcv)
- Industrial Informatics and Signal Processing Research Group (http://www.sussex.ac.uk/iisp/)
- Sensor Technology Research Centre (www.sussex.ac.uk/strc/)
- Thermo-Fluid Mechanics Research Centre (http://www.sussex.ac.uk/tfmrc/)

The Department currently has 495 undergraduate students, 62 taught postgraduate students, and 43 postgraduate research students.

The Department’s undergraduate courses, all of which are accredited and have an industrial placement year option, include:
- MEng (Hons) / BEng (Hons) Automotive Engineering
- MEng (Hons) / BEng (Hons) Computer Engineering (a cross-School course between the Departments of Engineering and Design and the Department of Informatics)
- MEng (Hons) / BEng (Hons) Electrical and Electronic Engineering
- MEng (Hons) / BEng (Hons) Mechanical Engineering
- BSc (Hons) Product Design.

The Department’s masters level courses, the majority of which are also accredited, are in the process of being reviewed as part of a cross-School process, the courses currently include:
- MSc Advanced Mechanical Engineering
- MSc Digital Communication Systems
- MSc Embedded Digital Systems
- MSc Engineering Business Management
- MSc Robotics and Autonomous Systems

Detailed information about the Department can be found at www.sussex.ac.uk/engineering
UNIVERSITY OF SUSSEX

Job Description for the post of: Mechanical Technician

Section / Unit / School  Engineering and Informatics

Department  Engineering and Design

Location  Falmer Campus

Grade  6

Responsible to  Chief Technician

Responsible for  N/A

Purpose of the post

The provision of an effective and efficient technical service within the University for staff and students. General responsibility under the Chief Technician or the senior member of academic staff for the operation of the teaching laboratory facilities, and research laboratories. Ensuring a safe and tidy working environment is maintained at all times. Responsible for implementing the needs of teaching and practical classes, and to ensure the efficient operation and management of the laboratory and workshop facilities.

Key Responsibilities:

1. Ensure the implementation of a safe working environment using good working practices, in line with relevant local and legal requirements. Undertake risk, or other, safety assessments and ensure standard operating procedures/safe working practices are in place and being followed to ensure the safety of others in the lab(s).

2. Communicating advice, instructing, training and guiding staff and students in techniques and operation of particular equipment as directed.

3. Set up and/or construction of apparatus involving modification / manufacture of apparatus using various techniques for laboratory experiments and projects.

4. Responsible for ensuring that lab equipment is functional at all times. Carrying out the regular first line maintenance tasks or minor repairs on all such equipment. Responsible for ensuring that all repairs are carried out and records are kept up to date. Identifying equipment that needs replacing and assisting in preparing specifications for equipment purchases in conjunction with the Chief Technician and appropriate academic staff.

5. Ordering of equipment and materials and maintaining adequate stock levels within policies laid down. Carry out budgeting exercises and cost control measures to ensure that all expenditure is within the agreed budget, as directed by the Chief Technician and appropriate academic staff.

6. Apply working knowledge of theory and practice, sharing this knowledge with others as appropriate. Demonstrate development by acquiring relevant skills and competencies.
7 Explain or show the use or application of equipment, systems, operations and techniques to students within class, providing an understanding of underlying operational and practical principles, where appropriate.

8 Instruction, training and guidance of technical staff in laboratory procedures, as required.

9 Design, fabrication, testing and evaluation of custom mechanical, electrical or electronic equipment as directed by the Chief Technician.

10 Maintenance of personal development and training record.

11 Communication with range of staff across the University on issues related to research, teaching and health and safety provision.

12 Support relevant research programme at the direction of the School’s Chief Technician.

13 Assist in the organisation of resources for the running of practical laboratories.

**EXTRA FACTUAL DETAILS:**

**Duties specific to the role**

- Ensure that laboratory classes are set up prior to the start of the class and the suitable technical support is available throughout the class times.
- Responsible for completing all risk assessments / COSSH documentation for laboratory work.
- Responsible for purchases of consumables and monitoring expenditure of allocated funds.
- Running introductory laboratory session at the start of each academic year for students.
- Contribute, as appropriate, to experimental development and piloting new experiments.
- Ensure that equipment is properly maintained and stored.
- Organising the replacement of old equipment as necessary.
- Ensuring that within the laboratories all health and safety procedures are understood and followed correctly; dealing with health and safety emergencies.
- Have a wide range of machining skills and the construction of components and equipment to be used in teaching, for student projects and research.
- Providing mechanical based engineering support to school teaching and research activities, such as engine technology, formula student project.

This Job Description sets out the current duties of the post that may vary from time to time without changing the general character of the post or the level of responsibility entailed.

Date: ......................................................
**UNIVERSITY OF SUSSEX**

**Job Description for the post of: Mechanical Technician**

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<thead>
<tr>
<th>SKILLS / ABILITIES</th>
<th>Essential</th>
<th>Desirable</th>
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<tbody>
<tr>
<td>Good interpersonal skills: ability to both convey and understand communication with fellow workers and have a willingness to coach develop and instruct other team members thus ensuring a degree of knowledge and co-operation is achieved at all times.</td>
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<td>X</td>
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<tr>
<td>Ability to prioritise work to meet set deadlines.</td>
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<td>Ability to work as part of a team</td>
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<td>Proven ability to work independently and use initiative where appropriate.</td>
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<td>Maintenance skills - to maintain laboratory equipment to required standards.</td>
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<tr>
<th>KNOWLEDGE</th>
<th>Essential</th>
<th>Desirable</th>
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<tbody>
<tr>
<td>Computer skills: University and other computer software as appropriate.</td>
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<td>The ability to produce a high level of quality and quantity of work within the requirements of the job.</td>
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<td>Understanding of and participation in administrative structures relevant to the teaching laboratory</td>
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<td>Knowledge of health and safety e.g. risk assessment, PAT Testing</td>
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<tr>
<td>Working knowledge of Health and Safety e.g. conducting risk assessments, as it pertains to the laboratory environment.</td>
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<tr>
<td>Significant knowledge of mechanical design techniques and of use of full range of machine tools, and welding</td>
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<td>X</td>
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<tr>
<th>EXPERIENCE</th>
<th>Essential</th>
<th>Desirable</th>
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<tbody>
<tr>
<td>Possession of the knowledge, skill and experience required for the job and the ability to use these to discharge their role effectively and efficiently.</td>
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<td>X</td>
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<tr>
<td>Extensive experience of mechanical design, development, fabrication and testing techniques.</td>
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<tr>
<td>Experience of working to fine tolerances and high precision and/or CNC-controlled machinery such as a wire eroder or 3-axis milling machine.</td>
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<td>X</td>
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<td>Demonstrable CAD experience</td>
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<tr>
<td>Proven experience of working in HE laboratory in relevant subject area</td>
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<td>Experience of purchasing in a HE environment</td>
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<td>X</td>
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### QUALIFICATIONS

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<tr>
<th>Essential</th>
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<tbody>
<tr>
<td>NVQ Level 3 HNC / BTEC or equivalent qualification or experience in engineering or a relevant subject</td>
<td>X</td>
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<tr>
<td>NVQ Level 4, Degree or equivalent qualification or experience in engineering or a relevant subject</td>
<td>X</td>
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### PERSONAL ATTRIBUTES AND CIRCUMSTANCES

<table>
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<tr>
<th>Essential</th>
<th>Desirable</th>
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<tbody>
<tr>
<td>Dependable and reliable.</td>
<td>X</td>
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<td>Good personal organisation, competence to organise others.</td>
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<td>Proficiency to handle confidential matters expeditiously.</td>
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<tr>
<td>Willingness to act as a point of reference to others and demonstrate continuous specialist development, acquiring and refining skills and expertise in new or related areas through undertaking development activity</td>
<td>X</td>
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