Job Related Information

This document includes information about the role for which you are applying and the information you will need to provide with your application.

1. Role Details

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<tbody>
<tr>
<td>Vacancy reference</td>
<td>14437</td>
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<tr>
<td>Job title:</td>
<td>Senior Lecturer in Electronic Engineering/Electrical Engineering</td>
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<tr>
<td>Reports to:</td>
<td>Head of School</td>
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<tr>
<td>Salary:</td>
<td>£50,618 to £56,950</td>
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<tr>
<td>Terms and conditions:</td>
<td>Academic</td>
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<tr>
<td>Grade</td>
<td>AC4</td>
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<tr>
<td>Duration of post:</td>
<td>Permanent</td>
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<tr>
<td>Working hours:</td>
<td>Full time</td>
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<tr>
<td>Location:</td>
<td>Walton Hall, Milton Keynes</td>
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<tr>
<td>Closing date:</td>
<td>Noon, 20 March 2018</td>
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<td>Type of application form accepted:</td>
<td>Short</td>
</tr>
<tr>
<td>Number of referees required:</td>
<td>Three</td>
</tr>
<tr>
<td>Unit recruitment contact:</td>
<td>Janie Barker</td>
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</table>
2. Summary of duties

We are investing in a new Electronic/Electrical Engineering strand of teaching within our BEng and MEng qualifications and are seeking to appoint an experienced candidate who will provide leading contributions to this new curriculum at all levels. In particular, the successful candidate will immediately join a team of academics authoring a new third-level Electronics module, delivered to students learning ‘at a distance’. In the longer term, the successful candidate will help with the development and maintenance of all our Electronics modules, and contribute more broadly to distance-learning module presentation in the general engineering area.

The successful candidate is expected to take a major role in our OpenEngineering remote-access teaching laboratory, leading the development of the state-of-the-art facility and maintaining its world-leading status. The OpenEngineering Lab is part of our award winning OpenSTEM Labs (https://learn5.open.ac.uk/course/format/sciencelab/section.php?name=thelma).

Teaching duties also include up to two weeks of face-to-face teaching annually at one of our engineering residential schools held during July and August. Teaching at The Open University is a team-based collaborative process, which allows unparalleled support for the training and induction of new staff into the teaching process.

It is also expected that the successful candidate will be an established researcher, either in Electronics or Electrical Engineering, or in a cognate discipline that aligns with one of the existing research areas of the School of Engineering & Innovation or of the wider STEM Faculty.

The successful candidate will be based at the main Open University campus in Milton Keynes.

Main Duties
All academic staff are expected to undertake a combination of the following duties at a level appropriate for their career stage:

1. Teaching
   a. To contribute to the development, planning, implementation and updating of a high quality and successful curriculum at undergraduate and/or postgraduate levels.
   b. To prepare learning materials suitable for the teaching and learning methodologies used by the Open University.
   c. To lead the development of the OpenEngineering Lab component of the OpenSTEM Labs
   d. To contribute to the briefing, debriefing and training of part time teaching staff (Associate Lecturers).
   e. To contribute to the direction of teaching and assessment / examination by the University, monitoring of samples of marking by Associate Lecturers, and to act as a member of examination boards.
   f. To contribute to the assurance and enhancement of the quality of teaching, learning and research within the School of Engineering & Innovation and the wider STEM Faculty, and in line with University standards.
   g. To undertake professional development as an academic educator.

2. Research
   a. To undertake a self-directed programme of collaborative research and scholarship in field that will contribute to the strengths of the School of Engineering & Innovation and the wider STEM Faculty, and at a level commensurate with the current standards of excellence in the Faculty.
   b. To generate significant grant income as appropriate.
   c. To undertake research that is internationally excellent and leads to high-impact publications.
   d. To attract and supervise postgraduate research students.
   e. To participate in and host School and Faculty seminars and workshops aimed at sharing research outcomes and fostering interdisciplinary collaboration.
   f. To undertake professional development as an academic researcher.
3. Outreach and Public Engagement
a. To contribute to the outreach activities of the STEM Faculty.
b. To participate in the national and international STEM community and learned societies.
c. To enhance the reputation of the School, the Faculty and the University through scientific meetings and other activities.

4. Enterprise and Impact
a. To apply/bid for, deliver, and manage individual enterprise activities (e.g. academic supervision of knowledge transfer programmes, consultancy).
b. To further Faculty interests by developing and maintaining a network of contacts and engagements with businesses and government bodies as appropriate.
c. To initiate and sustain activities that enhance the impact of your research and scholarship.
d. To pursue external collaborations as part of the OpenSTEM Labs team

5. Administration & Management
a. To engage with appropriate administrative tasks (e.g. workload planning, Career Development & Staff Appraisal).
b. To contribute effectively to relevant academic or management fora.
c. To undertake a programme of continuous professional development.

6. Other Responsibilities
a. To comply with the University’s Health and Safety and Equal Opportunities policies in the performance of duties.
b. To co-operate with the Open University in ensuring as far as necessary, that Statutory Requirements, Codes of Practice, University Policies, and School Health and Safety arrangements are complied with.
c. To have a strong commitment to the principles and practice of equality and diversity.

3. Person specification

Requirements  (E = Essential/ D = Desirable)

Education, qualifications and training

| Essential: | • Honours degree or equivalent in Electronic or Electrical Engineering or a closely-aligned subject |
| Desirable:  | • A Masters degree, PhD, or equivalent in a relevant discipline |
|            | • Higher Education professional accreditation or equivalent qualification |
|            | • Membership of relevant professional institution |

Knowledge, work and other relevant experience

| Essential: | • Ability to develop new distance learning material at all levels in the field of Electronic/Electrical Engineering |
|            | • Ability to design laboratory-based resources for learning and developing skills for practical enquiry |
|            | • Ability to work at the software/hardware interface of a multi-user, web-accessed, LabView-based system for running student electronic engineering experiments (i.e. our OpenEngineering Lab) |
- Ability to contribute to teaching across a broad range of Engineering disciplines
- Good experience of teaching support, training or supervision in a relevant subject area
- A broad knowledge of developments within the Engineering area relevant to teaching or research needs
- Evidence of securing external funding, taking into account stage of career
- A strong record of demonstrable research impact, commensurate with stage of career
- Ability to develop new research collaborations within the University and with external organisations
- A strong publication record in mid to top-ranking peer reviewed journals, commensurate with stage of career

**Desirable:**
- Experience of producing online and/or distance learning materials
- Experience of managing post-doctoral workers and research budgets
- Experience of working in/with industry
- Experience of working with and influencing policy makers, governmental and/or non-governmental institutions

**Personal abilities and qualities**

**Essential:**
- Ability to work collaboratively with others in an interdisciplinary context for teaching or research
- Leadership experience in teaching and/or research, commensurate with stage of career
- The ability to write on issues outside of immediate area of expertise but in a related topic, in an informed and coherent manner
- Enthusiasm for supporting distance learning by adults and for the application of new technologies to teaching and supporting students
- Ability to participate in a research programme compatible with the STEM Faculty research strategy and the interests of other research groups in the School and Faculty
- The ability to work adaptively and responsively with a variety of colleagues in multidisciplinary teams
- Excellent communication skills, both oral and written in a variety of contexts, including the ability to offer and receive constructive criticism
- Ability to plan and organise work to agreed deadlines
- Commitment to the aims, ethos and values of the Open University

**Desirable:**

**4. Role specific requirements e.g. Shift working**

**5. About the unit/school**

**Faculty of Science, Technology, Engineering and Mathematics**
The newly formed Faculty of Science, Technology, Engineering and Mathematics (STEM) comprises:

- School of Computing & Communications
- School of Environment, Earth & Ecosystem Sciences
School of Engineering & Innovation
School of Life, Health & Chemical Sciences
School of Mathematics & Statistics
School of Physical Sciences
Knowledge Media Institute
Deanery including teams supporting Curriculum, Research and Enterprise, Laboratory Infrastructure and Faculty Administration

“We aspire to be world leaders in inclusive, innovative and high impact STEM teaching and research, equipping learners, employers and society with the capabilities to meet tomorrow’s challenges”

The STEM Faculty consists of 700 staff and 1,800 Associate Lecturers. The Faculty delivers over 185 modules across undergraduate and postgraduate curriculum, supporting more than 20,000 students (full time equivalents) which is 29% of the OU total.

The Faculty generates more research income (circa £20M pa) than any other Faculty in the University, supported by a comprehensive laboratory infrastructure.

We are proud of our distinctive values and capabilities underpinning our aspiration:

We are inclusive:
• We transform people’s lives, ensuring STEM education is openly accessible to many thousands of students from diverse backgrounds – our students express high satisfaction with their study experience
• We engage the public in exciting citizen science and engineering, including through free open educational resources, multi-platform broadcasting, outreach to inspire the next generation and with programmes to encourage more women into STEM

We are highly innovative:
• We are at the forefront of innovative developments in teaching practical science and engineering at a distance, through remote access laboratories and practical on-screen experimentation (i.e. the OpenSTEM Labs)
• Our high quality teaching and curriculum are informed by world-leading research, strong links with professional bodies and communities of practitioners, as well as by scholarship focused on continuously improving our STEM pedagogy

We deliver significant social and economic impact:
• We provide STEM higher education at a scale and reach unsurpassed in the UK, with a sizeable international reach and further growth potential
• We inject transferable STEM skills and knowledge direct into the workplace for immediate employee and employer benefit, as students combine study while working
• The employability value of our courses is underpinned by accreditation from leading STEM Professional Bodies and Learned Societies, as well as partnerships and sponsorship with leading employers
• Our high quality, applied and academically relevant teaching and research addresses real-world issues, delivering impact for industry and society, including addressing pressing STEM skill-shortages across the UK

School of Engineering & Innovation
The School of Engineering and Innovation is one of the largest Schools in the STEM Faculty, with circa 80 academic staff and around 40 full-time PhD students. It is a broad-based multidisciplinary School that leads the OU’s teaching in the areas of Engineering, Technology and Innovation Management, Design, Systems Thinking and Environmental Management. We support qualifications including the IMechE, IET, IED and CIBSE accredited BEng/MEng, the IED accredited BA/BSc in Design and Innovation, the BSc in Environmental Management and Technology, the MSc in Engineering, the MSc in Technology Management, the MSc in Systems Thinking in Practice, and the IEMA accredited MSc in Environmental Management.
The School is one of the most research-intensive in the University, hosting two submissions in REF2014 from Materials Engineering and Design. Other areas of active research within the School that have contributed to the university’s REF2014 submissions include Energy, Acoustics, Waste Management, and Systems Thinking.

Research areas within the School and across the STEM Faculty that are relevant to this post:

**Energy**
The Energy research area has received significant investment in recent years. This has led to the newly formed OU Energy venture, bringing together the diverse range of energy-related research performed across the whole university. Further details of this initiative can be found at [http://energy.open.ac.uk](http://energy.open.ac.uk)

**Computing and ICT**
Research in Computing and ICT is interdisciplinary and human-centred, considering technological developments in the context of broader socio-technical systems. We are interested in how technology is designed, developed, evaluated and used for human purposes. Further details of the different areas of research in which we are involved can be found at: [http://crc.open.ac.uk/](http://crc.open.ac.uk/)

**Acoustics**
The Acoustics Research Group has been in existence for over thirty years, carrying out internationally leading research in the fields of environmental acoustics, musical acoustics and the development of acoustical measurement techniques.

Research group facilities include two anechoic chambers, a laser laboratory, an ultra high speed camera, a Laser Doppler Velocimeter, professional quality microphones, as well as a wide range of measuring apparatus and high performance computing equipment.

Further details can be found at [http://acoustics.open.ac.uk/](http://acoustics.open.ac.uk/)

**Design**
The Design Group’s research strategy is formed around three main themes. In Sustainable Design, key themes are energy efficient products and services coupled with scoping and envisioning radical futures through theory, modelling and analysis of the routes to sustainable futures. The Complexity theme is thriving with exciting new work both on designing complex systems and the complexity of design processes. The Design Processes and Products theme draws together several threads in setting out a distinctive position for Design knowledge and theory across domains and sectors.

This work is complemented by research in Design Computation, including generative design, CAD, sketching, 3D scanning, rapid prototyping and digital imaging, with well equipped labs to support this work. Applications to industrial practice in the group, especially through groundbreaking work in engineering change processes and product redesign, has particular reference to energy efficiency, especially over product life cycle.

Further details can be found at [http://design.open.ac.uk/index.htm](http://design.open.ac.uk/index.htm)

**Materials Engineering**
The Materials Engineering community at the OU is one of the leading materials research groups in the UK with a focus on engineering application. It comprises 12 academic staff, 6 technical support staff, 7 post-doctoral researchers, 12 PhD students, and an extended community of interest embracing energy and transport themes within the School as well as atomic/molecular science based materials research elsewhere within the STEM Faculty.

The Materials Engineering laboratories are well equipped for diffusion bonding and brazing, for electropulse processing, for residual stress measurement using various mechanics-based methods and X-ray diffraction, for mechanical testing, for creep testing (using digital image correlation (DIC) strain monitoring), and for metrology, microstructural examination and hardness characterisation. A dedicated workshop with a wire electro-discharge machining suite supports the research programmes and enterprise activities.

Further details can be found at: [http://mct-research.open.ac.uk/research/Materials_Engineering](http://mct-research.open.ac.uk/research/Materials_Engineering)
Integrated Waste Systems
Integrated Waste Systems, or IWS, is a multidisciplinary research group which aims to deliver sustainable resource management solutions. A key feature of the research is working with stakeholders - with government bodies to provide evidence and policy-relevant understanding and with businesses to develop practical solutions to real world waste management problems. Our work focuses on reducing the impact of waste on the environment, health and climate change through technological, organisational and behavioural approaches.

Further details can be found at http://www9.open.ac.uk/mct-ei/research/integrated-waste-systems

6. How to obtain more information about the role or application process
If you would like to discuss the particulars of this role before making an application please contact the Head of the School of Engineering & Innovation, Professor David Sharp, by phone +44(0)1908 653353 or by email to STEM-EI-HOS@open.ac.uk.

If you have any questions regarding the application process please contact Janie Barker on +44 (0)1908 653665 or email: STEM-Recruitment@open.ac.uk.

7. The application process and where to send completed applications

| Your application should contain: | 1. A completed short application form  
2. Covering letter  
3. CV which includes details of academic qualifications, teaching, management, and research experience including grants received and publications. |
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<tr>
<td>Please ensure that your application reaches the University by:</td>
<td>Noon, 20 March 2018</td>
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<tr>
<td>E-mail your application to:</td>
<td><a href="mailto:STEM-Recruitment@open.ac.uk">STEM-Recruitment@open.ac.uk</a></td>
</tr>
<tr>
<td>Or post it to Name/Job title:</td>
<td>Janie Barker, Staffing Adviser</td>
</tr>
<tr>
<td>Unit:</td>
<td>Deanery, Faculty of Science, Technology, Engineering &amp; Mathematics</td>
</tr>
<tr>
<td>Address:</td>
<td>The Open University, Walton Hall, Milton Keynes, MK7 6AA</td>
</tr>
</tbody>
</table>

8. Selection process and date of interview

| The interview panel will be chaired by: | Professor David Sharp, Head of School, Engineering & Innovation |
| The other members of the interview panel will be: | Mr Jan Kowal, Director of Teaching, Engineering & Innovation |
| | Professor Nick Braithwiate (Associate Dean (Academic Excellence ) |
| | Other panel members to be confirmed |
| The interviews will take place on: | TBC |
For shortlisted candidates, the selection process for this post will include:

| 1. A short, specified teaching activity to be completed before the interview date; |
| 2. A presentation of an aspect of your research to a small panel. |
| The teaching text and presentation will be discussed with you as part of the interview process. |

- We will let you know as soon as possible after the closing date whether you have been shortlisted for interview. Further details on the selection process will be sent to shortlisted candidates.

Applications received after the closing date will not be accepted.