School of Mathematical and Physical Sciences
Department of Physics & Astronomy
Electrical Engineer in Quantum Device Engineering (Fixed term initially 6 months, with possibility of long term extension, full time)
Salary range: starting at £32,004 and rising to £38,183 per annum
Expected start date: 1/2/2017 or as soon as possible thereafter

Applications are invited for an Electrical Engineer in the Ion Quantum Technology Group in the Sussex Centre for Quantum Technologies in the Department of Physics & Astronomy at the University of Sussex. The position is part of the UK National Quantum Technologies programme.

The successful development of quantum technologies are set to revolutionise the world we live in. Stable current supplies are a core ingredient for trapped-ion quantum technologies such as quantum computers and quantum sensors with exceptional requirements put on current supplies used in experiments focusing on high fidelity coherent operations. Specifically, the Ion Quantum Technology group at the University of Sussex is currently working towards the successful development of a quantum computer demonstrator device which is based on locally applied currents and globally applied long-wavelength (rf and microwave) radiation fields. As such, a core requirement are current sources which supply a very stable output current with an output level in excess of 10 A and in some cases requires this to be combined with the ability to drive a high inductive load and perform fast and precise control operations of the output level. The successful candidate will work on a project aiming to construct a quantum computer demonstrator device and as part of this develop devices such as a versatile control unit which allows for fast control of the output level of ultra-stable current supplies when driving high inductive loads with capabilities including fast on/off switching (1 μs) and the generation of user-defined output waveforms. This particular part of the work will be undertaken in close collaboration with the industry partner for this project who are a leading manufacturer and supplier of ultra-stable current supplies. The successful applicant will work closely with the industry partner to ensure that the control unit can be fully integrated into the new range of ultra-stable current supplies and thereby combine the ultra-high stability with the versatile features offered by the control unit.

The successful applicant should have considerable experience in the development of advanced rf-based electronics, preferable with experience in developing marketable electronics products. A PhD is not required but may be useful in the appropriate area. Some of the typical tasks for this position include the development of advanced electronics which may range from the designing, building and testing of prototypes to the full development of products which are ready for market. The salary offered will be appropriate to the qualifications, standing and experience of the successful candidate.

The Ion Quantum Technology Group is one of the world’s leading centres for the implementation of trapped-ion quantum computing and simulation. The group is part of the UK Quantum Technology Hub on Networked Quantum Technologies and the UK Quantum Technology Hub for Sensors and Metrology. The group currently spans 4 Postdoctoral Fellows, 14 PhD students and 6 undergraduate students and one member of faculty. The group has collaborations with multiple industry partners as well as with universities and other research facilities around the world.
The city of Brighton & Hove has everything - sun, sea, brilliant clubs, great places to eat, fabulous shops, a truly cosmopolitan vibe and is located only 50min from central London. Located on the beach, Brighton boasts beautiful seaside views and beaches, boating, sports and beach activities. The South Downs provide breathtaking views, tranquil walks and plenty of opportunities for mountain biking, hiking or picnics.

A short film about Professor Hensinger’s work can be found here. A popular science lecture given by Prof. Hensinger explaining the principles of quantum computing at the US Department of Energy can be found here.

Some recent media coverage about the group’s work can be found here:
Profile interview with Prof Winfried Hensinger
The supercomputer of the future? BBC NEWS
BBC Radio 4 Today
Quantum computing breakthrough: UK scientists develop technique to greatly simplify trapped ions International Business Times
BBC WORLD SERVICE World Update
New Scientist

You can find out more about the group at:
http://www.sussex.ac.uk/physics/iqt/

For more information, please email the head of group,
Prof Winfried Hensinger
(Professor of Quantum Technologies)
(w.k.hensinger@sussex.ac.uk).

Closing date for applications: 18 January 2016

Please include with your completed application form a CV, cover letter, the contact details of three referees and a list of relevant publications.

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

The University of Sussex is committed to equality of opportunity

2 The University

About the University of Sussex

The University of Sussex was the first of the new wave of universities founded in the 1960s, receiving its Royal Charter in August 1961. Nearly 50 years on, the University has become a leading teaching and research institution. In the 2008 Times Higher Education University World Rankings, Sussex was ranked in the top 20 in the UK, the top 50 in Europe, and the top 150 worldwide.

Innovative research and scholarship
Sussex is a leading research university, as reflected in the 2008 Research Assessment Exercise. Over 90 per cent of Sussex research activity was rated as world leading, internationally excellent or internationally recognised, confirming the University among the leading 30 research universities in the UK, on a simple average across all scores. 18 subjects rank in the top 20 for research in the UK, across the arts, sciences and social sciences, with American studies ranked number 1 in the UK, Politics number 2, and Art history number 3.
Teaching and learning
The University of Sussex has over 10,000 students, of which almost 3,000 are postgraduates. Creative thinking, pedagogic diversity, intellectual challenge and interdisciplinarity have always been fundamental to a Sussex education.

Our goal is to deliver teaching and learning programmes that are informed by current research, are attractive to students from all socioeconomic and cultural backgrounds, and which deliver skills for life.

We are currently expanding our degree programmes in popular areas such as biomedical science, business and management, digital media, international security, modern languages, and science and enterprise.

Our staff
Sussex has developed a reputation for innovation and inspiration, and attracts leading thinkers and researchers. We have counted three Nobel Prize winners, 13 Fellows of the Royal Society, six Fellows of the British Academy and a winner of the prestigious Crafoord Prize on our faculty.

International Sussex
From its foundation, Sussex has had an international perspective to its academic activities and its outlook. The University attracts staff and students to its campus from over 120 different countries across the world. Nearly a third of staff come from outside the UK.

Our research tackles major world issues, with leading areas of expertise such as climate change and development studies. The University has extensive links with many institutions worldwide, such as Peking University, National Taiwan University and the Harvard-Sussex programme.

Campus life
Sussex has one of the most beautiful campus locations in Britain. Situated in rolling parkland on the edge of Brighton, the campus combines award-winning architecture with green open spaces. The campus is surrounded by the South Downs National Park, but just a few minutes away from the lively city of Brighton & Hove.

Designed by Sir Basil Spence, the buildings that make up the heart of the campus were given listed building status in 1993. Falmer House is one of only two educational buildings in the UK to be Grade I listed in recognition of its exceptional interest.

Business and the community
Sussex has a long tradition of engaging with business and the community, which continues today through activities such as the Sussex Innovation Centre, public lectures and service to the community. Our goal is to help businesses and organizations in the region develop higher staff skill levels through training, and to stimulate innovation through partnership with other institutions outside Sussex to benefit the wider society.

The Sussex Innovation Centre provides support for the creation and growth of technology- and knowledge-based companies in Sussex. The Centre is now a thriving business environment for nearly 80 high-growth companies. Since its creation over 160 companies have been based at the Centre; their cumulative revenue is now over £250 million and the companies currently employ many hundreds of people in the local area.
3. **Senior leadership and management**

The Vice-Chancellor (Professor Adam Tickell) 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 Deputy Vice-Chancellor, the two 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 and the Librarian report to the Deputy Vice-Chancellor.

4. **The School of Mathematical and Physical Sciences**

The School of Mathematical and Physical Sciences was created in 2009 as part of a University wide restructuring. It brings together two outstanding and progressive departments – Mathematics, and Physics and Astronomy. The School aims to capitalise on the synergy between these subjects to deliver new and challenging opportunities for faculty and students.

The School of Mathematical and Physical Sciences combines pioneering research and stimulating teaching in an interdisciplinary academic setting. The faculty work at the frontiers of their fields, as is reflected in the recent growth of both subjects. Each department has a number of thriving research groups and links with outside agencies.

**The Department of Physics and Astronomy**

The Physics & Astronomy Department currently has 39 faculty divided into four research groups: Astronomy; Theoretical Particle Physics; Experimental Particle Physics; and Atomic, Molecular & Optical Physics.

In the highly acclaimed Thomson Scientific 2006 ranking of the research impact of all departments in UK universities, the University of Sussex came top in Physics and in Space Science/Astronomy. It was ranked 8th in the UK in the Research Assessment Exercise of 2008. It was ranked 5th in Great Britain and 37th in the world according to the Times Higher Education World University Rankings (2010). Sussex is ranked 5th in UK for Physics in the Times Good University Guide (2013), and scored 100% for overall satisfaction in the 2013 National Student Survey.

We are part of the South East Physics Network (SEPNet) - a consortium of nine physics departments of the University of Sussex, University of Kent, Queen Mary University of London, Royal Holloway University of London, Southampton University, University of Surrey, University of Portsmouth, University of Hertfordshire, and the Open University. This has been awarded substantial government funding (from HEFCE) to support vital UK science research, teaching and development.

The Department has approximately 350 undergraduate students, 30 MSc students, 50 PhD students and 15 postdoctoral fellows.

**Research groups**

4.1. **The Astronomy Centre**
Current research interests are: physics of the early Universe; constraining cosmological models; numerical simulations of structure formation; extragalactic survey science; and galaxy formation and evolution. The first of these has strong overlaps with the Theoretical Particle Physics group.

The Centre consists of 12 permanent faculty members: Chris Byrne (Royal Society URF), Ilian Iliev, Antony Lewis, Jon Loveday, Seb Oliver (Director of Research & KE for the School), Kathy Romer, Mark Sargent, David Seery, Robert Smith, Peter Thomas (Director of the Astronomy Centre), Stephen Wilkins; there are currently 8 postdoctoral researchers and 22 PhD students. The group’s main source of funding comes from a consolidated grant Science and Technology Facilities Council (STFC) and EU funding in the form of Starting, Consolidator and Cooperation grants.

The Centre’s activity is focused around three themes: Theoretical cosmology, with focus on inflationary cosmology, the cosmic microwave background, dark energy, and statistical methods; Simulations/modelling of reionization, large-scale structure, galaxy and cluster formation; Observations; surveys of galaxies and clusters from the infra-red through to X-ray.

We have major roles in extra-galactic surveys: Seb Oliver coordinates the Herschel Multi-tiered Extra-galactic Survey (HerMES) and EU funded Herschel Extra-galactic Legacy Project (HELP); Kathy Romer leads the XMM Cluster Survey (XCS); Jon Loveday leads the Galaxy Mass Assembly (GAMA) spectra working group. We are partners in various supercomputing collaborations including COSMOS and VIRGO. We have key roles in Cosmology and Dark Energy studies including Planck and the Dark Energy Survey.

The Centre has access to substantial computing resources, including locally and various supercomputing consortia.

The Astronomy Centre’s web site is http://www.sussex.ac.uk/astronomy/

4.2. The Atomic, Molecular & Optical (AMO) Physics Group

Research in the AMO group at Sussex is devoted to the study of fundamental physics and quantum effects and technologies using the techniques of atomic and laser physics. The research covers both experimental and theoretical AMO physics.

There are six experimental faculty in the AMO group. Winfried Hensinger is developing new quantum technologies using trapped ions. His group is developing a quantum simulation engine and they are in the process of constructing a large-scale trapped-ion quantum computer. Another research area is the development of portable quantum sensors. Peter Kruger, is starting a major activity in Quantum Systems and Technologies. This will involve a range of experiments and device development at the interface of cold atomic and condensed matter physics. Matthias Keller is investigating the interaction of single photons and ions assisted by optical cavities with the aim of generating large scale entangled states and developing quantum networks. His work also includes the physics of trapped molecular ions. Alessia Pasquazi is working on ultra-fast photonics and also on optical sources for quantum technologies. Marco Peccianti's research is focused on Tera-Hertz Imaging and applications of Tera-Hertz radiation. Jose Verdu's team is developing a novel Penning trap technology based upon superconducting microwave transmission-lines. This work has applications to circuit-QED with trapped electrons, quantum metrology and mass spectrometry.

There are four theorists in the AMO group. Jacob Dunningham (AMO group leader) is investigating Bose-Einstein condensates and quantum technologies with a particular emphasis on quantum metrology, sensing, and imaging. Claudia Eberlein works on quantum
field theory applied to atomic, optical, and nano-physics. Barry Garraway is developing new kinds of atom traps with applications to quantum information and quantum metrology and in addition works on cavity QED and non-Markovian dynamics. Diego Porras applies the techniques of quantum optics to condensed matter systems.

Along with the faculty there are currently 14 research fellows and 40 PhD students in the AMO group. Sources of funding include the European Union, EPSRC and European and national research networks on quantum information processing. The Atomic, Molecular & Optical Physics group web site is http://www.sussex.ac.uk/amo

4.3. The Experimental Particle Physics (EPP) Group

The Sussex EPP group counts ten permanent faculty members, plus one Emeritus Professor. The group’s main source of funding is the Science and Technology Facilities Council (STFC), with additional support from the European Research Council (ERC) and the Royal Society.

Antonella De Santostefano, who is also the EPP Group Leader, together with Fabrizio Salvatore has established and leads a fast-growing team working on the ATLAS experiment at the CERN Large Hadron Collider (LHC). The other ATLAS faculty members are Lily Asquith, Alessandro Cerri and Iacopo Vivarelli. The group has a long-standing leadership in the search for supersymmetry at ATLAS, and also leads in the areas of jet physics, Higgs physics, flavour physics, and top physics. Sussex also holds key responsibilities in the ATLAS High-Level Trigger (HLT) system, including in view of future LHC and ATLAS upgrades. It also has a major role in the proposed Level-1 tracking trigger project, for use by ATLAS at the High-Luminosity LHC.

Historically, the Sussex EPP is world-renowned for its high-precision measurement of the neutron electric dipole moment (EDM). The EDM is uniquely sensitive to physics beyond the Standard Model, and the group is currently involved in the nEDM experiment at the PSI. Philip Harris leads this effort at Sussex together with Clark Griffith and Visiting Senior Lecturer Mike Hardiman.

Sussex EPP also boasts a vibrant and expanding programme of neutrino physics. Sussex is one of the leading UK institutes involved in the SNO+ experiment, which seeks to determine whether the neutrino is its own antiparticle by searching for neutrino-less double-beta decays. Simon Peeters leads the SNO+ effort at Sussex, together with Lisa Falk and Jeff Hartnell. Additionally, Jeff Hartnell was recently awarded substantial ERC funding to work on the Fermilab-based NOvA neutrino oscillation experiment and the future long-baseline programme (LBNE/LBNF). Peeters and Falk are also involved in LBNE/LBNF.

Sussex EPP currently has ten postdoctoral level researchers, eleven PhD students, three engineer/technician posts directly involved in EPP research, and a Linux system administrator. We have a number of well-equipped laboratories, and we enjoy good access to the University’s technical facilities, including shared technicians. Sussex EPP researchers have uncontended access to a dedicated Grid Tier-3 cluster, and Sussex is a member of the SouthGrid Tier-2 grouping of Grid-enabled research institutions in the South of England.

Sussex EPP has close links with colleagues in the Sussex Theoretical Particle Physics group and with other partners in the SEPnet consortium.

The Experimental Particle Physics group web site is http://www.sussex.ac.uk/epp
4.4. The Materials Physics Group

This is a new research group set up by Professor Alan Dalton who joined the Department from Surrey University in February 2016.

A number of new appointments are underway.

The group will focus on understanding the fundamental structure-property relationships in materials containing one- and two-dimensional structures such as carbon nanotubes, graphene and other layered nanomaterials. Prof Dalton is particularly interested in developing viable applications for nano-structured organic composites (mechanical, electrical and thermal). He is also interested in the directed-assembly and self-assembly of nanostructures into functional macrostructures and more recently interfacing biological materials with synthetic inorganic and organic materials and associated applications.

The Materials Physics group webpage is http://www.sussex.ac.uk/materials-physics/

4.5. Sussex Centre for Quantum Technologies

The Sussex Centre for Quantum Technologies is focused on the exploitation and development of disruptive quantum technologies. The Centre hosts ten research groups covering the broad spectrum of quantum technologies as well as hosting a number of associate member groups that share significant overlap with our mission.

Our research groups are involved in the UK Quantum Technology Hub on Networked Quantum Information Technologies and the UK Quantum Technology Hub for Sensors and Metrology as well as DSTL initiatives, Centres for Doctoral Training and numerous national and international collaborations. The centre is integrated within the UK National Quantum Technology Programme. The centre leadership consists of Prof. Winfried Hensinger (director) and Prof. Jacob Dunningham (deputy director).

The Centre’s five experimental research groups are led by Prof Winfried Hensinger (Ion Quantum Technology), Dr Matthias Keller (Ion Trap Cavity-QEG and Molecular Physics), Prof Peter Krueger (Quantum Systems and Technologies), Dr Alessia Pasquazi (Ultrafast Photonics), Dr Marco Peccianti (Tera-Hertz Imaging), and Dr Jose Verdu (Electrons in Quantum Circuits). The centre also hosts ground breaking theory groups led by Prof Claudia Eberlein (Quantum Field Theory in AMO), Prof. Jacob Dunningham (Quantum metrology, Bose-Einstein condensates and Entanglement), Prof Barry Garraway (Trapped Ultracold Atoms &Theoretical Quantum Optics) and Dr Diego Porras (Quantum optics and condensed matter systems).

The Sussex Centre for Quantum Technologies features numerous state-of-the-art quantum technology laboratories along with key infrastructure. In addition to the high quality research environment, training plays an integral role and the centre hosts the pioneering MSc in Frontiers of Quantum Technology as well as carrying out specialized quantum technology training for doctoral and postdoctoral researchers.

The Sussex Centre for Quantum Technologies web page is http://www.sussex.ac.uk/scqt/

4.6. The Theoretical Particle Physics (TPP) Group

The current research activities in the group are: particle astrophysics and cosmology, including cosmological phase transitions, baryogenesis, topological defects, inflation, dark
matter, and dark energy; collider and low-energy phenomenology, including Higgs and BSM physics, flavour, QCD, supersymmetry and extra dimensions; and quantum field theory, including quantum gravity, tests the asymptotic safety conjecture, the renormalisation group, effective theory and strong coupling phenomena,

The group consists of Andrea Banfi, Xavier Calmet, Mark Hindmarsh, Stephan Huber (group leader), Sebastian Jaeger, Daniel Litim, Veronica Sanz, Emeritus Professors David Bailin and Norman Dombey, two Postdoctoral Research Fellows, and about 20 PhD and MSc students. The group maintains a research consortium with Royal Holloway (Nikolas Kauer) and University College London (Frank Deppisch). The group’s research funding comes mainly from the UK Science and Technology Facilities Council (STFC), and is also supported by the European Science Foundation and the Higher Education Funding Council for England.

The group has close links with both the Experimental Particle Physics and Astronomy research groups, and is a member of the NExT Institute, a regional collaboration for particle physics phenomenology. It benefits from excellent computing resources including a Linux-based system of workstations and servers and access to the University’s High Performance Computing cluster.

The Theoretical Particle Physics group web page is http://www.sussex.ac.uk/tpp/

The Ion Quantum Technology group is headed by Prof. Winfried Hensinger. Their aim is to develop new quantum technologies, in particular, the trapped ion quantum computer as well as trapped ion quantum simulators and trapped ion quantum sensors. For this purpose, research focuses on applied experimental quantum information science, quantum devices engineering, quantum control and large scale entanglement generation. We also develop a new generation of quantum microchips based on Silicon manufacturing technology that provide the core for the quantum technology devices we develop. We are in the process of constructing a quantum simulation engine and a large-scale trapped-ion quantum computer. We also develop portable quantum sensors. The group is part of the UK Quantum Technology Hub on Networked Quantum Technologies and the UK Quantum Technology Hub for Sensors and Metrology.

Further details of the IQT group can be found on the web page: http://www.sussex.ac.uk/physics/iqt

5 Job Description

Job Title: Electrical Engineer in Quantum Device Engineering
Grade: Technical Staff, Grade 7
School: Mathematical and Physical Sciences
Location: Pevensey II
Responsible to: Prof Winfried Hensinger through to Head of School
Direct reports: n/a
Key contacts: Prof Winfried Hensinger

Role description: Electrical Engineer in Quantum Device Engineering is an early career-grade position. Post-holders will be expected to contribute to the work of the research team, leading the development of quantum technology sub systems alongside a world-leading team, and also to develop their skills with support from more experienced members of staff.

PRINCIPAL ACCOUNTABILITIES

To engage in individual and/or collaborative research activity resulting in marketable products; and to knowledge exchange income individually or in collaboration with others, as appropriate.

KEY RESPONSIBILITIES

General duties:

- Carry out technical development tasks as needed for the timely advancement of research projects. Interfacing with the Principal Investigator on a regular basis to discuss results and project progression/direction. Prepare, collate, analyse and interpret research data, drawing conclusions on the outcomes and contribute to collaborative decisions with colleagues in areas of research.

- Conduct technical development individually and in collaboration with others.

- Responsible for the preparation/development of special (i.e. not generally commercially available) materials, compounds or equipment (electrical, electronic or mechanical).

- Analyse and interpret technical development findings and draw conclusions on the outcomes.

- Individually or with colleagues, explore opportunities for enterprise activity, knowledge exchange income and/or consultancy, where permissible.

- Order non-routine apparatus and materials to maintain 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, making decision on purchases to ensure that the budget is maintained. Provide budgetary advice to the Principal Investigator.

- Ensure that adequate records of methods, sample details and results are prepared and maintained within the associated specific research project/s.

- Attend group meetings and communicate with other group members on group-wide and project specific issues.

- Build internal contacts and participate in internal networks and relevant external networks in order to form relationships and collaborations.
- Continually update knowledge and understanding in field or specialism, and engage in continuous professional development.

- Support advancement of student technical skills and supervision of student projects if required.

- Assist in the development of relevant student skills.

- Undertake additional duties, as required by the Principal Investigator.

**Role-specific duties**

- Development, construction and operation of specialized electronics for the operation of quantum technology devices
  - This involves using our state-of-the-art facilities to develop specialized state-of-the-art electronics required for the operation of world-leading quantum technology devices.
  - Assistance in the operation of quantum technology devices to characterise and optimize relevant electronic sub systems.

- Support of undergraduate and postgraduate students
  - Helping and support for undergraduate and postgraduate students in the group regarding technical related matters.

This Job Description sets out 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.
6 Person Specification

ESSENTIAL CRITERIA

1. Normally educated in electrical engineering, or other equivalent qualification, or appropriate level of experience, as appropriate to the discipline (see role-specific criteria below).

2. Evidence of engagement in the development of advanced electronics.

3. Ability to work individually on own initiative and without close supervision, and as part of a team.

4. Ability to operate test equipment such as a network analyzer, impedance analyser and LCR meter.

5. Ability to exercise a degree of innovation and creative problem-solving.

6. Excellent organisational and administrative skills.

7. Ability to prioritise and meet deadlines.

8. Excellent IT skills.

9. Willing to travel in order to work with external industry partner

DESIRABLE CRITERIA

1. Experience in developing marketable electronics products.

2. Knowledge of electronics design software such as ADS

ROLE-SPECIFIC CRITERIA

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<thead>
<tr>
<th>SKILLS / ABILITIES</th>
<th>Essential</th>
<th>Desirable</th>
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<tr>
<td>Ability to work as part of a team and also to take on the role of team leader with the aptitude to motivate others when required.</td>
<td>✓</td>
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<tr>
<td>Proven ability to work independently and use initiative where appropriate.</td>
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<td>Ability to develop advanced electronics</td>
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<td>Skills in rf based circuit design</td>
<td>✓</td>
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<tr>
<td>Ability to operate HF testing equipment (e.g. network analyzer, Impedance analyser, LCR meter);</td>
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<tr>
<td>Good numerate and literate skills, written and oral (English)</td>
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Clear leadership potential in the specific area ✓

**KNOWLEDGE**

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<th>Essential</th>
<th>Desirable</th>
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<tr>
<td>Understanding of the principles/fundamentals to perform engineering calculation/design of load matching networks ✓</td>
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<td>Good level of knowledge in electronics manufacturing processes ✓</td>
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<td>The successful applicant is required to have sufficient knowledge and/or expertise to work on day to day issues in own area without direct or continuous reference to others. ✓</td>
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**EXPERIENCE**

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<tr>
<th>Essential</th>
<th>Desirable</th>
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<tr>
<td>Possession of a breadth and/or depth of experience showing full working knowledge and proficiency of own area of expertise and the ability to discharge the role effectively and efficiently ✓</td>
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<td>Design experience of PCBs tailored for rf ✓</td>
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<td>Advanced testing and characterisation experience of complex circuits ✓</td>
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<td>Experience in active (fast) stabilisation of electrical currents ✓</td>
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<td>Experience in the development of scientific instruments ✓</td>
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**QUALIFICATIONS**

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<tr>
<th>Essential</th>
<th>Desirable</th>
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<tr>
<td>Normally expected to have a Degree in a relevant field ✓</td>
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<tr>
<td>Educated in electrical engineering ✓</td>
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<td>A proven track record of experience in the development of advanced electronics ✓</td>
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**PERSONAL ATTRIBUTES AND CIRCUMSTANCES**

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<th>Essential</th>
<th>Desirable</th>
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<tr>
<td>Willing 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. ✓</td>
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<tr>
<td>Flexibility to work outside normal hours if required ✓</td>
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<td>Dependable and reliable ✓</td>
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<tr>
<td>Ability to work independently ✓</td>
<td></td>
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<tr>
<td>Active commitment to team work ✓</td>
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**Application process**

Application forms or any further information about the application process are available from and should be returned to the Human Resources Division, Sussex House, University of Sussex, Falmer, Brighton BN1 9RH, e-mail: mpsrecruitment@sussex.ac.uk. Applicants must complete an application form, enclose a CV, at least two (preferable three) references and a list of relevant publications.

Closing Date: 18 January 2016