Senior Lecturer
Department of Electronic Engineering

Closing date: 31 March 2019
Interview Date: To be confirmed
Vacancy reference: 7408
INTRODUCTION

In line with the Department of Electronic Engineering’s long-term plans for expansion, we are seeking to appoint two outstanding academics with research interests in the following areas:

(a) Electrical Engineering

or

(b) Signal Processing

We would particularly (but not exclusively) welcome applications from candidates with expertise in either (a) electric motors, drives or power systems applied to robotic or medical applications, or (b) signal processing applied to immersive & interactive technologies, or communication systems deployed in challenging environments.

It is expected that the post holder will have evidence of an international research record in (a) Electrical Engineering or (b) Signal Processing, their expertise making a significant contribution to the Department’s plans to expand research and develop impact in these areas.

Candidates should possess a clear research vision across:

(a) Electrical Engineering with particular emphasis on motors, drives or power systems,

or

(b) Signal processing with particular emphasis in audio & music technology systems or communication technologies.

You will devise, direct, and develop creative independent research projects generating external research funding. You will be expected to carry out individual and collaborative research, actively participate in research supervision, management and administration contributing to successful research outputs. You will also oversee, develop, and promote innovative teaching and learning approaches while also leading the design, development, and delivery of a range of academic modules.

The successful candidate will be capable of delivering excellent interdisciplinary and impactful research that advances your subject area nationally and internationally. Additionally, you will be collegiate and committed to enhancing the student experience through the delivery of an excellent teaching and learning experience for all our undergraduates and postgraduates.

This is an exciting time to join the Department with an opportunity to influence the development of Electronic Engineering research at the University of York.
Main purpose of the role

- To generate new research approaches and identify, adapt, develop and use research methodologies and techniques appropriate to the type of research and development undertaken

- To lead on and contribute to the production of research outputs, outcomes and impact

- To publish high impact research in quality journals, either as a sole author or in collaboration with others, and to devise, direct and develop research projects generating external research funding.

- To take responsibility for overseeing, developing and promoting innovative teaching and learning approaches and material, which create interest, understanding and enthusiasm amongst students

- To lead the design, development and delivery of a range of academic modules within the areas of electrical engineering or signal processing and ensure that design and delivery comply with the quality standards and regulations of the Department and University

- To undertake effectively a range of administrative and managerial responsibilities

Key responsibilities

(Role holders will be required to undertake some or all of the duties below)

Research and Scholarship

- To obtain new knowledge by theoretical and/or practical methods. To engage actively in research at a high level and to demonstrate intellectual leadership and achieve high visibility in the field, at national and international level

- To lead innovative research proposals, identify sources of funding, submit funding bids, and plan the research activities to be undertaken

- To ensure appropriate dissemination of research to a national or international audience by scholarly publication or other outputs appropriate to the relevant academic discipline

- To develop national and international research links and use expertise, experience and judgement to decide how to design and execute research work.

- To engage in external academic activities in accordance with the Department/University research strategy and to monitor research findings with a view to maximising impact and opportunities for commercial exploitation

- To plan, co-ordinate and lead research activities in accordance with a specific project plan through a research team or a group of staff involved in research. To manage the financial and physical resources of research activities and make decisions on the appointment of research staff and students

Teaching and Promotion of Learning

- To continually update knowledge and understanding in the field or specialism. To extend, transform and apply knowledge acquired from scholarship.

- To contribute to innovations in teaching and learning through the development of academic programmes and by developing innovative and appropriate teaching techniques and materials which create interest, understanding and enthusiasm amongst students

- To set and mark programme work, practical sessions, supervisions, fieldwork and examinations according to own area of subject specialism, and provide appropriate feedback to students
JOB DESCRIPTION

- To supervise, mentor and guide the work of staff and research students

Management and Administration

- To contribute to the wider academic community general life and work of the University through, for example, editing journals, refereeing papers, external examining, and involvement in professional bodies

- To support, supervise, train and direct students and other staff, as necessary, to maximise the research activity and outputs. This may include the line management of staff, including performance management and development responsibilities

- Contribute to the recruitment and selection of research, teaching and other staff

- Contribute to the administration and management of the Department to facilitate the effective operation of the Department and programmes of study
# PERSON SPECIFICATION

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<tr>
<th>Qualifications</th>
<th>Essential / Desirable</th>
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<tbody>
<tr>
<td>PhD in electrical engineering, electronic, engineering or computer science or equivalent experience</td>
<td>Essential</td>
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<td>Outstanding qualities and achievements in scholarship and research at a national and international level</td>
<td>Essential</td>
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<td>Appropriate academic professional and teaching qualifications or a willingness to complete the Postgraduate Certificate in Academic Practice</td>
<td>Desirable</td>
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<tr>
<th>Knowledge</th>
<th>Essential / Desirable</th>
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<tr>
<td>Knowledge in (a) Electrical Engineering or (b) Signal Processing, to design &amp; develop teaching programmes and the provision of learning support</td>
<td>Essential</td>
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<tr>
<td>Well-established national reputation in (a) Electrical Engineering, particularly in areas related to motors, drives or power systems, or (b) Signal Processing, particularly in areas related to audio &amp; music technology or communication technologies</td>
<td>Essential</td>
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<tr>
<td>Specialist knowledge in Electrical Engineering, particularly in areas related to motors, drives or power systems or Signal Processing, particularly in areas related to audio &amp; music technology or communication technologies</td>
<td>Essential</td>
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<tr>
<td>Research expertise in an area that will complement and enhance the Department’s research strategy and goals</td>
<td>Essential</td>
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<td>Knowledge of a range of teaching techniques to enthuse and engage students</td>
<td>Desirable</td>
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<th>Skills, abilities and competencies</th>
<th>Essential / Desirable</th>
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<tr>
<td>Ability to provide academic leadership in research and to lead a research team where appropriate</td>
<td>Essential</td>
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<td>Ability to motivate other staff in the areas of teaching and research</td>
<td>Essential</td>
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<td>Highly developed oral communication skills, including the ability to teach at any level within area of expertise, and across a range of subjects at a more introductory level, and demonstrate enthusiasm and commitment in the process of teaching</td>
<td>Essential</td>
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<td>Proven ability to take a leading role in the supervision of research students</td>
<td>Essential</td>
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<td>Ability to demonstrate major research leadership both internally and externally</td>
<td>Essential</td>
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<td>Ability to write and deliver presentations at conferences or exhibit work at other appropriate events internally and externally</td>
<td>Essential</td>
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<td>Excellent written communications skills, to write or contribute to publications or disseminates research findings using other appropriate media</td>
<td>Essential</td>
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<td>Ability to extend, transform, and apply knowledge from scholarship</td>
<td>Essential</td>
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<td>Ability to design teaching material and deliver either across a range of modules or within a subject area</td>
<td>Essential</td>
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## PERSON SPECIFICATION

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<th>Experience</th>
<th>Essential / Desirable</th>
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<tr>
<td>A proven track record in research with high quality journal publications and conference presentations</td>
<td>Essential</td>
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<tr>
<td>An extensive track record of teaching and learning in HE at undergraduate and postgraduate level or in a demonstrably similar context</td>
<td>Essential</td>
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<td>Experience of using different delivery techniques to enthuse and engage students</td>
<td>Essential</td>
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<tr>
<td>Evidence of successful module planning, design and delivery across a range of modules, with exemplification of teaching materials</td>
<td>Essential</td>
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<tr>
<td>Experience of practical work in:</td>
<td>Essential</td>
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<td>(a) the application of motors, drives or power systems to one of the main research areas of the Department</td>
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<tr>
<td>or</td>
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<tr>
<td>(b) the application of signal processing to one of the main research areas of the Department</td>
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## Personal attributes

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<th>Leadership skills</th>
<th>Essential</th>
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<td>Demonstrate attention to detail and commitment to high quality work</td>
<td>Essential</td>
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<td>Display creativity, initiative and judgement in applying appropriate approaches to teaching, learning support and scholarly activities</td>
<td>Essential</td>
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<td>Positive attitude to colleagues and students</td>
<td>Essential</td>
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<td>Willingness to work proactively with colleagues in other work areas/institutions</td>
<td>Essential</td>
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<td>Ability to plan and prioritise own work in order to meet deadlines</td>
<td>Essential</td>
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<td>Commitment to personal development and updating of knowledge and skills</td>
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<td>Collaborative ethos</td>
<td>Essential</td>
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<td>Show commitment to the Department/University outside of their chosen field, for example undertaking management and administration duties</td>
<td>Desirable</td>
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THE DEPARTMENT

The Department of Electronic Engineering at York undertakes world-leading research with groups working in multidisciplinary areas including: electronic and computer engineering, specifically, bio-inspired adaptive architectures and systems; applied electromagnetics; immersive and interactive technologies, specifically, audio & music technologies; communications for challenging environments; nano-scale device fabrication and analysis; autonomous & robotic systems and electronics for healthcare: https://www.york.ac.uk/electronic-engineering/

Our key research areas fit into three overarching groups:

Communication Technologies
Intelligent Systems and Nanoscience
Engineering Education and Management

In the 2014 REF 87% of our research outputs were judged world-leading or internationally excellent. Our research groups work with industry and universities across the world while providing a friendly and supportive environment for staff and students.

Our Department has a long-standing reputation for high-quality teaching and learning and highly employable graduates. Our MEng and BEng undergraduate programmes in a number of subject areas are fully accredited by the IET (Institution of Engineering and Technology) at CEng (Chartered Engineer) level: http://www.york.ac.uk/electronics/undergraduate/. The Department is consistently highly ranked for Electronic Engineering in the annual National Student Survey and was ranked 1st in the UK for graduate employment within one year of leaving the university (Longitudinal Education Outcomes (LEO) 2017).

Within Electronic Engineering our student body consists of approximately 400 undergraduate students and 120 taught postgraduate students. Our taught postgraduate students undertake one of our suite of MSc programmes, covering the latest technologies and skills in important industry sectors. We have a vibrant community of postgraduate research students enrolled on our PhD programme bringing our total student cohort to around 600 students.

The Department has 40 academic staff (including part-time and job share), research staff and a team of support staff, providing excellent administrative and technical assistance. It continues to hold the Bronze Award from Athena SWAN for promoting women in science, which was awarded in 2013. The Athena SWAN Charter recognises and celebrates good employment practice for women working in science, engineering and technology (SET) in higher education and research.
THE DEPARTMENT

The Department of Electronic Engineering operates a family friendly policy and is committed to gender equality and diversity. The Department recognises that a flexible approach to working is vitally important in the recruitment and retention of staff who have family commitments. The Department offers flexible working hours to all staff and will actively support job sharing and career break requests where it is reasonable and practical to do so and where operational needs will not be adversely affected.

The Department provides support for all categories of staff in their applications for promotion, role reviews, awards and prizes and rewarding excellence nominations. It strives to address gender inequalities and ensure that there is a culture that supports equality and encourages better representation throughout the Department. Support for women at all stages of their career is recognised as being extremely important.

Further details regarding the Department can be found on its website: https://www.york.ac.uk/electronic-engineering/
Founded on principles of excellence, equality and opportunity for all, the University of York opened in 1963 with just 230 students. In 2019 it is the home of more than 18,000 students across more than 30 academic departments and research centres. Since opening over fifty years ago, we have become one of the world's leading universities and a member of the prestigious Russell Group.

We are consistently recognised as one of the leading Higher Education Institutes and one of just six post-war universities to have appeared in the world top 100. We were rated 22nd in the 2019 Times & Sunday Times league table. The University of York has won six Times Higher Education (THE) Awards and five Queen’s Anniversary Prizes.

The University is proud of its association with Athena SWAN, holding multiple awards in support of gender equality, representation and success for all, with gold awards for Chemistry and Biology and a University-wide bronze award.

Of 154 universities that took part in the Research Excellence Framework (REF) in 2014, The University of York ranked 14th overall and 10th for the impact of our research. The University is consistently in the top ten UK research universities and attracts over £60m a year of funding from research alone.

Our vision is to make the University of York a world leader in the creation of knowledge through fundamental and applied research, the sharing of knowledge by teaching students from varied backgrounds and the application of knowledge for the health, prosperity and well-being of people and society.
Attractive workplace

Centred around the picturesque village of Heslington on the edge of the city of York, our colleges are set in an attractive landscaped campus. York enjoys a safe, friendly atmosphere with facilities including bars, shops, theatres and concert halls all within easy walking distance.

The University has undergone an unprecedented period of expansion and renewal since 2000. We have invested in twenty new buildings on the original campus and have completed the first and second phases of a £750m campus expansion. Our investment in new colleges, teaching and learning spaces, laboratories, research facilities and a new sports village mean there has never been a better time to join us.

During this period of change we’ve worked hard to retain our friendly, informal and collegiate atmosphere, which is important to our core values of inclusivity and interdisciplinarity.

We have a thriving international community and are committed to providing staff moving to York with as much support as possible through our Relocation Package and Welcome Officers.

The University is committed to promoting a diverse and inclusive community - a place where we can all be ourselves and succeed on merit. We offer a range of family friendly, inclusive employment policies, flexible working arrangements, staff engagement forums, campus facilities and services to support staff from different backgrounds.

For further information please visit our employee benefit pages.
THE CITY AND THE REGION

The City of York

Internationally acclaimed for its rich heritage and historic architecture, York’s bustling streets are filled with visitors from all over the world. Within its medieval walls you will find the iconic gothic Minster, Clifford’s Tower and the Shambles - just a few of the many attractions.

But York isn’t just a great place to visit - it’s also a great place to live and work. While nourishing a vibrant cosmopolitan atmosphere, York still maintains the friendly sense of community unique to a small city.

Visit www.visityork.org for more information on the city of York.

Shopping, culture and entertainment

York boasts specialist and unique boutiques but also all the high street stores on its busy shopping streets. Alongside them you will find cinemas, theatres, an opera house, art galleries, a vast range of restaurants, live music venues and clubs. York is particularly renowned for its multitude of pubs and bars, from the modern to the medieval.

Housing and schools

Whether you choose to live close to the city, in one of the surrounding villages or further afield, you will find a wide range of housing within comfortable distance of York and the University. For families, the area has a range of excellent schools both in the state and independent sector.

Great location

York is one of Britain’s best-connected cities. Halfway between London and Edinburgh on the East Coast mainline, on intercity trains you can reach London King’s Cross in less than two hours and Edinburgh in two and a half hours. York is also well served by road links, and it is easily accessible from the A1, M1 and the M62.

For those travelling from overseas, Manchester Airport is two hours away and Heathrow Airport just three and a half. Flights from nearby Leeds Bradford Airport provide easy access to mainland Europe. By Eurostar from London St Pancras, Paris is just over six hours away.

Yorkshire

The Lonely Planet guide recently declared Yorkshire the third best region in the world to visit. There is something to cater to every taste, whether it be the rugged landscapes of the Moors or the Dales, the picturesque seaside towns of Scarborough and Robin Hoods Bay, the gothic architecture of Whitby or the vibrancy of cosmopolitan Leeds.
Apply online

- Go to https://jobs.york.ac.uk
- Find this job using reference 7408
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 31 March 2019

What will I need?

You will need to upload:
- your CV
- a letter describing how you meet the requirements of the job

You will also need details of 3 referees.

Help and assistance

Direct any queries to Head of Department, Professor Andy Tyrrell, andy.tyrrell@york.ac.uk, or to Dr Jude Brereton, jude.brereton@york.ac.uk for a more informal chat about working in the department.

If you have any questions about your application, contact the HR Services team:

- recruitment@york.ac.uk
- +44 (0)1904 324835