Lecturers in Clinical/Biomedical Engineering

Department: Electronic Engineering
Hours of work: 37 / week (1.0 FTE)
Contract type: Open
Salary: Grade 7 (£40,927 - £50,296 per year)
Introduction

In line with the Department of Electronic Engineering’s long-term plans for expansion, we are seeking to appoint outstanding academics with research interests in the areas of Clinical and/or Biomedical Engineering. We particularly welcome applications from candidates with expertise in one of the following areas:

Clinical Engineering - The advancement of innovative medical technologies and their delivery to clinical practice, including: medical imaging, patient diagnosis and monitoring, rehabilitation, digital health and wearables, the design and implementation of clinical studies, including regulatory compliance and quality assurance.

Biomedical Engineering - The application of engineering principles and design concepts to medicine and biology for healthcare purposes, including biomaterials, bioinstrumentation and bionics, biomechanics and biofluidics, biomedical imaging, and cellular, tissue, and molecular engineering.

It is expected that post holders will have evidence of developing an international research record in their area of expertise that will make a significant contribution to the Department’s plans to expand research and develop impact in these areas. Candidates should possess a clear research vision. Experience of engaging with external stakeholder groups, including industry and managing technology translation would also be valued.

Following recent, significant investments in Engineering at the University of York, this is an exciting time to join the Department and an opportunity to influence our research.

Main purpose of the role

- To develop research objectives, projects and proposals and carry out individual and collaborative research projects
- To lead on and/or contribute to the production of research outputs and research outcomes.
- To design, develop and deliver teaching across a wide range of modules within the areas of Clinical and/or Biomedical Engineering.
- To supervise PhD students
- 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 develop and promote the research activities of the Department by developing a personal research plan independently and/or in collaboration with others as part of a larger research team
- To plan, manage and undertake research activities in accordance with a specific project plan, and to manage and guide the work of staff and research students on own specialist area
- To develop innovative research proposals, identify and obtain external sources of funding
- To publish original research in appropriate journals or other relevant media as appropriate and attend international conferences for the purpose of disseminating research results or for personal development
- Identify and engage with appropriate stakeholders in order to establish long-term impact of your personal research
Teaching and Promotion of Learning

- To develop innovative teaching materials, techniques and module design and take responsibility for the quality of the provision
- To plan, deliver and critically review a range of teaching and assessment activities
- To undertake academic supervision of students (including research students) and act as a research supervisor within own specialist subject area.
- To set and mark practical sessions, supervisions, fieldwork and examinations as appropriate, and provide constructive feedback to students
- To identify areas where current teaching provision is in need of revision or improvement and propose and implement improvements

Management and Administration

- To undertake the duties of a Programme Director and Module Co-ordinator and be responsible for the design, development and management of departmental teaching modules
- To contribute to the recruitment and selection of research and teaching staff
- To contribute to the administration and management of the department
- To advise, supervise and give guidance to other departmental staff as appropriate
- To develop and build internal and external contacts
Person specification

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<th>Qualifications</th>
<th>Essential / Desirable</th>
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<tr>
<td>PhD in Electronic Engineering, Physics, or cognate discipline with Clinical and/or Biomedical Engineering relevance, or other, equivalent experience</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>Essential</td>
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<tr>
<td>Membership of professional body (e.g. IET, IEEE, InstMC, CEng)</td>
<td>Desirable</td>
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<tr>
<td>Undergraduate degree in engineering (including electronic, electrical, physics) or computer science, or equivalent experience</td>
<td>Desirable</td>
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**Knowledge**

- Specialist knowledge in the principles, design concepts and implementation of Clinical and/or Biomedical Engineering technologies with a focus towards real-world deployment.
- We particularly welcome applications from candidates with knowledge in one of the following areas:
  - **Clinical Engineering** - The advancement of innovative medical technologies and their delivery to clinical practice, including: medical imaging, patient diagnosis and monitoring, rehabilitation, digital health and wearables, the design and implementation of clinical studies, including regulatory compliance and quality assurance.
  - **Biomedical Engineering** - The application of engineering principles and design concepts to medicine and biology for healthcare purposes, including biomaterials, bioinstrumentation and bionics, biomechanics and biofluidics, biomedical imaging, and cellular, tissue, and molecular engineering.
- Knowledge of a range of research techniques and methodologies | Essential |
- Knowledge of a range of teaching techniques to enthuse and engage undergraduate and postgraduate students | Essential |
- Expertise in an area that will complement and enhance the department’s research strategy and goals | Essential |

**Skills, abilities and competencies**

- Ability to develop research objectives and projects and to develop research proposals appropriate for external funding | Essential |
- Well-developed analytical skills | Essential |
Highly developed oral and written communication skills, including ability to write and/or contribute to publications and/or to disseminate research findings using other appropriate media | Essential

Ability to deliver presentations at conferences or exhibit work at other appropriate events internally and externally | Essential

Ability to extend, transform, and apply knowledge from scholarship | Essential

Ability to design teaching material and deliver either across a range of modules or within a subject area | Essential

Ability to supervise the work of others, for example in research teams or projects or as an MSc, PhD or postdoctoral supervisor | Essential

**Experience**

Proven ability to contribute to high quality research which is publicly evidenced | Essential

Experience of developing research projects and associated proposals for external funding | Desirable

Experience of taking responsibility for teaching and learning at undergraduate and ideally postgraduate level | Desirable

Evidence of successful course planning, design and delivery across a range of modules, with exemplification of teaching materials | Desirable

Evidence of dissemination of research findings which may include: the presentation of papers at conferences and workshops; participation in public engagement events to disseminate research; the publishing of chapters in text books; the publishing of papers; articles or reviews in academic journals or elsewhere; the construction of websites | Essential

Experience of practical and/or theoretical work in Clinical/Biomedical engineering | Essential

Experience of engaging with relevant stakeholder groups | Desirable

**Personal attributes**

Show attention to detail and commitment to high quality | Essential

Display creativity, initiative and judgement in applying appropriate approaches to teaching, learning support and scholarly activities | Essential

Positive attitude to colleagues and students | Essential

Willingness to work proactively with colleagues in other work areas, disciplines and institutions | Essential

Ability to plan and prioritise own work in order to meet deadlines | Essential

Commitment to personal development and updating of knowledge and skills | Essential
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<th>Collaborative ethos</th>
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<td>Show commitment to the Department and University outside of their chosen field, for example undertaking management and administration duties</td>
<td>Essential</td>
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