Senior Lecturer in Cyber Security and Privacy

Department: Computer Science
Hours of work: Full time/37 hours per week
Contract type: Open
Salary: £51,799-£60,022 a year / Grade 8
Introduction

As the Computer Science Department at the University of York enters its 50th year, we are looking to make a series of strategic academic appointments to promote its existing strengths and to develop new initiatives. The department’s vision is to be internationally leading in education and research on the engineering of safe, ethical and secure computational systems. With this appointment, we are seeking to appoint an excellent researcher and teacher to join our Cyber Security group and with particular expertise in one or more of the areas of cryptography, network security, software and system security, distributed systems security, hardware security, privacy-enhancing technologies, formal methods for security and privacy, malware and forensics, and human factors in cyber security and privacy. We are particularly keen that the successful candidate shows clear potential for rapid promotion to Reader/Professor on the basis of their research track record.

Appointees would not only be able join our existing research groups but also be willing to take a leading role in the York Interdisciplinary Centre for Cyber Security as well as look for collaborations and joint projects with the other the research centres that are strongly involved with the department such as the Institute for Safe Autonomy, YorRobots, the York Cross-Disciplinary Centre for Systems Analysis, and the Assuring Autonomy International Programme.

We strongly maintain the principle of research-driven teaching, from the earliest undergraduate modules to the most advanced Masters provision, which allows for a continual re-examination of our module content and programme structure. As a Senior Lecturer you will build up teaching responsibility progressively across undergraduate and postgraduate programmes, for both core Computer Science topics and your own academic specialisms. All students undertake a major project, proposed and supervised by an academic, normally on a one-to-one basis. As a Senior Lecturer you will be encouraged to show leadership in developing a programme of research and supporting colleagues to engage with that programme as well as developing their own research activities. The appointees will be responsible to the Head of Department, but will also join our research group in Cyber Security for more day to day line management and peer support.

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/or contribute to the production of research outputs and research outcomes
- 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 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
- 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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<th><strong>Qualifications</strong></th>
<th>Essential / Desirable</th>
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<tr>
<td>PhD in Cyber Security and Privacy or equivalent experience</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>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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<th><strong>Knowledge</strong></th>
<th>Essential / Desirable</th>
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<td>Knowledge in Cyber Security and Privacy and Computer Science more broadly to design &amp; develop teaching programmes and the provision of learning support</td>
<td>Essential</td>
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<td>Well-established national reputation in Cyber Security and Privacy</td>
<td>Essential</td>
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<td>Specific knowledge of Cyber Security and Privacy that would enable supervision of undergraduate and postgraduate students and research staff</td>
<td>Essential</td>
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<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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<th><strong>Skills, abilities and competencies</strong></th>
<th>Essential / Desirable</th>
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<td>Ability to provide academic leadership in research area and to lead a research team where appropriate</td>
<td>Essential</td>
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<td>Ability to design, deliver, and assess topics from our core undergraduate curriculum, which includes Mathematics for Computer Science, Theory of Computation, Artificial Intelligence, Programming in different paradigms, Algorithms, Human-Computer Interaction, Data Science, Systems and Devices.</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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Excellent written communications skills, to write or contribute to publications or disseminates research findings using other appropriate media | Essential

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

Ability to design teaching material, deliver and assess specialist MSc and undergraduate modules in Cyber Security and Privacy topics such as cryptography, network security, privacy-enhancing technologies and human factors. | Essential

**Experience**

A proven track record in research with high quality journal publications and conference presentations | Essential

An extensive track record of teaching and learning in HE at undergraduate and postgraduate level or in a demonstrably similar context | Essential

Experience of using different delivery techniques to enthuse and engage students | Essential

Evidence of successful planning and course design | Essential

**Personal attributes**

Leadership skills | Essential

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/institutions | Essential

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

Show commitment to the department/university outside of their chosen field, for example undertaking management and administration duties | Essential

Commitment to personal development and updating of knowledge and skills | Essential

Collaborative ethos | Essential