Lecturer in Cybersecurity
Department of Computer Science

Closing date: 27 March 2019
Interview date: 11/12 April 2019
Vacancy reference: 7414
INTRODUCTION

The Department of Computer Science at the University of York aims to appoint a Lecturer in Cybersecurity to build on and complement its acknowledged research and teaching expertise in this growing area. The successful candidate will develop a research programme in cybersecurity and contribute to the teaching on our established MSc Cybersecurity (which has GCHQ certification) and our undergraduate teaching programmes. The successful candidate will be expected to have a sound background in one or more of the following practical security areas: networks (e.g., network security testing, secure protocols, protocol attacks), malware (e.g., intrusion detection, system penetration) or digital forensics (e.g., the forensic lifecycle, forensic evidence).
Main purpose of the role

- To develop research objectives, projects and proposals and carry out individual or collaborative research projects.
- To lead on and/or contribute to the production of high quality research outputs and research outcomes.
- To design, develop and deliver teaching across a range of cybersecurity modules.
- 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 (in cybersecurity) independently and/or in collaboration with others as part of a larger research team.
- To plan, manage and undertake research activities, and to manage and guide the work of staff and research students in your own specialist area.
- To develop innovative research proposals and to obtain external funding for them.
- To publish high quality original research in appropriate journals or other relevant media and attend international conferences

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 teaching and assessment activities.
- To undertake academic supervision of taught students and act as a research supervisor within your own specialist subject area.
- To develop taught project proposals, supervise and mark them (particularly cybersecurity projects at MSc level).
- To set and mark practical sessions and examinations and provide constructive feedback to students.
- To identify areas for revision or improvement of current teaching provision, and to propose and implement improvements.

Some involvement in undergraduate teaching will be possible (and may be useful to broaden the experience of the successful candidate) but in the initial years of appointment the successful candidate’s teaching will concentrate on the MSc Cybersecurity.

Management and Administration

- To undertake the duties of Module Co-ordinator for one or more taught modules and be responsible for the design, development and management of them.
- 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 build internal and external contacts.

Condition of appointment

This role is exempt from the Rehabilitation of Offenders Act. Consequently, all applicants will be asked to declare both unspent and spent convictions on their application form.

Appointment of the successful candidate will be conditional on a Disclosure and Barring Service check.
## PERSON SPECIFICATION

<table>
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<tr>
<th>Essential / Desirable</th>
<th>Qualifications</th>
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<tr>
<td>Essential</td>
<td>PhD in Computer Science, Cybersecurity</td>
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<td>Essential</td>
<td>Appropriate academic professional and teaching qualifications or a willingness to complete the Postgraduate Certificate in Academic Practice</td>
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<tr>
<td>Desirable</td>
<td>Knowledge of practical aspects of software engineering: software testing, modelling, distributed systems</td>
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### Knowledge

| Essential             | Specialist knowledge of practical aspects of cybersecurity, e.g. knowledge of networks, or malware, or digital forensics. |
| Essential             | Knowledge of practical aspects of software engineering: software testing, modelling, distributed systems               |
| Essential             | Knowledge of a range of research techniques and methodologies                                                        |
| Essential             | Knowledge of a range of teaching techniques to enthuse and engage students, leading to positive educational outcomes |
| Essential             | Knowledge of research impact and an enthusiasm for delivering research with social, economic or cultural impact       |
| Essential             | Research expertise and excellent publication record in cybersecurity: networks, malware, digital forensics, or software security. |

### Skills, abilities and competencies

| Essential             | Ability to develop research objectives, projects and proposals.                                                       |
| Essential             | Well-developed analytical skills applied to security problems.                                                        |
| 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             | Ability to contribute to writing research proposals.                                                                 |
# PERSON SPECIFICATION

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<th>Experience</th>
<th>Essential / Desirable</th>
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<tr>
<td>Proven ability to carry out high quality research which is publicly evidenced with publications, grants, etc</td>
<td>Essential</td>
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<td>Experience of taking responsibility for teaching and learning, ideally at a postgraduate level</td>
<td>Essential</td>
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<td>Evidence of successful planning, design and delivery of teaching, with exemplification of teaching materials</td>
<td>Essential</td>
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<td>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; and articles in leading academic journals.</td>
<td>Essential</td>
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<th>Personal attributes</th>
<th>Essential / Desirable</th>
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<tr>
<td>Show attention to detail and commitment to high quality.</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>
<td>Essential</td>
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<td>Collaborative ethos.</td>
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<td>Willingness to engaging in the affairs of the department/university outside of their chosen field, for example undertaking management and administration duties.</td>
<td>Essential</td>
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The Department of Computer Science has a very strong international research record. The Research Excellence Framework (REF) 2014 results ranked York's Computer Science 7th overall in the UK, 5th for impact and 6th for environment. 90% of our REF submission was rated as "world leading" or "internationally excellent". This result confirms the longstanding global reach and real-world significance of our research and makes us one of the best departments in the country for nurturing excellent research and achieving economic, social and cultural impact from research. The Department has strong and long-standing links with industry and is highly regarded for its Continuing Professional Development (CPD) courses.

The Department currently comprises four major research themes: Critical Systems; People, Health and Well-being; Analytics; and Beyond Human Vision, and five interdisciplinary research centres: the Digital Creativity Labs, the York Centre for Complex Systems Analysis, the Quantum Communications Hub, the Assured Autonomy International Programme for the safety of autonomous systems, and the York Interdisciplinary Centre for Cyber Security. Our research themes and research centres are supported by researchers specialising in Cyber-Security, Real-Time and Embedded Systems, Enterprise Systems, High Integrity Systems, Computer Vision and Pattern Recognition, Human Computer Interaction, Artificial Intelligence, High Performance Computing and Computer Architecture. More details are available here: https://www.cs.york.ac.uk/research/about-research/

The post-holders will be expected to build their research profile by publishing research papers, supervising PhD students and generating research income. This development will be aided by a member of the group, or other senior member of staff, acting as a mentor in all aspects of research development including supervising PhD students, developing research project proposals, and acquiring internal and external funding. Staff will also be associated with themes or centres, as appropriate.

The initial teaching duties will vary with the post-holders' experience, but is likely to include teaching at undergraduate and postgraduate levels, pastoral supervision of students, and supervision of project students. Lecturing is likely to be as part of a small team, and a teaching mentor will be assigned to each post-holder to aid their integration and development. In addition, the post-holders will take part in the York Postgraduate Certificate in Academic Practice programme, unless they have an equivalent qualification.
The Department is housed in purpose-built accommodation within the Heslington Campus East. The Department has over 60 members of academic and teaching staff and 28 research associates and fellows employed on research grants and contracts. Seven specialist teaching staff deliver modules to industry as part of our highly regarded CPD programme in safety critical systems.

We have a vibrant graduate school of approximately 160 research students, and around 550 undergraduate and 220 full-time and part-time taught postgraduate students. The professional support team comprises 24 administrative staff and 12 technical and computing staff.
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.
THE UNIVERSITY

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 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](http://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 7414
- Complete the online application form

You will need to submit your completed application by midnight (local UK time) on 27 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 4 referees.

Help and assistance

Direct any informal queries to cs-lectureships@york.ac.uk

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

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