



Candidate Information

Position:	Lecturer/Senior Lecturer in Secure Cyber Physical Systems
School/Department:	School of Electronics, Electrical Engineering and Computer Science
Reference:	24/112065
Closing Date:	Friday 23 August 2024
Salary:	£43,605- £71,945 per annum
Anticipated Interview Date:	Week commencing 7 October 2024
Duration:	Permanent

JOB PURPOSE:

This role requires someone with a PhD in Computer Science, Electronic Engineering, Electrical Engineering, or a closely related discipline to undertake research in Secure Cyber-Physical Systems; develop and contribute to our ambitious research agenda; and lead University-wide efforts to sustain Queen's as an international leader in Cyber Security research and the application of this research to address global challenges. The post holder is expected to undertake world class innovation and mission-led research programmes complementing their research, along with contributing to excellent student experience via research led teaching and assessment. The post holder will also contribute to administration and outreach activities, specifically capitalising on the major opportunities available in this area by the recently announced UK Industrial Strategy, UKRI, many European and Global initiatives and ongoing investment in the area via Belfast Regional City Deal (BRCD).

MAJOR DUTIES:

Teaching:

1. To contribute to the design delivery and improvement of Cyber Security content in the Computer Science and Computer Engineering undergraduate curricula, and postgraduate Cyber Security programmes.
2. To contribute to the School's efforts to develop new teaching delivery methods, including but not limited to new blended learning and research-led teaching methods.
3. To undertake initiatives to improve the overall student experience, by new methods of assessment, feedback, and student engagement.
4. To supervise undergraduate and postgraduate taught students in practical and project-based work as appropriate to the relevant courses of study.
5. To contribute to student recruitment and student support mechanism.

Research:

1. To lead and undertake a research programme in Secure Cyber-Physical Systems, and contribute to secure substantial external funding and develop large, income-generating collaborative and interdisciplinary research activities.
2. To publish in peer-reviewed national or international journals and conferences in the fields of Cyber Security and Cyber-Physical Systems.
3. To engage in knowledge transfer and innovation activity and to deliver research impact.
4. Where appropriate to engage with regional and national Government initiatives in the space of Cyber Security, notably the UK national cyber strategy and UKRI initiatives.
5. To contribute to the strategic growth and mission of school and research institutes.
6. To engage, mentor and develop postgraduate or post-doctoral researchers.

Administration/Contribution to the Community:

1. To contribute to the outreach and internationalisation of the School of Electronics, Electrical Engineering and Computer Science (EEECS) at Queen's University Belfast by developing external links.
2. To carry out designated administrative duties including, for example, committee work, working group leadership or course administration.
3. To participate in and support of the Personal Development Review (PDR) process.

ESSENTIAL CRITERIA:

1. A PhD in Computer Science, Electronic Engineering, Electrical Engineering (or similar discipline).
2. Postdoctoral research experience in a relevant area, including but not limited to: applying AI to secure interconnected Cyber-Physical Systems (CPS), Critical National Infrastructure (CNI), supply chains, or space systems; applying predictive modelling or digital twins for resilient control of CPS or safety-critical systems.
3. High-quality publication of excellent research outputs in cyber security commensurate with stage of career.
4. Independent contribution in research projects and outputs and potential to establish an independent sustainable research program.
5. Contribution to national and international collaborations.
6. At Senior Lecturer level evidence of: Contribution of research income generation.
7. At Senior Lecturer level evidence of: Successful supervision/mentoring of PhD students and/or Research staff.
8. Evidence of teaching experience include but not limited to undergraduate and postgraduate level teaching, assessment and/or industrial training activities.
9. At Senior Lecturer level evidence of: Acting in a leadership role regarding teaching activities (for example, acting as a module coordinator/lead).
10. Ability to contribute to School or University administrative tasks and to engage in activities that are of service to the wider discipline.
11. Ability to contribute to community/outreach, public engagement, or impact-related activities.
12. At Senior Lecturer level evidence of: Successful contribution to administration and service to the discipline.
13. Ability to communicate effectively (in English) complex information to a variety of audiences.
14. A commitment to creating an inclusive and supportive academic environment enhancing equality, diversity, and supporting early career academics.
15. Ability to work in a team to deliver high quality teaching and research.

DESIRABLE CRITERIA:

1. Completed a Postgraduate Certificate in Higher Education Teaching (or equivalent) qualification.
2. Successful coordination of major research consortia based in the UK, EU, or internationally.
3. Successful enhancement or creation of undergraduate or postgraduate programmes in relevant area.
4. Experience of participation in Government / Industry advisory groups, funding panels.
5. Membership or Senior Membership of learned societies such as IEEE or IET.

ADDITIONAL INFORMATION:

Informal inquiries may be forwarded to: Dr Ciara Rafferty, at c.rafferty@qub.ac.uk