

Job Summary

Job Title: Senior Lecturer/Reader in Computing Systems

Overview

Northern Ireland needs to avail of the considerable potential offered by artificial intelligence and data science by exploiting state-of-the-art algorithms and technology developments. Queen's University Belfast and the School of Electronics, Electrical Engineering and Computer Science (EEECS) in particular, is at the very centre of developing an ecosystem around AI and computational challenges relevant to big data phenomena. The School provides a vibrant, stimulating, and collaborative environment with strong partnerships with global industry and world-class facilities for research excellence and new collaborations.

We are uniquely positioned within the Higher Education Sector with established facilities, including the creation of the new £58 million Global Innovation Institute (GII) which will host more than 550 researchers and become a nexus for multidisciplinary co-innovation between researchers and industry in our digital future. It builds upon the existing £37 million investment which houses the Centre for Secure Information Technologies, the Centre for Wireless Innovation and the Centre for Data Science and Scalable Computing.

The post will benefit investments in creating a new AI Collaboration Centre which provides a route for engagement with companies in collaborative research in exciting new emerging applications, the NI-HPC Centre which is a UK Tier-2 National High-Performance Computing facility focused on accelerating AI-based computing and potential and exposure to advanced research offered by the University's Turing Development Award.

The unprecedented development and growth of the School make it a particularly exciting time to join us, and explore the emerging opportunities alongside truly excellent academics, shaping a better world together.

ABOUT THE ROLE:

A computer scientist in Computing Systems to undertake advanced research, develop and contribute to our ambitious research agenda and lead University-wide efforts to establish Queen's as an international leader in Computing Systems research and the application of this research to address global challenges. The post holder is expected to undertake world class innovation, mission-led research programmes and complementing your research, along with contributing to excellent student experience via research led teaching and assessment. The post holder will also contribute to administration or 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 the ongoing investment in the GII and the ACII.

Research

- To lead and undertake research programme in Computing Systems, and contribute to secure substantial external funding and develop large, income-generating collaborative and interdisciplinary research activities
- To publish in peer-reviewed national or international journals and conferences in the field of Computing Systems
- To engage in knowledge transfer and innovation activity and to deliver research impact

- To engage with regional and national Government initiatives in the space of Computing Systems, notably the UK industrial strategy and UKRI initiatives
- To contribute to the strategic growth and mission of ECIT and the School of EECS
- To attract and supervise postgraduate research students and post-doctoral research fellows

Education

- To contribute to the design delivery and improvement of Computing Systems content in the Computer Science curricula
- 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
- To undertake initiatives to improve the overall student experience, by new methods of assessment, feedback, and student engagement
- To supervise undergraduate and postgraduate taught students in practical and project-based work as appropriate to the relevant courses of study.
- To contribute to student recruitment and student support mechanism
- To manage major teaching administrative functions such as accreditation and quality enhancement.
- To deliver more challenging modules e.g., specialist MEng or MSc modules

Leadership and Citizenship

- To contribute to the School of EECS and ECIT's outreach and internationalisation strategies by developing external links
- To act as internal and external examiner for undergraduate and postgraduate students and programmes.
- To contribute to the senior management activities of the School by taking on appropriate roles such as Director of Education, Module/Year/Programme Co-ordinator, or other recognised official University roles.
- To act as mentor or appraiser to colleagues advising on their personal development and ensuring that they are meeting the standards required.
- To contribute to relevant professional bodies; engage in consultancy for industry and community organisations.

Person Specification:

The appointed person will have an outstanding track record in Computing Systems and the drive and ability to make more possible. Their personal values and work ethic will reflect ours - integrity, collaboration, ambition, respect, and the pursuit of excellence. For us to be right for you, you will be someone who thrives in a team environment and has a passion for developing and mentoring the potential of others. We will share a common objective of pursuing research excellence and developing the skills for future generations as part of a local community aspiring to shape Computing Systems research development globally. Applications will be required to demonstrate the following:

Essential

Education and Qualifications

- A PhD in Computer Engineering/Computer Science (or similar discipline)

Experience

Research

- Research and Outputs in the field of Computing Systems commensurate to stage in career
- A sustained and record of publication of internationally excellent research outputs, with demonstrable impact on leading researchers and the research agenda in Computing Systems
- A strong track record of earning research income as Principal Investigator
- Evidence of contribution to national and international collaborations
- Evidence of successful, sustained PhD supervision as primary supervisor

Education

- Evidence of teaching experience include but not limited to undergraduate and postgraduate level teaching, assessment and/or industrial training activities

Leadership and Impact

- A strong track record of leadership, demonstrated as evidence of major initiatives that significantly improved education, research or administrative processes
- A record of collaboration with and links to industry, or other activities aiming at achieving broader societal and economic impact
- Proven ability to plan and deliver a programme of research and develop techniques, sources of funding and/or proven skills in coaching and developing others in best practice techniques
- Evidence of social engagement and outreach activities

Personal Qualities

- Ability to communicate effectively complex information to a variety of audiences
- A commitment to creating an inclusive and supportive academic environment enhancing equality, diversity, and supporting early career academics

Desirable

Education and Qualifications

- Completed PGCHET (or equivalent) with HEA membership

Experience

Research

- Research expertise in relevant areas depending on academic position, as follows: Edge Computing, Cyber-Physical Systems, and High Performance Computing
- Major research grants such as EPSRC Programme, Platform, CDT grants, ERC grants
- Successful coordination of major research consortia based in the UK, EU, or internationally
- Significant research measures of esteem in relevant areas depending on academic position.

Education

- Successful enhance or creation of undergraduate or postgraduate programmes in Computer Science, Computing Systems, or cross-cutting themes
- Strong Peer-reviews of teaching

- Teaching awards

Leadership and Impact

- Experience of participation in Government / Industry advisory groups, funding panels