Candidate Information

Position: Lecturer/Senior Lecturer in Connected and Cooperative Autonomous Systems
School/Department: School of Electronics, Electrical Engineering and Computer Science
Reference: 24/112063
Closing Date: Friday 23 August 2024
Salary: £43,605 - £71,945 per annum.
Anticipated Interview Date: Week commencing 7 October 2024

JOB PURPOSE:

This role requires expertise in two specific areas: 1) connectivity technologies (e.g., Future Networks, Mobile Edge Computing, V2X) and autonomy (i.e., perception and autonomous decision-making/mission and motion planning/control) to undertake advanced research in the field of connected and cooperative autonomous systems, with application in Future Mobility Technologies. The successful candidate is expected to develop and contribute to our ambitious research agenda and lead University-wide efforts to establish Queen's as an international leader in next-generation autonomous systems that are connected and collaborative with each other and humans to address global challenges in the application area of Future Transport Systems. The post holder is expected to undertake world-class innovation and mission-led research programmes, complementing their research, and contribute 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 UK's 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 Computer Science and Electrical Engineering curricula.
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 through 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 research programmes in connected and cooperative autonomous systems with applications in Future Mobility Technologies, and contribute to securing substantial external funding and develop significant, income-generating collaborative and interdisciplinary research activities.
2. To publish high-quality and impactful research outputs in top peer-reviewed national or international journals and conferences.
3. To engage in knowledge transfer and innovation activity and to achieve positive impacts from fundamental research on society.
4. Where appropriate to engage with regional and national Government initiatives in the space of Connected and Autonomous Systems, notably the UK industrial strategy and UKRI initiatives.
5. To contribute to the strategic growth and mission of the school and our research institutes.
6. To engage postgraduate research students as well as early-career postdoctoral 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 the Personal Development Review (PDR) process.

ESSENTIAL CRITERIA:

1. A PhD in Computer Science, Computer Engineering, Electronic Engineering (or similar discipline).
2. Postdoctoral relevant research, including cooperative perception (e.g., ML/AI-based perception systems for autonomous vehicles, motion planning for mobile autonomous systems) and decision-making for autonomous systems, connectivity and computing platforms (e.g., 5G/6G, V2X, Mobile Edge Computing, In-Vehicle Networking) for Cooperative Autonomous Systems.
3. Experience in the application area of Future Mobility Technologies.
4. High-quality publication of excellent research outputs commensurate with stage of career.
5. Significant experience in multi-disciplinary, multi-partner and international collaborative R&D with industry.
6. Leadership, e.g., work-package leadership in collaborative R&D projects.
7. At Senior Lecturer level evidence of: Contribution of research income generation.
8. At Senior Lecturer level evidence of: Successful supervision/mentoring of PhD students and/or Research staff.
9. Evidence of teaching experience includes but is not limited to, undergraduate and postgraduate level teaching, assessment, and/or industrial training activities.
10. At Senior Lecturer level evidence of: Acting in a leadership role regarding teaching activities (for example, acting as a module coordinator/lead).
11. Ability to contribute to School or University administrative tasks and engage in activities that serve the broader discipline.
12. Ability to contribute to community/outreach, public engagement, or impact-related activities.
13. At Senior Lecturer level evidence of: Successful contribution to administration and service to the discipline.
14. Ability to communicate complex information effectively (in English) to various audiences.
15. A commitment to creating an inclusive and supportive academic environment enhancing equality and diversity and supporting early career academics.
16. Ability to collaborate 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 Computer Science, Computing Systems, or cross-cutting themes.
4. Experience of participation in Government / Industry advisory groups, funding panels.

ADDITIONAL INFORMATION:

Informal enquiries can be directed to: Prof. J. McAllister - jp.mcallister@qub.ac.uk