UNIVERSITY OF LEICESTER

Job Summary

Job Title: Lecturer in Cyber Security for Distributed, Networked and Cyber-Physical AI Systems
Grade: 8
Salary: £46,970 to £57,666 per annum, pro-rata if part-time
Department: Computing and Mathematical Sciences
Hours/Contract: Full-time or job share, fixed term contract for less than 2 years
Job Family: Teaching and Research
Reference: 13675

Role Purpose

To contribute to high-level and innovative research in the "Distributed AI systems" in the School of Computing and Mathematical Sciences. To collaborate with a number of key interdisciplinary partners including the Institute for Precision Health in the College of Life Sciences, Space Park Leicester and the Institute for Space, and the Institute for Environmental Futures. To publish high-quality outputs, generate research income and/or real-world research impact, and supervise research postgraduate students.

To contribute to innovative and high-quality teaching in a range of core Computer Science subjects, through delivery of lectures, creation of teaching materials, and supervision of undergraduate and postgraduate students. Undertake such specific school's citizenship roles and management functions as may be required by the Head of School.

Main Duties and Responsibilities

Research

- Engage in personal and collaborative research in Computer Science, resulting in significant contributions to papers in leading international conferences and journals
- Generate external funding through grants, consultancy, knowledge-transfer activities, or other sources to support research and its transition into applications.
- To contribute to high-level and innovative research in the "Distributed AI Systems" group within the School of Computing and Mathematical Systems
- To collaborate with a number of key interdisciplinary partners including the Institute for Precision Health in the College of Life Sciences, Space Park Leicester and the Institute for Space, and the Institute for Environmental Futures.
- Build up and maintain relationships with external partners to support knowledge transfer and impact outside academia.
- Supervise research students and provide advice and guidance to other members of the wider team, both research staff and students.
- Attend major international and national conferences in your research area and present research results on a regular basis, and to network and contribute to personal recognition and that of the University.

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Teaching

- Give lectures, seminars, tutorials and other classes in a variety of Computer Science subjects as allocated by the Head of School based upon the School's teaching obligations.
- To co-operate with colleagues in the review and development of the curriculum and in the design and launch of new degrees or other academic awards where appropriate.
- Supervise project work by undergraduate and postgraduate students in Computer Science.
- Maintain a broad and up-to-date knowledge of research and scholarship in core areas of Computer Science to ensure that teaching meets the standards expected within a research-led University.
- Undertake other academic duties (such as setting and marking coursework and examination papers, invigilation, participation in course reviews and pastoral support of students) required to sustain the delivery of high-quality teaching.
- Support and comply with the University and School's teaching quality assurance standards and procedures, including the provision of such information as may be required by the School or the University.

Administration and Other Activities

- Undertake such specific school's roles and management functions as may be required by the Head of School.
- Attend School's meetings and participate in committees and working groups within the School, the College and the University to which appointed or elected.
- Engage in continuous professional development, for example through participation in relevant staff development programmes.
- Undertake, subject to the agreement of the Head of School and the University as appropriate, external commitments that reflect well upon and enhance the reputation of the University.
- Ensure compliance with health and safety requirements in all aspects of work.
- Take responsibility for organising resources and effective decision making in support of research and teaching.

Internal and External Relationships

Collaborate with colleagues in the School and the University at large with interests in Trustworthy Autonomous Systems or AI and Applications. Support research students and other staff members to provide advice and guidance in area of expertise. Build and maintain contacts with healthcare providers, industry or other external partners and work with them on joint projects.

Planning and Organising

Plan and deliver a course of lectures to undergraduate, masters, or PhD students. Plan research grant applications, publication of high-quality papers, industry engagements and impact-bearing collaborations.

Qualifications, Knowledge and Experience

Essential

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- A PhD or equivalent in computer science or a cognate discipline*.
- Expertise in Cyber Security for Distributed, Networked and Cyber-Physical AI Systems, including: Cyber Security for distributed systems, networks, cyber-physical systems, autonomous systems and AI-enabled infrastructure.
- Evidence of research leading internationally in terms of originality, significance and rigour, that are consistent with the School that is aspiring to achieve the highest standards of excellence as evidenced by*
- Track record of publication of high quality research papers *
- Evidence of potential to engage in high-quality and impactful collaborative research, knowledge-transfer activities or consultancy with industry*
- Evidence of potential to engage in interdisciplinary research with other departments/schools and colleges*
- Experience or knowledge of higher education and ability to use a range of delivery techniques to
- inspire and engage students*
- Demonstrated ability or potential to generate external funding (through research grants, contracts and other sources) to support research programmes*
- Academic Teaching Qualification or commitment to gain the appropriate category of HEA Fellowship.
- **Desirable**
- Evidence of collaborative research with leading research groups or companies in the UK or abroad.
- Experience in organising seminars, workshops, conferences or other research meetings.
- Experience in supervision of undergraduate or postgraduate students.

Criteria to be used in shortlisting candidates for interview

Skills, Abilities and Competencies

Essential

- High level of proficiency in English, sufficient to undertake research, teaching and administrative activities utilising English Language materials and to communicate effectively with staff and students.
- Proven ability or potential to generate external funding through research grants, consultancy, knowledge-transfer activities, or other sources to support research and its transition into applications.
- Proven ability or potential to initiate work independently and as part of a team, both on research and teaching programmes.
- Proven ability or potential to teach undergraduate and postgraduate students in lectures, tutorials and seminars, and to supervise postgraduate students.
- Ability or potential to help develop curricula.

- Ability or potential to engage in outreach activities.
- Good written* and oral communication skills, along with presentation and training skills.
- Good interpersonal and personal skills and traits including:
- Time management and prioritization
- Commitment to accountability, integrity, and trustworthiness
- Ability to work in teams and to be able to balance organization and personal goals
- Solution-focussed and problem-solving mentality
- Ability to teach and supervise undergraduate and postgraduate students in applied areas of computer science, including *:
  - Artificial Intelligence and Machine Learning
  - Agentic Software Engineering
    Cloud and Distributed computing
  - Cyber Security
  - Software System Assurance

Desirable

- Ability to collaborate with existing staff in the School of Computing and Mathematics

Criteria to be used in shortlisting candidates for interview

Supporting University Activities

As a University of Leicester citizen, you are expected to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We expect all staff as citizens to work flexibly across the University if required.

University Values

Inclusive - We are diverse in our makeup and united in ambition. Our diversity is our strength and makes our community stronger.

Inspiring - We are passionate about inspiring individuals to succeed and realise their ambitions. We challenge our community to think differently, to get involved, and to constantly embrace new ideas.

Impactful - As Citizens of Change we will generate new ideas which deliver impact and empower our community

Equity and Diversity

We believe that equity, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognizes and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equity, diversity and inclusion.

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