UNIVERSITY OF LINCOLN
JOB DESCRIPTION

JOB TITLE	Associate Professor in Robotics and Autonomous Systems
ACADEMIC PROFILE	Teaching and Research
DEPARTMENT	School of Computer Science
LOCATION	Brayford Campus
JOB NUMBER COS009	**GRADE** 9 **DATE** July 2021
REPORTS TO	Head of Department

CONTEXT

The University of Lincoln is an ambitious Higher Education institution located in one of the finest historic cities in the UK. It is amongst the UK's top 20 in The Guardian University Guide 2020. The University was awarded Gold – the highest standard possible – in the 2017 Teaching Excellence Framework; a nationwide assessment of teaching quality across UK higher education institutions. It is also committed to growing student numbers, using new partnerships with external organizations and innovative forms of programme delivery. The School of Computer Science has played a key part in achieving this success, pursuing a blend of fundamental, applied and interdisciplinary research, with current focus areas in Computer Vision, Machine Learning, Robotics and Autonomous Systems, and Human-Computer Interaction.

The School of Computer Science seeks to appoint an Associate Professor with an established and sustained profile, making extraordinary impact within Robotics and Autonomous Systems research areas. The post holder is expected to contribute to the School's teaching activities and to develop their research portfolio, to include: acquiring external funding; supervising postdoctoral researchers and PhD students; publishing in the highest quality journals and conferences; strengthening industry partnerships and contributing to real-world applications with positive impacts; and conducting, directing and leading research to fulfil the University's ambition and strategic objectives.

Associate Professors are involved in university service beyond your School and College. Associate Professors demonstrate continuing academic attainment and achievement, as well as providing academic leadership through active contribution to their discipline; maintaining, enhancing and improving the University's national and international reputation in their academic field.

The successful candidate will be part of the Lincoln Centre for Autonomous Systems (L-CAS), the College of Science's cross-disciplinary research centre in robotics. It has nationally and internationally recognised for its scientific contributions in the integration of perception, learning, decision-making, control and interaction capabilities into autonomous robotic systems, in application domains including agri-food, healthcare, intelligent transportation, logistics, nuclear robotics, space and service robotics. L-CAS is one of the most vibrant and fast-growing robotics groups in the UK, a member of the UKRAS network, and a valued partner many collaborative research projects with other academic and industry partners; funded by the UK Research Councils (EPSRC and BBSRC), InnovateUK and EU Research Framework Programmes, among others, with an annual research income of more than £3M sustained over recent years. It provides a highly dynamic, inter-disciplinary research environment, with a

broad range of collaboration opportunities and a large variety of robots (wheeled, humanoid, robotic arms, manipulators, swarms, etc) and support infrastructure readily available.

We specifically welcome applications to establish new areas of research that complement our existing specialisms, such as (but not limited to): robotic manipulation and grasping; mobile manipulation; fleet robotics; robot learning; soft robotics; haptics, etc. You will be part of the leadership of the centre, with independence and support to take your own team forward towards world-leading research contributions and new opportunities. You will be expected to take an active part in various activities within the School of Computer Science, such as contributing to teaching at undergraduate and postgraduate levels, including the MSc programme in Robotics and Autonomous Systems and Centre for Doctoral Training, and demonstrating a commitment to maintaining the University's high standards of teaching and learning and to research-led teaching.

The University is committed to building a culturally diverse institution, where all staff and students can flourish and feel valued for their contribution and individuality. We are encouraging talented people, whatever their background, to work and study here. All appointments are made on merit. We particularly welcome applications from suitably qualified female academics, as they are currently under-represented in positions within the School.

JOB PURPOSE

Associate Professors take on a major leadership role in relation to further knowledge and application of research and development of subject/course, pedagogical and all elements of excellence in student learning. In particular, to work with and lead colleagues in the Lincoln Centre for Autonomous Systems on fundamental, applied, and cross-disciplinary research in Robotics and Autonomous Systems, collaborating also with colleagues and other stakeholders, both internally at the University of Lincoln and externally in academia, industry and other institutions, as relevant to the role. To contribute to curriculum development, teaching and supervision on the MSc Robotics and Autonomous Systems and associated programmes within the School of Computer Science.

KEY RESPONSIBILITIES

Research

An Associate Professor (T&R) enhances and promotes the research culture in the subject area and contributes to the strategic development of research in their School or College, including by:

- Demonstrating a strong international profile within their discipline (e.g. producing international conference papers and invitations as keynote speakers)
- Conducting research of an international standard
- Publishing (or equivalent) research outputs of internationally excellent quality.
- Have sufficient outputs to be returned in the REF at a high standard inclusive of complex circumstances.
- Developing externally funded research projects and acting as PI on medium-sized research grants.
- Working (possibly with others) on the writing of bids to external funding sources.
- Contributing to research impact by participating in relevant research groups/committees, leading or contributing to impact case studies and engaging with activities that contribute towards the cultivation of an environment of impact
- Linking their research profile to education and the professional sector as appropriate
- Developing links with relevant local, national and international organisations with a view to enhancing research in cognate fields
- Contributing to research development events and coaching and mentoring colleagues in the development of their research profiles

Teaching and Learning Support

Undertaking teaching at undergraduate and/or postgraduate levels and carrying out all related activities, achieving good sustained levels of student progression and feedback. The range of teaching duties may change from time to time

Facilitate, develop, lead and support innovations in the teaching activities and curriculum development and delivery of the School and wider University

Support the design and development of new or existing programmes, advising on ways to enhance the quality of engagement and influence of discipline specific professionals and enrich the student experience with a focus on employability through practitioner or employer led engagement

Work with others to develop College policy that influences and promotes effective research in all aspects of the student learning experience

Develop, implement and manage a community of practice to support staff new to teaching within the school to engage in research

If appropriate, lead a subject area or range of programmes and resolve problems affecting the quality of course delivery and student progress within own areas of responsibility

Liaison and Networking

Work within an extended network or community suitable to their discipline, which can impact positively on the work of the University

Take a lead role in the application of these networks to enacting the University mission and strategy

Promote the reputation of the University within the wider higher education community through publications, contributions to conferences and liaison within the relevant subject centre

Liaise with and develop internal networks, for example by chairing and participating in institutional committees

Lead, develop and contribute to relevant external networks, professional, national or international bodies such as Higher Education Committees and high level advisory groups

Monitor external funding opportunities and assist the College and the University in securing external funding

Interact and collaborate with other internal Schools and Colleges and external institutions and bodies on the establishment of joint projects to enhance the quality of research, teaching and learning

Team Working

Work as a member of the School management team to contribute to the development and management of the School

Provide academic leadership within the School over a subject area, a range of courses or programmes and an area of research or significant academic endeavor.

Contribute significantly to the development and running of the School by taking on appropriate coordinating or leadership roles.

Supervise or line manage other staff as appropriate.

Act as mentor or appraiser to designated colleagues, advising on personal development and ensuring that they are meeting the standards required

Student Support

Act as academic tutor to students as allocated by the Head of School and act as first line contact for them for advice and support on academic matters, ensuring that students are directed to relevant support services when necessary.

Supporting students undertaking doctoral research in their subject and supervising them to completion.

Supervise student projects and placements as appropriate.

Leadership
Associate Professors are expected to lead by example in research and to support the research activities of individuals/research groups in the area in which they are appointed. Candidates will therefore have to evidence their leadership skills relevant to research, as well as their own personal high quality research record. This record should cover such aspects as their research outputs (including publications), research grants and research supervision. The post holder will be expected to maintain and develop their own research at a high level and to be a significant contributor to external research audits.

Citizenship
Contribute to the wider mission and reputation of the University with active involvement in activities contributing to general university life e.g. open days, student activities, alumni events, mentoring, personal tutoring and engagement with student support and delivery of outreach activities e.g. school visits, local community activities Active participation in committees/groups contributing to university life e.g. health and safety, equality diversity and inclusivity, sustainability and working groups Engage in appropriate training programmes in the University, actively follow and promote University policies and participation in the staff appraisal scheme and yearly Individual Research Plan (IRP) Contribution to the future development of the University and support the University's wider social, cultural and economic development of our region, our 'civic' mission with engagement and/or leadership of external partnerships contributing to the civic mission of the University. Participation in external activities such as volunteering, school governor, cultural activities, community

In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.

ADDITIONAL INFORMATION

Scope and dimensions of the role
To be agreed between the post holder and the Head of School

Key working relationships/networks	
Internal	**External**
- Pro Vice Chancellor & Head of College - Dean of Research - Head of School - Academics throughout the University - College Senior Academics - Research and other students - College / School academic, administrative and technical staff - Professional services staff - Other Colleges within the University	- External agencies - Funding bodies e.g. Research Councils - Professional& Regulatory Bodies, Educational establishments and organisations e.g. other universities - Professors, Associate Professors, Senior Research Fellows and other researchers elsewhere - Overseas partner institutions - Accrediting bodies

UNIVERSITY OF LINCOLN PERSON SPECIFICATION

JOB TITLE	Associate Professor in Robotics and Autonomous Systems	JOB NUMBER	COS009

Selection Criteria	Essential (E) or Desirable (D)	Where Evidenced Application (A) Interview (I) Presentation (P) References (R)
Qualifications:		
PhD in relevant discipline or equivalent demonstrated research record (normally by publication but where appropriate through professional achievement)	E	A
HE teaching qualification (HE PGCE or HEA fellowship) OR a commitment to complete one	E	A
Experience:		
Proven substantial track record of internationally excellent outputs that would be returnable in the REF	E	A/I
Experience of developing funded research projects in the specialist area	E	I
Experience of working within a research team	D	A/I
Experience of teaching postgraduate students	D	I
Experience of supervising research students (preferably to completion)	E	I
Experience of efficient administration and management of research and/or teaching programmes	E	A/I
Skills and Knowledge:		
Evidence of a substantial research profile in subject area	E	A
Evidence of successful engagement (projects/funding) with key external agencies	E	A
Recent, internationally excellent research outputs	E	A
Ability to demonstrate leadership skills in relation to research initiatives	E	I
Ability to apply research to teaching and learning and assess across the range of taught levels offered	E	I/R
Excellent verbal and written communication skills	E	I/R
Team worker with good interpersonal skills, able to motivate others	E	A/I
Able to build effective working relationships with a wide range of staff and external agencies	E	I/R
Competencies and Personal Attributes:		
Flexibility and adaptability	E	I/R
Initiative and independence in thinking/approach	E	A
Commitment to the subject area and the drive to improve	E	I

Essential Requirements are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

Author	SAM	HRBP	SP

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