

UNIVERSITY OF LINCOLN JOB DESCRIPTION

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

CONTEXT

The University of Lincoln is an ambitious Higher Education institution. 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 particular strengths in Computer Vision, Machine Learning, Robotics and Autonomous Systems, and Human-Computer Interaction.

The School of Computer Science seeks to appoint a Professor with an established and sustained profile, making an 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; contributing to real-world applications with positive impacts; and conducting, directing and leading research in line with the targets set by the School.

In addition, professors are involved in University service beyond your School and College, making a major contribution to the work of the University. Professors demonstrate continuing academic attainment and achievement, as well as providing academic leadership through active contribution to their discipline that maintains, enhances and improves 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), which is specialised in the integration of perception, learning, decision-making, control and interaction capabilities in autonomous systems, and the applications of this research in domains including agri-food, healthcare, intelligent transportation, logistics, nuclear robotics, and service robotics. L-CAS is one of the most successful robotics groups in the UK, participating in a large number of collaborative research projects with other academic and industry partners, funded by the UK Research Councils, Innovate the UK and Horizon 2020, among others. It provides a highly-dynamic, inter-disciplinary research environment, with a broad range of collaboration opportunities and a large variety of robots to work with.

We would welcome applications from new areas that complement our existing research specialisms, such as (but not limited to): robotic manipulation and grasping; mobile manipulation; fleet robotics; robot learning; haptics, etc. 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.

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

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 interdisciplinary 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 & ACCOUNTABILITIES

Teaching and Learning

Professors are expected to contribute towards teaching delivery and the creation of an engaging and innovative teaching environment that supports effective student learning and a high quality student experience.

Professors are expected to contribute to the subject portfolio of programmes, including postgraduate/research degrees by:

- Undertaking teaching at undergraduate and/or postgraduate levels and carrying out all related activities, achieving sustained levels of student progression and feedback
- Leading on research-engaged teaching in subjects and areas related to the post-holder's research and developing initiatives based on feedback which evidences impact
- Leading on improved approaches to teaching and learning, informed by pedagogic research and engagement with practice, within their own subject area(s), across the Department/School and ideally beyond the University
- Collaborating with colleagues in curriculum development and the advancement of the discipline within the University and disseminate best practice in teaching and learning
- Conducting academic administration, including contribution to programme and/or unit management duties, as appropriate
- Contributing to the development and implementation of learning and teaching strategies within the School and across the College/University
- Supporting students undertaking doctoral research in their subject and supervising them to completion

Research

A Professorship that is focused on research is a leadership role making a significant contribution to the research environment and the research profile of the School or College in a variety of ways, including:

- Maintaining an internationally excellent track record in research outputs, and providing a leading personal submission to the REF
- Effectively leading on aspects of the development of research within the School/College/University, such as:
 - Leading and managing a research centre, research group or impact case studies
 - Leading the School's response to major research initiatives (e.g. REF)
 - Coordinating a significant area of School research activity
 - Chairing relevant College or School committees
 - Representation of the School and/or College on University committees and working groups
- Attracting external, significant and sustained research funding from various sources, including research councils, charities, government-funded bodies and European Union and overseas bodies, to support and develop research
- Providing supervision and mentoring to academic and research staff, supporting them in developing a funding profile, the development of their personal research track record and research impact. Acting as PI on large-sized research grants
- Leading and managing collaborative research projects
- Supporting the School's international development, including forging international research links
- Attracting and supervising postgraduate research students
- Developing research through "impact" activities, e.g. patenting, commercialisation, influencing policy or public or professional discourse
- Enhancing the research environment of the University through wider engagement at

- College/University level, chairing external bodies, organising conferences and senior engagement with learned societies or major stakeholders
- Coaching and mentoring other colleagues in the development of their research profiles

External Engagement and Enterprise

- Attract external funding, where appropriate, through enterprise activities, including applied research, consultancy and knowledge transfer activity, to achieve income diversification and improve academic reputation
- Engage with external employers and stakeholders on applied and related work, where appropriate, in the furthering of academic, professional or learning excellence, and to improve the student experience
- Lead on and mentor colleagues on knowledge exchange activities and projects, such as Knowledge Transfer Partnerships, to enhance the skills of the University community
- Represent the School and University on external practitioner, employer, and policy bodies and networks, such that the interests and strategies of the University are advanced
- Support and enable the development of academic and related (e.g. policy) partnerships and linkages that further the academic development of the School and the University's strategic plan
- Active involvement with academic and/or professional bodies
- Lead on and undertake public engagement activities

Student Support

- Act as academic tutor to students, as allocated by the Head of Department, 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
- Supervise research degree students, as appropriate
- Supervise student projects and placements, as appropriate

Citizenship

- Support the Head of School in the management and direction of the School, as appropriate and as agreed with the Head of School
- Contribute to and support the University's strategy and strategic plan, with leadership of activities contributing to general university life, e.g. open days, student activities, alumni events, mentoring schemes, assisting professional services, engagement with student support and delivery of outreach activities, e.g. school visits, local community activities
- Contribute to the efficient administration, organisation and development of professional practice and/or scholarship within the School or College
- Participate in and, where appropriate, convene relevant related groups/committees in the School or College, as well as leadership/membership of committees/groups contributing to university life, e.g. health and safety, equality diversity and inclusivity, sustainability, working groups
- Contribute 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 with/leadership of external partnerships, contributing to the civic mission of the University. Participation of external activities, such as volunteering, school governor, employment committees, third sector governance, cultural activities, other relevant community activities. Leadership and promotion of the university's civic mission through, for example, publications, talks, outreach

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

All academic staff are expected to contribute fully to the School's focused approach towards research, publication and external income generation.

The role of Professor is key to the academic development and performance of the University. Professors are expected to have an international reputation in their field, and also to mentor colleagues to drive improved outcomes and achieve their personal objectives and goals. They are also expected to engage in external networks in their area(s) of expertise and to generate income through research, scholarship and other externally-supported projects.

Engagement with practice, enterprise, innovation and employer engagement may also be closely associated with aspects of a Professor's remit.

An important part of the role is improvement of both the research culture and the teaching and learning environment, including leadership within the School and College. Although based in a specific School, the expectation is that Professors will contribute fully to the academic and intellectual environment of the University and its activities.

The exact balance of duties will be agreed with your line manager, depending on expertise, interest and the strategy of the University, on an annual basis.

Key working relationships/networks

Internal	External
<ul style="list-style-type: none"> • Pro Vice Chancellor & Head of College • Head of School • Other Professorial staff in the School and College • Other academics inside/outside the School and College • Researchers and research students/Educationalists, Programme Leaders and Principal Lecturers (Teaching) • Research and Enterprise/LALT • Service staff 	<ul style="list-style-type: none"> • External agencies • External Examiners • Funding bodies, e.g. Research Councils • Professional & Regulatory Bodies, Educational establishments and organisations e.g. other universities • Research/Project collaborators and partners • Overseas partner institutions • Accrediting bodies

**UNIVERSITY OF LINCOLN
PERSON SPECIFICATION**



JOB TITLE	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 of achievement (normally by publication but, where appropriate, through professional achievement)	E	A	
HE teaching qualification or recognition (PGCE(HE) or HEA Associate Fellow) OR a commitment to complete one within an agreed timescale	E	A	
Experience:			
Proven track record of internationally excellent and world leading research outputs	E	A/I	
A track record of leading activities that have significant impact within or beyond the University	E	A/I	
Broad teaching experience at undergraduate and taught postgraduate level	E	A/I	
Proven track record of sustained income generation to support research work	E	A/I	
Experience of leading a research team and educational projects	E	A/I	
Experience of leadership and administrative management in HE	D	A/I	
Experience of supervising research students to completion and/or supervision of research staff	E	I	
Experience of efficient administration and management of research and/or teaching programmes	E	A/I	
Significant experience of enhancing teaching quality and improving the student experience	E	A/I	
Sustained national/international reputation for research/teaching/pedagogy	E	A/I	
Responsibility for academic quality and standards assurance	E	A/I	
Educational leadership beyond own School	E	A/I	
Skills and Knowledge:			
Ability to develop and lead a portfolio of research/educational projects	E	A/I	
Ability to lead and motivate others	E	I	
Excellent written and verbal communication skills	E	A/I/P	
Extensive knowledge of the HE sector	E	A/I	

Ability to develop and maintain an effective professional network and engagement with key agencies	E	A/I
Ability to apply research to teaching and learning	E	I/R
Excellent organisational skills	E	I
Ability to build effective working relationships with a wide range of staff and external agencies	E	I/R
Competencies:		
Flexibility and adaptability	E	I/R
Initiative and independence in thinking/approach	E	I
Commitment to the subject area and the drive to improve	E	I
Business Requirements:		
Ability and willingness to travel on School, College or University business, including overseas	E	A

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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