

<b>Job Title:</b>	Professor in Machine Learning and AI (Research and Teaching Track)
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<b>Responsible to:</b>	Head of Department or Faculty
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<b>Responsible for:</b>	Research staff employed on programmes and awards directed by the post holder. May have supervisory responsibility for other staff.
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<b>Job Summary and Purpose</b>
<p>To develop and lead a significant programme of research in line with the Faculty's research strategy, attracting and securing significant research funds.</p> <p>To provide academic leadership in undergraduate and postgraduate courses within area of expertise.</p>

<b>Main Responsibilities/Activities</b>
<p><b>To develop the research activities of the Faculty and the University by:</b></p> <p>Leading a significant programme of research, sustaining an extensive track record of published research findings in appropriate, peer reviewed research journals and/or monographs to maintain and enhance expert reputation in own subject area.</p> <p>Planning, co-ordinating and leading a significant programme of research in accordance with a specific project plan through a research team or a group of staff involved in research. Managing the financial and physical resources associated with the research activities. Supervising and guiding the work of staff and research and doctoral students on own specialist area.</p> <p>Leading innovative research proposals and submitting funding bids, winning support for them and planning the research to be taken, as a self-contained item or as part of a broader programme. Obtaining and sustaining research, consultancy and other additional funding</p> <p>Seeking collaborative research opportunities with other members of Faculty staff and develop multidisciplinary research links with other parts of the University where appropriate.</p> <p>Developing research activities which extend current thinking in the subject area, thereby enhancing the reputation of the Faculty and the University.</p> <p>Maintaining an expert reputation in own subject area and providing appropriate guidance to staff and students</p> <p>Engaging in external activities in accordance with the Faculty's research strategy at a national and international level. Such activities will include membership of committees of academic and professional bodies, external examining, editing journals and contribution to professional networks, national and international meetings, societies and bodies (including governmental ones).</p> <p>Engaging in external activities in accordance with the Faculty's research strategy at a national and international level. Such activities will include contribution to professional networks, national and international meetings, societies and bodies (including governmental ones).</p> <p>Attending appropriate national and international conferences for the purpose of disseminating research results.</p> <p>Leading major funding bids which develop and sustain research support for the specialist area and advance the reputation of the Faculty and the University.</p>

Sustaining and developing professional expertise and maintaining the requirements for registration with the appropriate body (*for academics with clinical links only*).

Contributing to the wider national and international academic community general life and work of the University through, for example, editing journals and refereeing papers.

**To develop the teaching activities of the Faculty by:**

Providing academic leadership at undergraduate and/or postgraduate level, as appropriate, by leading the development of new teaching methods and designing programme units and taking responsibility for the quality of programme units.

Taking an active role in teaching at undergraduate and postgraduate level; planning, delivering and critically reviewing a range of teaching and assessment activities including lectures.

Setting/marking programme work, practical sessions, supervisions, fieldwork and examinations according to own area of subject specialism, and providing appropriate feedback to students.

Taking part in activities such as validating and examining in relation to the University's associated institutions.

**To engage in scholarship by:**

Continually updating knowledge and understanding in the field or specialism. Extending, transforming and applying knowledge acquired from scholarship to teaching, research and appropriate external activities.

**To undertake pastoral care of students by:**

Using listening, interpersonal and pastoral care skills to deal with sensitive issues concerning students and provide support. Appreciating the needs of individual students and their circumstances. Acting as personal tutor and giving first line support. Taking responsibility for the initial resolution of all student issues within and outwith standard procedures, and ensuring that an appropriate framework is developed and used for pastoral care issues.

**To contribute to the efficient management and administration of the Faculty, the University and the wider academic community by:**

Performing personal administrative duties throughout the Faculty and the University as are recognised by the University as properly within the remit of role of professor, such as research group leader and roles associate with teaching programmes, as allocated by the Head and contributing to the general life and work of the University.

Advising, supervising and giving guidance to other staff. Taking overall responsibility for the welfare of staff drawing on specialist advice and support.

### Person Specification

#### The post holder must have:

A higher professional qualification, normally a doctoral degree or equivalent

Outstanding qualities and achievements in scholarship and research at a national and international level which have made a significant contribution to the advancement of their subject

Significant academic publication record

Evidence of leadership in research, including postgraduate research supervision

Teaching programmes, and/or internationally recognised textbooks.

Evidence of securing a significant amount of sustained research funding

Proven management and leadership qualities at a senior level

Proven administrative ability at a senior level

Evidence of contributions to conferences, professional meetings and societies at an international level and evidence of achievements in other external activities at an international level.

Evidence of high quality teaching at undergraduate and postgraduate level

### Relationships and Contacts

Professors are expected to accept invitations to serve on national and international bodies, including governmental bodies. They will also be expected to contribute to the University by taking on roles that enable the University to meet its administrative needs.

To attract research funding, a Professor will be expected to liaise with existing and potential sponsors.

Teaching and administrative duties will be allocated by the Head of Faculty, within the context of the teaching programmes agreed by the Faculty Learning and Teaching Committee

### Special Requirements

The post holder is expected to work outside normal office hours as necessary.

#### All staff are expected to:

- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Help maintain a safe working environment by:
  - Attending training in Health and Safety requirements as necessary, both on appointment and as changes in duties and techniques demand
  - Following local codes of safe working practices and the University of Surrey Health and Safety Policy
- Undertake such other duties within the scope of the post as may be requested by your Manager.

### Addendum

This document provides additional information relating to both specific aspects of the post/faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Job Purpose.

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### Background Information/Relationships

The School of Computer Science and Electronic Engineering is the largest school in the Faculty of Engineering and Physical Sciences. The teaching is organised at School level and research is organised within the following research centres: Advanced Technology Institute (ATI), the Centre for Vision Speech and Signal Processing (CVSSP), the Computer Science Research Centre (CSRC) and the Institute for Communication Systems (ICS).

The [Surrey Institute for People-Centred AI](#) (PAI) is the founding pan-university institute at the University of Surrey, bringing together core AI-related expertise in audio-visual AI, machine learning, signal processing, robotics, computer science, and mathematics, with domain expertise across engineering and physical sciences, human and animal health, law and regulation, business, finance, the arts and social sciences. Surrey has a track-record of 40 years as a pioneer and international leader in the fields of pattern recognition, machine learning, computer vision and robotics through the Centre for Vision, Speech and Signal Processing (CVSSP). Our multi-disciplinary approach puts people at the heart of AI. Our research starts with the problems that impact individuals, communities and society, and identifies how AI can address these challenges safely, responsibly and inclusively. PAI's success builds on the strength of the University research in AI in both CVSSP and CS.

### Focus of the role

To undertake research leadership to support the growth of AI research in Large Machine Learning Models and their applications including NLP, contribute to pan-university activity as a core member of the Surrey Institute for People-Centred AI(PAI) contributing to leadership of strategic cross-disciplinary research challenges, and engage with wider stakeholders to strengthen industrial collaborations.

Line Manager: Professor Steve Schneider (Director of the Computer Science Research Centre) and Professor Adrian Hilton (Director of the Surrey Institute for People-Centred AI)

### Person Specification

This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role. This is in addition to the criteria contained within the accompanying generic Job Purpose.

Qualifications and Professional Memberships	Essential/ Desirable
A PhD in AI, Computer Science, Engineering or other closely related area.	E

Evidence of research leadership and international profile	E
Experience of attracting external grant funding at an international level	E
Evidence of leadership in quality research outputs at an international level	E
Evidence of engagement with wider stakeholders developing strategic partnerships and supporting collaborations	E
Evidence of working collaboratively within a team and supporting people	E
Evidence of teaching in Computer Science or Engineering experience	E
Excellent communication, inter-personal and networking skills	E
Demonstration of supporting PhD student research	E
<b>Key Responsibilities</b> This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities. This should be read in conjunction with those contained within the accompanying generic Job Purpose.	
<ol style="list-style-type: none"> <li>1. Make a significant contribution to the School's strong research profile through strategic leadership of a research agenda.</li> <li>2. Make a strong contribution to the School's teaching programmes at all levels, including transnational activities and online activities.</li> <li>3. Contribute to the School's network of activities.</li> <li>4. Contribute to leadership of the pan-university Surrey Institute for People Centred AI.</li> </ol>	
<b>N.B. The above list is not exhaustive.</b>	