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.

Job Title:	Lecturer/Senior Lecturer/Reader in People-Centred AI

Surrey Institute for People-Centred AI (PAI) appointment

Faculty School/Department(s) for collaboration:

Centre for Vision, Speech and Signal Processing (FEPS), and School/Department(s) linked to areas of People-Centred AI domain expertise (FASS, FEPS, FHMS)

Job Summary/Purpose

The appointee will be expected to lead research, collaboration and project grant applications in AI and AI-Domain collaboration aligned with the PAI Institute research strategy in People-centred AI. The post holder will establish and lead a portfolio of research, in collaboration with other domain experts across the University and AI experts in the Centre for Vision, Speech and Signal Processing and Departments of Computer Science and Mathematics.

The appointee will teach in the School of Computer Science and Electronic Engineering at both undergraduate and postgraduate level in both his/her specialist areas. The post holder will also contribute to leading and delivering teaching in cross-University AI programmes at postgraduate level.

The Institute will be truly cross-disciplinary, drawing on AI and domain expertise across all of the faculties and encouraging the creation and sharing of innovative ideas and approaches to foster new research directions and collaborations. The Institute research agenda will centre on the people and societal AI 'grand challenges' identified by UKRI, AI Council, Society 5.0 and United Nations Sustainable Development Goals. The appointee should have expertise and experience in AI and its application aligned with the following cross-cutting AI grand challenges for people and society which link Surrey areas of excellence in AI with domain expertise:

Trustworthy & Responsible AI

How can we ensure AI is of benefit to all?

Trustworthy AI ensuring fairness, inclusion and benefit for all in society is central to the future acceptance and adoption of AI technologies in areas from healthcare to education. Realisation of trusted AI technologies requires cross-cutting collaboration in AI governance (law, regulation, ethics), AI technology (explainability, uncertainty, fairness/bias) and end-user application domains (health, business, entertainment). Responsible AI must be embedded throughout research, design, development and deployment of AI technologies. The PAI Institute must become a leader in Trustworthy AI governance, technology and training drawing on strengths in Law and Sociology with cutting edge AI Science.

AI for Education, Information & Entertainment

How can AI improve learning and access to trusted information?

AI is disrupting almost all aspects of our lives requiring new workplace skills, new approaches to life-long learning and the retraining of people for the AI enabled workplace. Training for AI leadership in business and the public sector is essential to realise responsible AI, corporate governance and shaping of the future workplace. AI will transform the way we learn, communication and access information enabling new forms of personalised education and media content, opening the possibility for personalised

messaging in public services such as health. AI Education must include both responsible AI and transformational AI paradigms such as Quantum computing. Surrey must become a leader in trusted AI training, education, leadership and personalised media.

AI for Health and Wellbeing

How can AI improve health and wellbeing?

AI holds great promise for transforming almost every aspect of healthcare and health research, ranging from monitoring, diagnosis, clinical trials and health care delivery to health economics. AI has the potential to personalise healthcare monitoring, diagnosis and treatment for the individual in the community and at home. Realisation of the potential of AI in healthcare requires strong linkage between AI expertise, existing health (domain) expertise, key stakeholders (NHS) and the public. Surrey must establish an integrated AI-Health ecosystem with key stakeholders to lead the translation of AI enabled technologies into healthcare practice for individual patient benefit.

Human-AI Interaction & Cooperation

How can AI systems understand, interact and communicate naturally with people?

Natural interaction between people and AI is essential for future AI enabled systems across all domains. Building on Surrey cross-disciplinary strength in AI for audio-visual machine perception of people, language translation, human perception and interaction design there is potential to lead future research in natural human-machine communication. This will underpin the realisation of assistive systems in healthcare and in hospitality. The Institute will promote research on human-in-the-loop AI systems integrating the strengths of human and machine intelligence for decision support.

AI for Society 5.0

How can AI transform business and the workplace for the benefit of society?

AI is disrupting business models and working practice with digital supply chains and new digital platforms leading to new value creation. The challenge is to understand the macro-scale societal impact of the AI transformation and lead research and policy to ensure adoption of approaches which are inclusive, fair and benefit society. Research should address AI for personal and societal security of the individual and their data, drawing on Surrey leadership of DECaDE the National Centre for Decentralised Digital Economy. AI for Society 5.0 must address the grand societal challenges aligned with national priorities and Surrey strengths: health; security; food; education; environment; digital economy.

Person Specification AI

- Research leadership in AI, machine learning, data science, computer vision, audio-visual machine perception and/or natural language processing as they relate to Trustworthy AI.
- A strong research and publication record.
- Experience in developing research proposals and securing research income.
- Experience or demonstrated ability to supervise postgraduate research students.
- Demonstrated track-record of successful research leadership and collaboration.
- Experience of working with industry and other professional bodies.
- Excellent presentation, communication and interpersonal skills.
- Consistently collegial and supportive approach to students and colleagues.
- Experience and potential for independent and collaborative research leadership.

Person Specification AI-Domain

The post-holder will lead and conduct AI-Institute research linking AI and domain expertise related to at least one of the five People-Centred AI research challenges.

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.

	Essential/ Desirable
A higher research degree (PhD)	E
Internationally Excellent research performance (continuing publication record, and evidence of actual/potential ability in external research grant income generation)	E
Strong publication record with a track record of publishing in high quality (such as upper quartile) journals.	E
Excellent communication, inter-personal and networking skills.	E
Excellent organisational and project management skills	E
Potential and willingness to develop a track record in academic leadership	D
Demonstrated ability to successfully supervise doctoral students	D
Evidence of ability to carry out high-quality teaching	E
Evidence of scholarly contributions to conferences, professional meetings and societies at an international level, and evidence of achievements in other external activities at an international level	E

Key Responsibilities

This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Job Purpose.

Main Responsibilities/Activities

- Contribute as a Principal Investigator of the AI Institute to establishing and leading pan-University research in People-Centre AI for the benefit of people and society.
- Lead a programme of research by managing associated financial/physical resources and recruiting/supervising/guiding/mentoring the work of staff and postgraduate students in own specialist subject area.
- Contribute to teaching in AI and areas of domain expertise including pan-University programmes in AI.
- Sustain a strong track-record of publication of high-quality research findings in appropriate primary journals and international conferences.
- Maintain a good level of research funding; contribute to planning and coordinating large multi-disciplinary or multi-Faculty bids involving collaborative groups.
- Enhance reputation in own subject area by engaging in external activities at national level such as contributions to professional networks, meetings, conferences, societies, professional and/or government bodies, editing/refereeing journals and papers.
- Perform administrative duties throughout the Institute and School as are recognised by the University in roles commensurate with the remit of an academic (e.g., Research leadership and administration, Director of Studies, Programme

Director or Examinations Officer) and which contribute to the general life and work of the University.

N.B. The above list is not exhaustive.