

## Academic Role Profile

### 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 AI and NLP

**Surrey Institute for People-Centred AI (PAI) appointment****Faculty School/Department(s) for collaboration:**

Centre for Vision, Speech and Signal Processing (FEPS), Centre for Translation Studies (FASS), Department of Mathematics (FEPS), Department of Computer Science (FEPS), School of Computer Science and Electronic Engineering (FEPS)

**Job Summary/Purpose**

The appointee will be expected to lead research, collaboration and project grant applications in Artificial Intelligence (AI) and Natural Language Processing (NLP) 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 domain experts across the University.

The postholder will have experience in one or more of the following areas: multimodal information processing, integration of computer vision and natural language processing, and/or multimodal machine translation, in this way benefitting and/or complementing the existing expertise in the university in the areas of signal processing, and language, speech and translation technology in the Centre for Vision, Speech, and Signal Processing and the Centre for Translation Studies. Regardless of the research background of the appointed person, it is expected that they will be carry out research which considers the “human-in-the-loop”.

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 in addition to general contribution with the Department programmes. The post holder will also contribute to leading and delivering teaching in cross-University AI programmes at postgraduate level.

**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. Training for AI leadership in business and the public sector is essential to realise responsible AI, corporate governance and shaping of the future workplace.

**Person Specification AI**

- Research leadership in AI, machine learning, data science, computer vision, audio-visual machine perception and/or natural language processing.
- A strong research and publication record.
- Experience in developing research proposals and securing research income together with supervising postgraduate research students.
- Demonstrated track-record of successful research leadership and collaboration.
- Familiarity with development, delivery and assessment of programme units.

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- Experience of working with industry and other professional bodies.
- Excellent presentation, communication and interpersonal skills.
- Experience and potential for independent and collaborative research leadership.

### Person Specification AI-NLP

- Research leadership in NLP, or in AI/machine learning/data science with direct application to NLP.
- Experience in multimodal information processing, integration of computer vision and natural language processing, and/or multimodal machine translation is a plus
- A strong research and publication record demonstrated through publication in top tier journals and conferences

### 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) in Natural Language Processing, Computational Linguistics, AI or Computer Science	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 and top NLP conferences	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 high-quality teaching	D
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
Experience in multimodal information processing, integration of computer vision and natural language processing, and/or multimodal machine translation	D

### 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.
- Develop and lead a research portfolio in the area of AI and AI-domain collaboration.
- Contribute to and lead teaching within at undergraduate and postgraduate level.
- 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.

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- 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/Department/Schools as are recognised by the University in roles commensurate with the remit of an academic (ie, Director of Research, Director of Studies, Programme Director and Examinations Officer) and which contribute to the general life and work of the University.

**N.B. The above list is not exhaustive.**