UNIVERSITY OF SUSSEX

1 Advertisement

Post Title: Lecturer in Computer Science and AI x4 Posts
School/department: Engineering and Informatics/Informatics
Hours: full time or part time hours considered up to a maximum of 1.0 FTE
Requests for flexible working options will be considered (subject to business need).
Contract: Permanent
Reference: 8060
Salary: Grade 8 starting at £43,414, rising to £51,805 per annum, pro rata if part-time.
Placed on: 30 August 2022
Closing date: 20 September 2022. Applications must be received by midnight of the closing date.
Expected Interview date: TBC
Expected start date: TBC

The School of Engineering and Informatics at the University of Sussex is appointing new academic staff in Computer Science and Artificial intelligence as part of a strategy to grow and complement the current strengths in the Department of Informatics.

We wish to appoint a Lecturer in Computer Science and AI to work in the Department of Informatics. This position is equivalent to Assistant Professor.

The successful candidate will undertake research and teaching within the department. They will be associated with one of the research groups (Artificial Intelligence, Creative Technology, Foundations of Software Systems) and expected to teach at undergraduate and postgraduate levels.

Applications should be accompanied by a full CV, and statements of future research plans and ways in which the applicant could contribute to teaching across the School.

Please contact Dr Ian Mackie I.Mackie@sussex.ac.uk, Head of the Department of Informatics, for informal enquiries.

The University is committed to equality and valuing diversity, and applications are particularly welcomed from women and black and minority ethnic candidates, who are under-represented in academic posts in Science, Technology, Engineering, Medicine and Mathematics (STEMM) at Sussex.

Please note that this position may be subject to ATAS clearance if you require visa sponsorship.

For full details and how to apply see our vacancies page

The University of Sussex values the diversity of its staff and students, and we welcome applicants from all backgrounds.

2. The School of Engineering and Informatics

The School of Engineering and Informatics covers the disciplines of computer, electrical and electronic engineering, mechanical, and automotive engineering, product design, digital media, computer science and informatics.

Distinctive characteristics of the School are: creativity, interdisciplinarity, strong links with industry, and an international outlook in both research and teaching. £10m (£4.9m from HEFCE) has been invested in the Future Technologies Laboratory as a result of a 60% surge in applications for the School's degrees.

The School offers a range of undergraduate and postgraduate degrees in its areas of expertise, often in collaboration with other schools at Sussex, to create a distinctive focus which addresses the needs of industry, commerce and society. Examples include joint degrees with the MSc in Artificial Intelligence and Adaptive Systems (AIAS) which includes modules from the Schools of Engineering and Informatics and Psychology; and the MScs in Engineering Business Management, and Management of Information Technology, which were developed in collaboration with the School of Business, Management and Economics.

This interdisciplinary approach also applies to our research, with current and recent externally funded projects with researchers in a wide range of other subject areas including geomorphology, media practice, medical imaging, neuroscience, anthropology, English literature, epidemiology, geography, international development, mathematics, psychiatry, psychology and sociology.

The School has strong links with industry, and has an established Strategic Advisory Board. Innovative research across the School has led to a number of patents which are being commercialised including: novel electric potential sensors (EPS) licensed to Plessey Semiconductors and marketed as the EPIC sensor chip; and University spin-out companies, including InCrowd Sports, which is deploying delay-tolerant networking to provide smartphone connectivity in large crowds, and TexRAD, which has developed software for the analysis of medical images and has recently demonstrated the ability to detect brain texture anomalies in Asperger's Syndrome patients. These developments are supported by the University's Enterprise fund. The EPS sensor technology was awarded the IET Innovation award for 'Measurement in Action' and shortlisted for two other IET categories and for a THES award.

The School is, for administrative purposes, comprised of two departments: the *Department of Informatics* and the *Department of Engineering and Design*. Staff teach across the School, and undertake research on cross-School, as well as cross-University projects.

In addition, there is a School-wide research group in **Creative Technology**. The Group brings together a number of academics working in the areas of human-centred technology, product design, experience design, tangible and physical computing, games, digital media, digital cultural heritage, child-computer interaction, novel interfaces, animal-computer interaction, broadcast technologies and social innovation.

2.1 Department of Engineering and Design

The Department of Engineering and Design has a strong reputation for excellence in research and teaching. Its research outputs were rated as 88%, and impact as 90% 4*/3* (world-leading/internationally excellent) in the REF 2014.

The Department's students won the automotive category of the Telegraph UK STEM Awards 2014 sponsored by McLaren Group (link to video).

Research activity is focused on mechanical engineering (turbomachinery, dynamics and control, and tribology); and electronic engineering (sensor technology, image and signal processing, and mobile digital communications). There are strong collaborations with industry, including Jaguar Land Rover, General Electric, Plessey Semiconductors and Meggitt Sensing Systems.

The Department's research is organised into six groups:

- Dynamics, Control and Vehicle Research Group (www.sussex.ac.uk/dcv)
- Industrial Informatics and Signal Processing Research Group (http://www.sussex.ac.uk/iisp/)
- Sensor Technology Research Centre (www.sussex.ac.uk/strc/)
- Thermo-Fluid Mechanics Research Centre (http://www.sussex.ac.uk/tfmrc/)
- Centre for Advanced Communications, Mobile Technology and IoT
- Space Research Group

The Department currently has 665 undergraduate students, 63 taught postgraduate students, and 39 postgraduate research students.

The Department's undergraduate courses, all of which are accredited and have an industrial placement year option, include:

MEng (Hons) / BEng (Hons) Automotive Engineering
MEng (Hons) / BEng (Hons) Electrical and Electronic Engineering
MEng (Hons) / BEng (Hons) Mechanical Engineering
BSc (Hons) Product Design.
Both Electrical and Mechanical Engineering can be taken with a Robotics minor.

The Department's masters level courses, the majority of which are also accredited, are in the process of being reviewed as part of a cross-School process. Courses currently include:

MSc Advanced Mechanical Engineering
MSc 5G Mobile Communications and Intelligent Embedded Systems
MSc Digital Signal and Image Processing
MSc Robotics and Autonomous Systems
MSc Engineering Business Management

Detailed information about the Department can be found at *www.sussex.ac.uk/engineering*

2.2 Department of Informatics

The Department of Informatics is highly rated for its teaching and research. Its researchers work in an environment that was deemed to be wholly 4*/3* (world-leading/ internationally excellent) in the REF 2014.

The Department maintains a strong emphasis on interdisciplinary teaching and research and has substantive links with almost all other Schools of study at Sussex. Its research spans the theoretical and applied.

The Department's research is organised around the following three research groups:

- Artificial Intelligence
- Creative Technology
- Foundations of Software Systems

Members of Informatics play leading roles in the following interdisciplinary research centres at Sussex:

- Centre for Computational Neuroscience and Robotics (CCNR)
- Centre for Research in Cognitive Science (COGS)
- Sackler Centre for Consciousness Science (SCCS)
- Data Intensive Science Center, University of Sussex (DISCUS)
- Sussex Centre for Sensory Neuroscience and Computing (SNAC)
- Sussex Humanities Lab (SHL)
- Sussex Neuroscience

The Department has long-standing collaborations with a range of external organisations including Animazoo, the Clinical Practice Research Datalink, and American Express, which has sponsored over 120 MSc students in Informatics over the past 10 years.

The Department currently has 715 undergraduates, 102 taught postgraduates, and 67 doctoral students. Undergraduate courses that are accredited by the relevant professional institutions where appropriate, and have an industrial placement year option, include:

MComp (Hons) / BSc (Hons) Computer Science
BSc (Hons) Computer Science and Artificial Intelligence
BSc (Hons) Computing for Business and Management
BSc (Hons) Games and Multimedia Environments

The Department's masters level courses currently include:

MSc Advanced Computer Science
MSc Computing with Digital Media
MSc Artificial Intelligence and Adaptive Systems
MSc Management of Information Technology

Detailed information about the Department can be found at *www.sussex.ac.uk/informatics*

3. Job Description for Lecturer B

Job Title:	Lecturer in Computer Science and AI
Grade:	Lecturer B (Research & Education focussed), Grade 8
School:	Engineering and Informatics
Location:	Falmer Campus
Responsible to:	Head of School
Key contacts:	Students, other members of Faculty within the School and University, School Officers, academics in the field in other institutions.
Role Description	Lecturer B is a career-grade teaching and research position. Post-holders will be expected to take full responsibility for the design, management and delivery of their own teaching, be able to demonstrate an established research portfolio, and a growing reputation in their field of study. They will also be expected to provide support and guidance to less experienced members of staff.

PRINCIPAL ACCOUNTABILITIES

1. To design and deliver high-quality teaching programmes that are attractive to students.

2. To engage in individual and collaborative research activity resulting in high-quality publications to be submitted to the REF at acceptable levels of volume and academic excellence, and to obtain research funding and/or knowledge exchange income as appropriate to the discipline.

3. To contribute fully to the School and University by playing a significant role in working groups, committees, and other School and University activities.

KEY RESPONSIBILITIES

1. Teaching & Student Support

1.1 Engage in the planning, delivery and assessment of innovative high-quality undergraduate and postgraduate teaching, in liaison with the relevant programme and course convenors.

1.2 Identify, design, develop and manage new curriculum proposals that are attractive to students.

1.3 Develop high-quality inclusive teaching materials, methods and approaches, take responsibility for their quality, and ensure that they meet defined learning objectives.

1.4 Ensure that teaching materials remain up-to-date and relevant, incorporating advances in the subject area into the course of study, and utilising appropriate technology.

1.5 Set, mark, and assess coursework and examinations; select appropriate assessment instruments and assessment criteria and provide constructive and comprehensive feedback to students.

1.6 Undertake continuous professional development to maintain an understanding of appropriate pedagogy in the subject area.

1.7 Supervise the work of undergraduate and taught postgraduate students, providing advice on study skills.

1.8 Contribute to the accreditation of courses and quality-control processes.

1.9 Undertake and complete administrative duties required in the professional delivery of teaching.

1.10 Undertake academic advising duties, and provide first-line support for sensitive issues, referring on as appropriate to services providing further assistance.

1.11 Adopt an approachable and accessible attitude towards students, offering office hours, informal advice etc.

2. Research, Scholarship & Enterprise

2.1 Contribute to School research strategy and themes.

2.2 Develop research objectives and proposals for own or joint research.

2.3 Conduct research projects individually and in collaboration with others.

2.4 Assess, interpret and evaluate outcomes of research, and develop ideas for their application.

2.5 Produce high-quality research outputs that have impact in the field, for publication in monographs or recognised high-quality journals, or performance/exhibition, as

appropriate, and contribute to the School's REF submission at acceptable levels of volume and academic excellence.

2.6 Lead small research projects and/or identified parts of a larger project, including supervising the work of others and managing or monitoring a research budget, if appropriate.

2.7 Make presentations at conferences, or exhibit work in other appropriate events, and identify ways to disseminate research outputs informally via the internet, the media, and other forms of public engagement.

2.8 Identify sources of funding and secure or contribute to the process of securing bids.

2.9 Identify and secure opportunities for enterprise activity, knowledge exchange income and/or consultancy.

2.10 Actively build internal and external contacts, and play a key role in internal networks and relevant external networks in order to, for example, identify sources of funding, secure student placements, and build relationships for future activities.

2.11 Supervise doctoral students as part of a supervision team.

2.12 Contribute to a relevant national professional body or recognised events.

2.13 Continually update knowledge and understanding in field or specialism, and engage in continuous professional development.

2.14 Conduct risk assessments, and take responsibility for the health and safety of others, if required.

3. Contribution to School & University

3.1 Attend and contribute to School meetings.

3.2 Engage in activities beyond day-to-day teaching duties, for example Admissions Days.

3.3 Assist with undergraduate and postgraduate recruitment.

3.4 Play a key role in School or University working groups or committees, as required.

3.5 Advise and provide support to less experienced colleagues.

3.6 Undertake additional administrative duties, as required by the Head of School.

4. Role-specific duties

4.1 Contribute to the activities of their research group.
4.2 Contribute to teaching within the School of Engineering and Informatics in general areas of Computer Science and Artificial Intelligence.

4.3 Carry out a programme of research related to the areas covered by the department: Artificial Intelligence, Creative Technology, Foundations of Software Systems.

This Job Description sets out current duties of the post that may vary from time to time without changing the general character of the post or level of responsibility entailed.

INDICATIVE PERFORMANCE CRITERIA

- A record of development of new modules/groups of modules, course or significant components of schemes of study or CPD courses.
- Proven and sustained track record of successful teaching at the levels appropriate for the post.
- A high standard of teaching performance as judged by standard evaluation methods.
- Evidence of using feedback information from a range of sources to improve the student experience.
- Evidence of using knowledge arising from research and scholarship to enhance teaching and curriculum development.
- Evidence of engagement in advising students and proactively responding to student problems.
- Regular published output of original research at international level (refereed journal papers, monographs, book chapters, text-books).
- Other evidence of original research contributions to the field, such as through invited conference contributions, membership of editorial panels etc.
- Evidence of successful postgraduate masters and doctoral research supervision i.e. to completion.
- Sustained success in obtaining competitively awarded research grants and contracts, and knowledge exchange income.
- Involvement in the creation, transfer and use of the results of research through a range of knowledge exchange activities.
- Success in transferring research results to commercial, professional, public sector or other practical use.
- Evidence of contributions to a relevant national professional body or recognised event.

PERSON SPECIFICATION

ESSENTIAL CRITERIA

1. Normally educated to doctoral level, or other equivalent qualification, or appropriate level of experience, as appropriate to the discipline (see role-specific criteria below).

2. Excellent interpersonal skills, with the ability to engage with students using a variety of different methods.

3. Experience of teaching at undergraduate and taught postgraduate level.

4. Evidence of significant independent contribution to the design and execution of research.

5. An emerging track record of publications in reputable journals and other appropriate media of similar standing.

6. Excellent presentation skills, with the ability to communicate effectively, both orally and in writing, with students, colleagues and external audiences.

7. Ability to work individually on own initiative and without close supervision, and as part of a team.

8. Ability to exercise a degree of innovation and creative problem-solving.

9. Excellent organisational and administrative skills.

10. Ability to prioritise and meet deadlines.

11. A willingness to participate in support activities beyond normal classroom duties.

12. Excellent IT skills, with the ability to produce high-quality learning support materials.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1. A track record of internationally excellent research in Computer Science and related fields.

DESIRABLE CRITERIA

1. Experience of successful curriculum design or re-design.

2. A recognised higher education teaching qualification.

3. Experience of generating research or knowledge exchange income.

4. Experience of supervising postgraduate research students.