1 Advertisement

Post Title: Lecturer (E&S) in Computer Science and AI  
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: 5599  
Salary:  
Grade 7 starting at £33,797 to £40,322 per annum, pro rata if part time  
Grade 8 starting at £41,526 to £49,553 per annum, pro rata if part time.  
Placed on: 10 June 2021  
Closing date: 8 July 2021 Applications must be received by midnight of the closing date.  
Expected start date: 1 September 2021

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

This post is one of the three new positions created. We wish to appoint a Lecturer (Education and Scholarship) in Computer Science and AI to work in the Department of Informatics.

The successful candidate of this teaching focussed position should be able to teach general subjects in Computer Science and Artificial Intelligence at Undergraduate and Taught Postgraduate levels. They will work within the Artificial Intelligence Research Group including opportunities to interact with the robotics group in the Department of Engineering.

The AI Research Group at the University of Sussex was created through the merger of the Evolutionary and Adaptive Systems (EASy) and the Data Science groups. We conduct research and teach a wide range of AI related topics, often cross-disciplinary and with a unique Sussex angle. We collaborate internationally and locally with academics, businesses, and public stakeholders, working at the frontiers of knowledge, on solving real-world problems, and in policy and public outreach.

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.

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 a new 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 636 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) Computing for Digital Media
- 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 Information Technology with Business and Management
- MSc Management of Information Technology.

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

Job Title: Lecturer in Computer Science and AI
Grade: Lecturer A (Education Focused), Grade 7
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 A (Education Focused) is an entry level teaching position. Post-holders will be expected to teach in a developing capacity. Post-holders will be expected to establish an education portfolio (scholarship).

PRINCIPAL ACCOUNTABILITIES

1. To deliver and contribute to the design of high-quality teaching programmes to attract students.

2. To contribute fully to the School and University by participating in meetings, working groups, committees and other School and University activities.
KEY RESPONSIBILITIES

1. Teaching & Student Support

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

1.2 Contribute to the development, design and management of courses and new curriculum proposals that are attractive to students.

1.3 Ensure that teaching content, methods of delivery and learning materials will meet the defined learning objectives, including the use of appropriate technology.

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

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

1.6 Develop and maintain an understanding of appropriate pedagogy in the subject area and respond to challenges.

1.7 Supervise the work of undergraduate and taught postgraduate students, providing them with advice on study skills, projects, fieldwork and placements.

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

1.9 Make a significant contribution to the accreditation of courses and quality-control processes.

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.

1.12 Transfer knowledge in the form of practical skills, methods and techniques.

1.13 Supervise the work of students, provide advice on study skills and help them with learning problems.

2. Scholarship & Enterprise

2.1 Individually or with colleagues, explore opportunities for enterprise activity, third stream income and/or consultancy.
2.2 Build internal contacts and participate in internal networks and relevant external networks in order to form relationships and collaborations.

2.3 Supervise doctoral students as part of a supervision team, as appropriate to the discipline.

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

2.5 Translate knowledge of advances in the subject area into the course of study.

2.6 Undertake scholarship to inform education to ensure excellent learning experience for students.

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 Participate in School or University working groups or committees, as required.

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

4. Role-specific duties

4.1 Contribute to teaching within the School of Engineering and Informatics in general areas of Computer Science and Artificial Intelligence.

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
1. High quality teaching performance across a range of teaching activities, at different levels (year 1 undergraduate to postgraduate) appropriate to the discipline; as evidenced by surveys, questionnaires and peer review.

2. Evidence of skill in assessment and feedback techniques, and using a range of methods for evaluating the effectiveness of teaching.

3. Demonstrable contribution to the planning and development of courses.

4. Delivering a teaching load in line with School expectations.

5. Evidence of applying knowledge arising from scholarship to enhance teaching practice.

6. Evidence of active engagement in advising students and proactively responding to problems experience by students.

7. Completion, within a reasonable period of time, of a recognised higher education teaching qualification.

8. Efficient and effective contribution to academic support duties within the School or the University.

9. Initiating, developing or participating in links between the University and external bodies such as business and industry, the professions, community organisations and policy-makers.

10. Evidence of successful engagement in PhD supervision as appropriate to the discipline.

11. Efficient and effective contribution to academic support duties within the School or the University.
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 teaching methods.

3. Experience of teaching at undergraduate level.

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

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

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

7. Excellent organisational and administrative skills.

8. Ability to prioritise and meet deadlines.

9. A willingness to participate in student support activities beyond required teaching duties.

10. Excellent IT skills, with the ability to produce high-quality, inclusive learning materials.

ESSENTIAL ROLE-SPECIFIC CRITERIA

1. A PhD in computer science.

2. Experience of teaching, setting assessments and examining computing students at FHEQ Level 4 or above.

DESIRABLE CRITERIA

1. A recognised higher education teaching qualification.

2. Experience of teaching at postgraduate level.

3. Membership of professional body, if appropriate

4. Emerging record of developing an education portfolio with some focus on scholarship

CORE JOB DESCRIPTION
Job Title: Lecturer (E&S) in Computer Science and AI
Grade: Lecturer B (Education focused), 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 position. Post-holders will be expected to take full responsibility for the design, management and delivery of their own teaching. They will also be expected to provide support and guidance to less experienced members of staff.

PRINCIPAL ACCOUNTABILITIES

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

4. 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

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

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

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

1.17 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.

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

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

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

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

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

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

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

1.25 Supervise student projects, fieldtrips and, where appropriate, placements.

1.26 Supervise the work of others, and co-ordinate work to ensure modules are delivered to the required standards.

2. Scholarship & Enterprise

2.1 Make presentations at conferences, or exhibit work in other appropriate events, and identify ways to disseminate results of scholarly activity informally via the internet, the media, and other forms of public engagement.

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

2.3 Identify and secure opportunities for enterprise activity, knowledge exchange income and/or consultancy.
2.4 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.

2.5 Supervise doctoral students as part of a supervision team.

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

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

2.8 Engage in subject, professional and pedagogic research as required to support education activities.

2.9 Extend, transform and apply knowledge acquired from scholarship to education and appropriate external activities.

2.10 Conduct individual or collaborative scholarly projects.

2.11 Develop and produce learning materials and disseminate the results of scholarly activity.

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 Undertake an administrative or organisational role within the School e.g. Library Representative, Year Tutor or personal academic tutoring.

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

3.6 Advise and provide support to less experienced colleagues.

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

3.8 Undertake additional administrative duties, such as time-tableing, examinations, assessment of progress and student attendance, as required by the Head of School.

4. Role-specific duties

4.1 Contribute to teaching within the School of Engineering and Informatics in general areas of Computer Science and Artificial Intelligence.

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

1. A record of development of new modules/groups of modules, course or significant components of schemes of study or CPD courses.

2. Proven and sustained track record of successful teaching at the levels appropriate for the post.

3. A high standard of teaching performance as judged by standard evaluation methods.

4. Evidence of using feedback information from a range of sources to improve the student experience.

5. Evidence of using knowledge arising from research and scholarship to enhance teaching and curriculum development.

6. Evidence of engagement in advising students and proactively responding to student problems.

7. Evidence of contributions to a relevant national professional body or recognised event.

8. Evidence of identifying and employing current pedagogic best practice to improve the student experience.

9. Doctoral supervision

10. Involvement in the creation, transfer and use of results of research through a range of knowledge exchange activities.

11. Success in transferring research results into commercial, professional, public sector or other practical use.
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. Excellent presentation skills, with the ability to communicate effectively, both orally and in writing, with students, colleagues and external audiences.

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

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

8. Excellent organisational and administrative skills.

9. Ability to prioritise and meet deadlines.

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

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

ESSENTIAL ROLE-SPECIFIC CRITERIA

1. A PhD in computer science.

2. Experience of teaching, setting assessments and examining computing students at FHEQ Level 4 or above.

DESIRABLE CRITERIA

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

2. A recognised higher education teaching qualification.

3. Experience of supervising postgraduate research students.

4. Membership of professional body, if appropriate.

5. Emerging record of developing an education portfolio with some focus on scholarship.