



Lecturer in Computer Science

Department of Computer Science

Salary Grade 8 - £35,788 to £44,016 per annum

Available from 01 September 2011

Ref: SEN00185

At Leicester we're going places. Ranked in the top 12 universities in Britain our aim is to climb further. A commitment to high quality fused with an inclusive academic culture is our hallmark and led the Times Higher Education to describe us as "elite without being elitist".

The Department has a strong research program in the foundations of computational models, processes and structures, and the way they support the engineering of software-intensive systems, including socio-technical systems. The successful candidate will have a strong or promising research record in computer science that is aligned with or complements the department's research themes, and will be able to contribute to undergraduate and postgraduate teaching and supervision in software engineering. Ability to attract funding or engage with industry are other aspects that we will rate very highly.

The University

There's never been a more exciting time to join us. At the University of Leicester we are enjoying research success on a world stage and gathering the awards and plaudits to match.

A judge in a recent awards ceremony described Leicester as "elite without being elitist". We are proud to be elite. But we are at least as proud to be an inclusive and progressive university. This commitment to high quality, an inclusive academic culture and belief in the synergy of teaching and research are our hallmarks. We believe that teaching is inspirational when delivered by passionate scholars engaged in world-changing research that is delivered in an academic community that includes postgraduate as well as undergraduate students.

Our approach to research yields great rewards. Our research impact, measured by citations per academic, is the sixth highest in the UK. Our success in the 2008 Research Assessment Exercise saw Quality Related research income rise by 18% placing us firmly amongst Britain's top 20 research universities by this measure. The RAE also revealed that Leicester is home to Britain's top-rated research department – Museum Studies – which has the highest concentration of world class research of any department of any discipline in the UK.

For a university that believes teaching and research are synergistic, it is pleasing that the National Student Survey reveals the quality of our teaching is amongst the highest in the country. Since the launch of the survey in 2006, Leicester has consistently featured amongst the top-10 universities in England for student satisfaction. The Sunday Times recently described Leicester as "top... amongst mainstream multi-faculty universities for student satisfaction".

Currently a university of 23,000 students, with a turnover of £230m and 3,800 colleagues, our future is bright. Our Strategic Vision describes our plans to invest a billion pounds in our estate as we

transform our campus. Already ranked in the top-12 universities in Britain, by 2015 we aim to rise further to become top-10.

Leicester is the most inclusive of Britain's top-20 universities with the greatest proportions of students from under-represented groups.

As a group of talented individuals we are more diverse than ever and stronger for it. At Leicester we are proud of our distinct approach, our achievements and our ambitious plans. If you share our approach join us.

College of Science and Engineering

Pro Vice-Chancellor and Head of College: Professor Martin Barstow, BA PhD CSci CPhys F.InstP FRAS

This is an exciting time to join a dynamic new college and contribute to its development.

The College has 436 staff, 1928 undergraduate and 892 postgraduate students. It has an annual turnover of £39M. The new College is creating the academic and physical environment to enable scientists and engineers to work together across traditional boundaries to address some of the grand research challenges and to engage with increasing effectiveness with business and industrial partners.

The College is made up of seven research-led departments: Chemistry, Computer Science, Engineering, Geography, Geology, Mathematics, and Physics and Astronomy. Together, these departments teach approximately 20% of the University's campus based undergraduate students. Our students undertake diverse programmes of study, from human geography, through a range of laboratory-based subjects including engineering. Our departments have contributed to the University's ascent through national league tables with consistently excellent scores in the National Student Survey and a very strong performance in the 2008 RAE. Our departments also generate more than a third of the University's research income.

Our College has a reputation for research of international quality and is home to several specialist multidisciplinary, interdisciplinary and intra-disciplinary research centres. These centres included Space Research, Climate Change Research, Mathematical / Computational Modelling and Advanced Microscopy. A new Energy Centre is also being proposed. Researchers within the College have international reputations and collaborate with esteemed colleagues throughout the world, making it an exciting environment for both teaching and research.

The College has led the development of High Performance Computing within the University culminating in the establishment of a dedicated centrally-funded HPC unit and the installation of the ALICE state-of-the-art £2M, 2048 processor super-computer. This facility is freely available to all University staff for their research projects.

Our students benefit from following best practice and working alongside leaders in their fields. Approximately a quarter of our undergraduate students go on to study for a higher degree. Our graduates are much sought after by employers – either by going directly into employment in the broad area of their degree subject, or pursuing successful careers in diverse areas such as education, commerce, IT and the public sector.

The key strategic aims for the College over the next five years are:

- To ensure a strong performance in the REF and beyond, improving on the RAE 2008 results
- To establish two or three new large interdisciplinary research programmes
- To maintain, and improve where possible, the student experience and resulting student satisfaction ratings

We are proud holders of the Athena Swan Bronze Award which recognises and celebrates good practice for employment in science, engineering and technology (SET) in higher education and research. The award reflects our commitment to the advancement and promotion of diversity and equality. We are actively seeking Silver and Gold awards.

<http://www.athenaswan.org.uk/html/athena-swan/>

Department of Computer Science

Computer Science is a dynamic department in the midst of rapid expansion in the scope of its research and teaching activities. In the Research Assessment Exercise of 2008, 95% of our activity was judged to be of international quality (with 65% being of international excellence or better, including 20% world leading). We have an ambitious plan of expansion that will consolidate our position as a leading computer science department in the UK over the next few years. The department currently consists of five Professors, one Reader, three Senior Lecturers, eleven Lecturers, and one Teaching Fellow. There are also a number of research associates and visitors.

Research in the Department contributes to eight broad themes: Algebraic and Categorical Structures and Methods; Algorithm Design, Analysis and Engineering; Computational Complexity of Algebraic Structures; Deduction, Rewriting and Transformation; Interaction Design and Evaluation of Socio-technical Systems; Models of Software Intensive Systems; Optimisation and Heuristics; and Software Evolution. These themes are represented (and linked) in several national and international research projects and networks. Within the University, there are links with the departments of Mathematics, Physics and Astronomy, Engineering, the School of Biological Sciences, and the School of Archaeology and Ancient History. We are also members of the university's Institute of Finance and DigitUL – the university's interdisciplinary group on the Digital Economy. More details on the research within the department are available at <http://www.cs.le.ac.uk/research>.

The Department is housed in a purpose-built building, which includes office space for post-doctoral researchers and PhD students, a seminar room and a staff reading room. There is an active PhD programme involving over 30 students, some of which are on project scholarships or graduate teaching assistantships. Several internal and external seminar series, graduate lectures and reading groups make for a dynamic research environment in which staff and students can fulfil their potential. Leicester is also an active participant in the Midlands Graduate School, which organises advanced postgraduate courses for PhD students in nearby universities in the Midlands, including Sheffield, Nottingham, Loughborough and Birmingham.

In addition to undergraduate teaching, the Department participates in a number of postgraduate programmes, including the MSc in Advanced Computational Methods, the MSc in Advanced Computer Science, the MSc in Advanced Distributed Systems, the MSc in Advanced Software Engineering, the MSc in Agile Software Engineering Techniques, the MSc in Software Engineering for Financial Services, the MSc in Web Applications and Services, the MSc in Geospatial Intelligence (with Geography), the MSc in Bioinformatics (with the School of Biological Sciences), the MSc in Financial Mathematics and Computation (with Mathematics) and the MSc in Mathematical Modelling and Scientific Computation (also with Mathematics)

Your Role

You will provide high-level research skills through personal expertise and contribution to the wider research of the Department, and supervision of undergraduate or taught postgraduate students.

Principal Accountabilities

In this role your principal accountabilities will be to:

Research

- Engage in personal and collaborative research resulting in significant contributions to papers in leading international journals and conference proceedings in computer science.
- Generate external funding through research grants, contracts, and other sources to support research programmes.
- Help develop the direction of research programmes that will enable the Department to attain its research goals.
- Develop and utilise research methodologies that enable significant advances in the associated research area.
- Supervise research students and provide advice and guidance to other members of the wider research team, both research staff and students in the context of a desk-based and lab-based environment.
- Attend major international and national conferences in the area of research and present research results in a regular basis, and to network and contribute to personal recognition and enhancing the reputation of the University and the wider research programme.

Teaching

- Give lectures, seminars, tutorials and other classes, as allocated by the Head of Department, in support of the required teaching obligations.
- Supervise project work by undergraduate and postgraduate students.
- Maintain a broad knowledge of up-to-date research and scholarship in relevant fields to ensure that teaching meets the standards expected within a research-led University.
- Undertake other academic duties (such as setting and marking coursework and examination papers, invigilation, participation in course reviews and pastoral support of students) required to sustain the delivery of high-quality teaching.
- Support and comply with the University and departmental teaching quality assurance standards and procedures, including the provision of such information as may be required by the Department or the University.

Administration and other activities

- Undertake such specific departmental roles and management functions as may be required by the Head of Department.
- Attend departmental meetings and participate in other committees and working groups within the department, the College and the University to which appointed or elected.
- Engage in continuous professional development, for example through participation in relevant staff development programmes.
- Undertake, subject to the agreement of the Head of Department and the University as appropriate, external commitments that reflect well upon and enhance the reputation of the University.
- Ensure compliance with health and safety requirements in all aspects of work

Qualifications, Knowledge and Experience Required

Essential

- A PhD (or shortly be expected to obtain a PhD) or equivalent in computer science or cognate area*
- Evidence of research achievements recognised internationally in terms of originality, significance and rigour, consistent with a computer science department that is aspiring to achieving the highest possible standards of international excellence*
- Evidence of ability to publish research results in leading peer-reviewed journals and conferences*
- Potential to engage in collaborative research with research groups in the UK or abroad*
- Ability to teach and supervise undergraduate and postgraduate students in software engineering*
- Background in the theoretical foundations of computer science*

Desirable

- Potential to engage in interdisciplinary research with other departments of the University*
- Potential to engage in collaborative research with industry*
- Experience in supervision of undergraduate or postgraduate students.
- Experience in organising seminars, tutorials or other research-related activities

Skills, Abilities and Competencies

Essential

- Proven ability or potential to generate external funding through research grants, contracts, and other sources to support research programmes*
- Proven ability or potential to initiate work independently as well as part of a team, both on research and teaching programmes*
- Proven ability or potential to teach undergraduate and postgraduate students in lectures, tutorials and seminars, and to supervise postgraduate students*
- Ability or potential to help develop curricula.
- Ability or potential to engage in outreach activities.
- Good written* and oral communication skills, along with presentation and training skills.
- Good interpersonal skills

(* Criteria to be used in shortlisting candidates for interview)

Informal Enquiries

Informal enquiries are welcome and should be made to the Head of Department on cshod@mcs.le.ac.uk.

Applications

For further information and to apply on-line, please visit our website: www.le.ac.uk/joinus

The closing date for this post is midnight on Sunday 05 June 2011

We anticipate that interviews will take place on 30 June and 01 July 2011

Candidates short-listed for interview will be contacted by the University. If you do not receive a communication from the University within 4 weeks of the closing date, please assume that your application has been unsuccessful.