CHAIR IN COMPUTER SCIENCE

Job Ref: 009080

Faculty: Science and Engineering, School of Electrical Engineering, Electronics and Computer Science, Department of Computer Science

Location: University Campus

Salary: Negotiable

Tenure: Permanent

Hours of work: Full-time

Presentation Date: 19 June 2018

Interview Date: 19 June 2018

Closing Date: 11 May 2018

Informal enquiries to Head of Department of Computer Science, Professor Kate Atkinson, email: K.M.Atkinson@liverpool.ac.uk
One post for a Chair in Computer Science is available within the Department of Computer Science with an important aspect of the role being academic involvement at senior level with the Virtual Engineering Centre (VEC). The VEC provides expertise in the development and integration of Virtual Engineering technologies, including advanced modelling, simulation and visualisation to meet industrial challenges. The University of Liverpool hosts one of the VEC’s labs on site with the main site being in Daresbury. The Chair will be based in the Department of Computer Science at the University of Liverpool, but is expected to contribute to the strengthening of links between the Department and the VEC, as well as conducting outstanding fundamental research, securing external funding, delivering high quality teaching and developing external impact.

We are seeking a candidate who could provide a leadership role in expanding the Department’s research activities in: security, high performance computing, natural language processing or robotics. However, we will consider candidates whose research is not in these specific areas but whose profile would enable strengthening of our current research activities aligning with the VEC and the development of our impact agenda. The Department has two main research sections that form its research focus: Algorithms and Artificial Intelligence, and within these there are seven more specialised research groups, covering: Algorithms, Complexity Theory and Optimisation; Argumentation and Knowledge Representation; Data Mining and Machine Learning; Economics and Computation; Networks and Distributed Computing; Robotics and Autonomous Systems; and, Verification.

The Department also plays a key role in various institution-wide initiatives at both the Faculty and the University levels, such as the new University-level research theme on the topic Digital that covers a breadth of interdisciplinary topics, with key focus areas being: autonomous systems, bioinformatics, consumer big data, genomics, high performance computing, materials science, mathematics for healthcare, nuclear science and technology, risk and uncertainty, and urban analytics.

Our infrastructure is supported through a variety of knowledge centres, with the key ones being: (i) The Virtual Engineering Centre (VEC), delivering innovative engineering solutions to industry. (ii) Sensor City, a Liverpool-based technical innovation centre and University Enterprise Zone. (iii) The Materials Innovation Factory (MIF), which houses a new research institute focussed on computer aided materials science and high-throughput automation to develop new approaches to materials science.

Appointment will be based on the academic quality or potential of the candidate. The School of EEECS is an Athena SWAN Bronze Award holder and we are working to create an inclusive environment that values a diverse workforce. We strongly encourage applications from groups under-represented within our workforce, in particular, women.

DUTIES

You will enter the Department as a member of academic staff, and as such the main duties will be:

- To undertake research activities contributing to one or more of the research areas specified above, and in particular to:
- Undertake research explorations and other related activities of world leading and internationally excellent quality.
- Lead research endeavours in your area of expertise.
- Apply for and obtain external research funding.
- Publish high quality research consistent with the above.
- Strengthen academic collaborations between the Virtual Engineering Centre and the Department.
- Contribute to the development of the Department’s research impact.
- Provide support to PhD students and junior research staff in their research activities, and
- Contribute to development of relevant research groups, themes and research strategies.

- To contribute to the teaching in the School to undergraduate and postgraduate levels as directed by the Head of Department.
- To undertake assessment and examination duties as required.
- To participate in the management of the Department, School, Faculty of Science and Engineering, and the University, and in so doing, to represent the best interests of students, the Department, School, the Faculty, and the University, consistent with the academic ethos of the employer.
- To undertake administrative roles as required.
- To be engaged in relevant health and safety procedures/processes, raising any concerns with the Department’s safety leads.

**Conditions of appointment**

Any appointment to this post will be subject to the University’s standard conditions of appointment. No person other than the Director of Human Resources has authority to notify a variation in these conditions. Any purported variation made by any other individual shall be void and not binding upon the University.
# Person Specification

<table>
<thead>
<tr>
<th>ESSENTIAL CRITERIA</th>
<th>DESIRABLE CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXPERIENCE</strong></td>
<td></td>
</tr>
<tr>
<td>1. Excellent track record of high-quality research in an area of Computer Science</td>
<td>Expertise in security, high performance computing, natural language processing or robotics</td>
</tr>
<tr>
<td>2. Experience of leading a successful research group</td>
<td>Preparation and delivery of learning and teaching resources in higher education</td>
</tr>
<tr>
<td>3. Track record of high quality peer reviewed grant income</td>
<td>Evidence of delivery of non-academic impact</td>
</tr>
<tr>
<td>4. Strategic fit to the direction of the Department and its links with the Virtual Engineering Centre</td>
<td>A track record of successful PhD supervision and mentoring others in research and teaching</td>
</tr>
<tr>
<td>5.</td>
<td>Experience of engagement with industry</td>
</tr>
<tr>
<td><strong>EDUCATION, QUALIFICATIONS AND TRAINING</strong></td>
<td></td>
</tr>
<tr>
<td>1. PhD in Computer Science or related subject</td>
<td>Teaching qualification</td>
</tr>
<tr>
<td><strong>SKILLS, GENERAL AND SPECIAL KNOWLEDGE</strong></td>
<td></td>
</tr>
<tr>
<td>1. Ability to deliver high quality research</td>
<td>Should be able to make an active contribution in a short time period</td>
</tr>
<tr>
<td>2. An understanding of the research impact agenda and ability to contribute to this</td>
<td></td>
</tr>
<tr>
<td>3. Evidence of teaching ability</td>
<td></td>
</tr>
<tr>
<td>4. Ability to develop research networks across and outside of the university</td>
<td></td>
</tr>
<tr>
<td>5. Excellent written and verbal communication</td>
<td></td>
</tr>
<tr>
<td>6. Experience in a leadership role</td>
<td></td>
</tr>
<tr>
<td><strong>PERSONAL ATTRIBUTES AND CIRCUMSTANCES</strong></td>
<td></td>
</tr>
<tr>
<td>1. Dependable and reliable</td>
<td>An ability to work with others in multi-disciplinary teams across the School and the University</td>
</tr>
<tr>
<td>2. Consistent ability to produce high quality and quantity of work</td>
<td></td>
</tr>
<tr>
<td>3. Enthusiasm for working with students</td>
<td></td>
</tr>
<tr>
<td>4. Ability to work with others</td>
<td></td>
</tr>
<tr>
<td>5. Ability and willingness to contribute to the administration, strategic development and environment of the department</td>
<td></td>
</tr>
</tbody>
</table>
The University of Liverpool is one of the UK’s leading research institutions with an annual turnover of £480 million, including £102 million for research. Ranked in the top 1% of higher education institutions worldwide, Liverpool is a member of the prestigious Russell Group of the UK’s leading research universities. The University has 33,000 students, 7,500 of whom travel from all over the world to study here, and 211,000 alumni in 171 countries. Its global focus has led the institution to establish a university in Suzhou near Shanghai, in partnership with Xi’an Jiaotong University, as well as a campus in London. The University is the largest provider of 100% online postgraduate degree courses in Europe with over 10,000 students studying for Liverpool degrees around the world.

As one of the top 25 UK universities targeted by global graduate employers, and 18th in the top universities in the UK for graduate employability our students enjoy high employability rates, with 88% of all of the University’s graduates in employment or further study six months after graduation. For undergraduate leavers this rises to 90% and to 95% for UK-based undergraduate leavers. The University is committed to continually improving the quality of its student experience, and, supported by a £600 million phased investment in our campus our approach has had a significant impact on the University’s student recruitment position in recent years.

Liverpool graduates have become pioneers in every field, with Nobel prize winners including: Sir Ronald Ross (1902; discovery of mode of spread of malaria), Professor Charles Glover Barkla (1917; discovery of the electromagnetic properties of x-rays), Professor Sir Charles Sherrington (1932; functional analysis of motor unit in a muscle), Professor Sir James Chadwick (1936; discovery of the neutron), Professor Sir Robert Robinson (1947; investigation into alkaloids and other plant products), Professor Har Gobind Khorana (1968; genetic code of protein synthesis), Professor Rodney Robert Porter (1972; structure of antibodies); Professor Sir Joseph Rotblat (1995; work to diminish the role of nuclear arms in international politics) and Ronald H. Coase – awarded the Nobel Prize in Economics 1991 for his research into the significance of transaction costs and property rights for the institutional structure and functioning of the economy.

Over 6,000 talented staff help create the inspiring learning environment our students thrive in, it’s no wonder given over 81% of our research is seen as ‘world leading’ and ‘internationally excellent’. What’s more, we provide a supportive and high-quality environment for our people across the University and a range of initiatives ensure that there are equal opportunities for all, including our partnership with Athena SWAN which celebrates good employment practice for women working in science, technology, engineering and medicine.

Life Changing, World Shaping
As the seventh largest city in the UK, Liverpool is diverse, energetic and exciting. Built on an illustrious heritage that stretches back 800 years, Liverpool has a global reputation for sport, music, architecture and culture.

Today the city is enjoying a resurgence, driven by its designation as European Capital of Culture in 2008. Record levels of inward investment have transformed the city.

The regeneration of Liverpool City Centre has been spearheaded by the £1 billion Liverpool One project - one of Europe's biggest shopping/mixed-use schemes, which has positioned the city as one of the UK's top five retail destinations.

The successful European Capital of Culture experience in 2008 has been followed by the designation of Liverpool's stunning waterfront as a UNESCO World Heritage Site and massive investment in new cultural and leisure attractions, including Albert Dock. Liverpool is a major cultural hub in the UK. In fact, there are more museums, theatres, and galleries in Merseyside than in any other region outside London.

Liverpool Philharmonic Hall, home to the Royal Liverpool Philharmonic Orchestra, one of Europe's leading orchestras, is the classical counterpoint to the city's many contemporary music venues and the visually stunning Echo Arena.

Home to two of Europe's most famous football teams – Liverpool FC and Everton FC– the city's achievements in sport are internationally recognised. Aintree Racecourse, home of the Grand National, and two internationally acclaimed golf courses at Royal Birkdale & Royal Liverpool in Hoylake are on the doorstep.

Compared to many other UK cities Liverpool has less congestion, is closer to countryside, has more parks, has more cultural and recreational opportunities, better schools and more accessible transport. Liverpool is uniquely situated 1 hour from Manchester, 3 hours from London by train and the city's Liverpool John Lennon Airport (one of the Europe's fastest growing airports) connects to more than 650 world wide destinations.

For more information on the city of Liverpool, visit: www.itsliverpool.com
HOW TO APPLY

To apply for a Vacancy at the University you must register on the University of Liverpool E-Recruitment site, https://recruit.liverpool.ac.uk

If you have any questions relating to applying for a Vacancy please contact the Recruitment Team by email – Jobs@liverpool.ac.uk

ACKNOWLEDGING YOUR APPLICATION

Once you have submitted your application you will receive an automatic acknowledgement. Your application can be viewed at any time in the Application History section of your E-Recruitment Account.

SHORTLISTING AND INTERVIEWING

Shortlisting and interview arrangements are the responsibility of the recruiting Department. Please contact Lisa Smit on 0151 795 4233, email: lmcs@liverpool.ac.uk for enquiries after the closing date.

OUTCOME OF APPLICATIONS

Vacancies at the University often attract a large number of candidates and it is not always possible to respond individually to every application. If you have not heard from the recruiting department by early June 2018 please take it that your application has not been successful.
Asylum & Immigration
The University will comply with the Immigration, Asylum and Nationality Act 2006, which requires all employees to provide documentary evidence of their legal right to work in this country prior to commencing employment. Please be aware that you will be required to bring your passport (and visa if applicable) to interview so that it can be copied and verified by a member of the Selection Panel. For posts requiring a recognised degree level or equivalent qualification, and where there is no suitable UK or European Economic Area candidate, the University will take the necessary steps to secure UK Border Agency permission for a foreign national to take up employment. Should a candidate require a Certificate of Sponsorship in order to take up a post they will need to meet the UK Border Agency Tier 2 Points Based Criteria. A self assessment tool can be found on the UK Border Agency website at: www.ukba.homeoffice.gov.uk/pointscalculator

A candidate may also be required to undertake an English Language test prior to commencing work at the University. Details of Home Office approved tests can be found at: https://www.gov.uk/government/publications/guidance-on-applying-for-uk-visa-approved-english-language-tests

Further information on the eligibility criteria for Certificates of Sponsorship can be found at: www.ukba.homeoffice.gov.uk/employers/points

National Insurance Number
All employed individuals must possess a UK National Insurance Number. Further information and how to apply for a unique National Insurance Number can be found at: https://www.gov.uk/apply-national-insurance-number

Diversity and Equality
The University of Liverpool is committed to diversity and equality of opportunity. All employees and applicants for jobs will be considered on their abilities and will not be discriminated against on the grounds of age, caring responsibilities, colour, disability, employment status, gender, gender identity, marital status, nationality, race or ethnic origin, religion or belief, sexual orientation, socio-economic status or any other irrelevant distinction. Training is available to support career progression within the University.

Two Ticks Disability: Guaranteed Interview Scheme (GIS)
The University of Liverpool is committed to the employment of disabled people, and as part of our commitment, we guarantee to interview all disabled applicants who meet the essential criteria for a post and consider them on their abilities. If your disability prevents you completing the application form by the specified closing date, or when the vacancy closes early, due to a high volume of applications, please call the Recruitment Team to discuss alternative arrangements. http://www.liv.ac.uk/working/jobvacancies/guaranteedinterviewscheme/

Volition Programme
The University of Liverpool supports the Liverpool Anglican Cathedral Volition Programme. Applicants who have successfully completed the programme and meet the essential criteria for the post will be offered a guaranteed interview. Please note that individuals will be confirmed through the Volition Programme directly. http://www.liv.ac.uk/working/jobvacancies/volitionprogramme/

GiveGetGo Volunteer Programme
Applicants who have successfully completed the GiveGetGo Volunteer Programme at the University in Partnership with the Transform Lives Company who meet the essential criteria for the post will be offered a guaranteed interview. Please note that individuals will be confirmed through the GiveGetGo Volunteer Programme directly. https://www.liverpool.ac.uk/working/jobvacancies/givegetgo/

Accessibility
If you require copies of documentation in alternative formats, for example, large print or Braille, please contact jobs@liverpool.ac.uk or telephone 0151 794 6771.

If you have any other requirements which will help you access the application or interview process or employment opportunities at the University of Liverpool, please let us know by contacting jobs@liverpool.ac.uk or telephone 0151 794 6771.

Pension
The Occupational Pension Scheme associated with this appointment is the Universities Superannuation Scheme (USS). You are encouraged to familiarise yourself with the full particulars of the scheme which can be found here