



UNIVERSITY OF LIVERPOOL



2 LECTURERS/SENIOR LECTURERS IN GEOMECHANICS

Job Ref: 004484



Faculty: Science and Engineering, School of Engineering

Location: University Campus

Grade: 7 – 9 Depending on experience

Salary: Depending on qualifications and experience

Range: £32,958 - £38,183 pa (Grade 7)
£39,324 - £49,772 pa (Grade 8)
£51,260 - £63,009 pa (Grade 9)

Tenure: Permanent

Hours of work: Full-time

Closing Date: 3 February 2017

Interview Date: To be confirmed

Informal enquiries to Dr Steve Jones on 0151 794 5228, email: swjones@liverpool.ac.uk



The Post

THE SCHOOL OF ENGINEERING

The School of Engineering is one of four schools within the Faculty of Science and Engineering, led by the Executive Pro Vice Chancellor Ken Badcock. The School has benefitted from substantial investment in the past decade, leaving it well placed to build on its current healthy position. In 2005, the last of several departmental mergers was completed to form what constitutes the current School, integrating the disciplines of aerospace, civil, materials science and mechanical engineering. The disciplines of industrial design and architectural engineering are the newest additions to the School, commencing in 2014 and 2016 respectively. From 2005-2008, the School infrastructure underwent a £36 million refurbishment, creating outstanding facilities for teaching and research. At that time the degree programmes were refreshed to emphasise new 'active learning' approaches to teaching and learning, professional skills and industrial engagement, reinforced through membership of the international CDIO consortium (cdio.org).

The School currently has over 60 academic staff, around 1200 undergraduate students, 80 PGT students and 120 PGR students. Professor Ahmed Elsheikh is the Head of the School of Engineering, which as from January 2017 will re-organised into two Departments and four Divisions:

- Department of Civil Engineering and Industrial Design (comprising the Division of Civil Engineering and the Division of Industrial Design)
- Department of Mechanical, Aerospace and Materials Engineering (comprising the Division of Mechanical and Materials Engineering and the Division of Aerospace)

The School Management Committee consists of the Head of School, the two Heads of Department, the Chair of the Board of Studies, the Director of Research and the School Manager and is responsible for resource decisions in the School. Within the new School structure, research will be coordinated and reported at School level while teaching coordination and line management will be delegated to the new Departments.

The University of Liverpool is a member of the Athena SWAN Charter to promote women in Science, Engineering and Technology (SET) and holds a University Bronze Athena SWAN award. The School of Engineering has recently been awarded its own Bronze Athena SWAN award. The School of Engineering is committed to providing organisational and cultural practices that promote gender equality in SET and create a better working environment for both men and women. Job applications are particularly welcome from women candidates, who are under-represented in academic posts in the School.

THE DEPARTMENT OF CIVIL ENGINEERING AND INDUSTRIAL DESIGN

The new Department of Civil Engineering and Industrial Design has been formed following a recent restructuring of the School from its previous centres of research. It comprises the long-established discipline of Civil Engineering along with the relatively new discipline of Industrial Design. These two disciplines will be organised into two Divisions with distinct external profiles, which will allow each to develop its own identity playing to its research and teaching strengths, while internally facilitating effective management of people and resources. Both Divisions will be co-located in the Brodie Tower which is currently benefiting from an ongoing facilities investment programme, although research and teaching activities are integrated across the School of Engineering estate. The School has an aspiration to grow this new Department in terms of both staff and research areas.



The Department offers undergraduate and postgraduate degree programmes in Architectural Engineering, Civil Engineering and Industrial Design. Both Civil Engineering and Industrial Design currently host a significant number of undergraduate Chinese students from XJTLU completing their studies on a 2+2 basis. The integration of Civil Engineering and Industrial Design brings together two of the most dynamic and growing linkages with XJTLU, creating a major focal point for the Liverpool-China relationship. A further development is the creation of a new postgraduate degree programme in Industrial Design at the University of Liverpool's London campus.

The research in the Department covers many engineering and design disciplines in fields including: blast and impact, coastal sediment movement, tidal energy, flooding and urban drainage, environmental pollution, geomechanics, sustainable construction materials, construction management, user experience design, digital modelling and simulation, design attitudes and issues, biomaterials and biomechanics, and nuclear engineering. The School scored highly in the national Research Excellence Framework (REF) in 2014. The Department works closely with the Liverpool Institute of Risk and Uncertainty, the School of Environmental Sciences and the School of Architecture.

The Department maintains strong industrial links through a well-established Industrial Liaison Committee, comprising local and regional industrial partners. This provides valuable industrial input into teaching, research and the mentoring of our undergraduate MEng students.

LIVERPOOL INSTITUTE FOR RISK & UNCERTAINTY

The Liverpool Institute for Risk & Uncertainty (LIRU) was founded in 2012 at the University of Liverpool as a multi-disciplinary, large-scale Research Institute. It combines expertise in quantifying, managing and mitigating risk and uncertainty from over 10 disciplines across the University including architecture, engineering, environmental sciences, institute for infection and global health, financial and actuarial mathematics, computer science, electrical engineering, economics and finance, management, social sciences, psychology and law. The focus is on the comprehensive understanding of uncertainties and associated risks as key issues in the performance assessment of complex systems, and in the development of proper mitigation strategies. With strong ties to industry, applications are pursued in a wide range of areas such as building design, climate change analysis, reliability engineering, software reliability, material science, financial modelling, socio-political harm reduction and critical incident management.

SPECIFICS OF THE ROLE

The posts are permanent, commencing 1 May 2017 or as soon as possible thereafter. They will be allocated to the new Department of Civil Engineering and Industrial Design within the School of Engineering but it is anticipated that close research collaborations will be created with both the School of Environmental Sciences and the Liverpool Institute for Risk & Uncertainty. **Appointments at the higher grades will be dependent on a substantial, demonstrable record of academic attainment.**

Applications are welcome from those with a strong background in geotechnical engineering and risk associated with groundworks. Your interest and experience should include geotechnical aspects in the intersection to environmental sciences, specifically related to geophysics but also to hydrology and stability problems (slope stability / landslides) in association with natural hazards such as floods or earthquakes. Skills and experience in geophysical and/or hydrological modelling and interest in CFD and/or non-linear modelling are desirable. A strong enthusiasm for cross-disciplinary research will enable you to collaborate closely with colleagues from other disciplines.



Connectivity to environmental sciences is particularly of interest to address problems such as climate change and associated natural hazards. You will already have research experience in an academic environment, including the publication of influential papers in leading academic journals. A record of attracting external research funding from a range of sources (or the potential to do so) is expected.

Your research enthusiasm should be accompanied by an interest in lecturing and teaching. Teaching commitments can be expected at both undergraduate and postgraduate level with contributions to the degree programmes offered by the School of Engineering. Administration duties and other tasks within the normal requirements of the lectureship role are also part of the post.

Applications will be considered by a Selection Committee in January 2017 and shortlisted candidates will subsequently be invited to campus visits, which will take place in March/April 2017 (the actual date will depend on availability of shortlisted candidates and the members of the Selection Panel). As part of the interview process, applicants will be invited to give a presentation, meet with a range of faculty members, and see the campus facilities. Formal interviews will normally take place on the following day, when selection of the preferred candidate will take place.

Probation

This is a permanent post, but appointment will normally be for a probationary period of three years. Confirmation in appointment will be made at the end of this period provided that the Review Committee for the Faculty is satisfied that the appointee has fulfilled the criteria for confirmation. These criteria are:

- that the appointee has applied himself or herself to research and the advancement of knowledge as shown by work completed or in an active state of preparation,
- that he or she has satisfactorily undertaken such teaching and taken such part in University examinations as have been assigned, and
- that he or she has performed such administrative duties within the department as have been assigned

The satisfactory undertaking of professional duties associated with the appointment will also be taken into account.

If the appointee has been confirmed in appointment at this University or another equivalent UK institution, no further probationary period would be required in this post. Relevant experience at this or another institution, without confirmation in appointment, may be taken into account when determining the length of the probationary period.

The University's Learning and Teaching Strategy requires that all new probationary academic staff attend an Induction event, and undertake and complete the Certificate in Professional Studies in Learning and Teaching in Higher Education. Further details of the CPS can be obtained from Education Development within the Centre for Life Long Learning. Individuals may be exempted from all or part of the CPS, depending upon their qualifications and experience.



Person Specification for Senior Lecturer Grade 9

ESSENTIAL CRITERIA		DESIRABLE CRITERIA
(Identified from – Application form, CV, Supporting Statement, Interview, References)		
EXPERIENCE		
1.	Experimental, theoretical or numerical research in geotechnical engineering	Substantial teaching experience in engineering or in a relevant physical or mathematical science discipline
2.	Research involving writing and publication of research papers rated as world-leading	Experience in foundation design and/or groundworks
3.	Experience of winning substantial funding to sustain an independent research programme	Postdoctoral research experience
4.		Cross-disciplinary research experience in uncertainty quantification and environmental risk assessment
EDUCATION, QUALIFICATIONS AND TRAINING		
1.	PhD in engineering or a relevant physical or mathematical science discipline	First degree in engineering or a relevant physical or mathematical science discipline
2.	Research record in geotechnical engineering related to geophysics, hydrology and stability problems (slope stability/landslides) in association with natural hazards	Holding chartered status of a relevant professional institution, with demonstrable career development
3.	Experience in geophysical and/or hydrological modelling and interest in non-linear modelling	
SKILLS, GENERAL AND SPECIAL KNOWLEDGE		
1.	Good experimental, mathematical and numerical research skills	Experience of, or potential for, academic management at a senior level
2.	Fluency in English	
3.	Excellent interpersonal and communication skills	
PERSONAL ATTRIBUTES AND CIRCUMSTANCES		
1.	Enthusiastic, dedicated, conscientious, open-minded, approachable	
2.	Strong enthusiasm for cross-disciplinary research to collaborate closely with colleagues from other disciplines	



Person Specification for Lecturer Grade 8

ESSENTIAL CRITERIA

DESIRABLE CRITERIA

(Identified from – Application form, CV, Supporting Statement, Interview, References)

EXPERIENCE

1.	Experimental, theoretical or numerical research in geotechnical engineering	Established teaching experience in engineering or in a relevant physical or mathematical science discipline.
2.	Research involving writing and publication of research papers rated as internationally excellent or above.	Experience in foundation design and/or groundworks
3.	Experience of winning funding to sustain an independent research programme	Postdoctoral research experience
4.		Cross-disciplinary research experience in uncertainty quantification and environmental risk assessment

EDUCATION, QUALIFICATIONS AND TRAINING

1.	PhD in engineering or a relevant physical or mathematical science discipline	First degree in engineering or a relevant physical or mathematical science discipline
2.	Research record in geotechnical engineering related to geophysics, hydrology and stability problems (slope stability/landslides) in association with natural hazards	Holding chartered status of a relevant professional institution
3.	Experience in geophysical and/or hydrological modelling and interest in non-linear modelling	

SKILLS, GENERAL AND SPECIAL KNOWLEDGE

1.	Good experimental, mathematical and numerical research skills	Experience of academic administrative responsibilities
2.	Fluency in English	
3.	Excellent interpersonal and communication skills	

PERSONAL ATTRIBUTES AND CIRCUMSTANCES

1.	Enthusiastic, dedicated, conscientious, open-minded, approachable	
2.	Strong enthusiasm for cross-disciplinary research to collaborate closely with colleagues from other disciplines	



Person Specification for Lecturer Grade 7

ESSENTIAL CRITERIA

DESIRABLE CRITERIA

(Identified from – Application form, CV, Supporting Statement, Interview, References)

EXPERIENCE

1.	Experimental, theoretical or numerical research in geotechnical engineering	Some teaching experience in engineering or in a relevant physical or mathematical science discipline.
2.	Research involving writing and publication of research papers	Experience in foundation design and/or groundworks
3.	Potential for winning funding to sustain an independent research programme	Postdoctoral research experience
4.		Cross-disciplinary research experience in uncertainty quantification and environmental risk assessment

EDUCATION, QUALIFICATIONS AND TRAINING

1.	PhD in engineering or a relevant physical or mathematical science discipline	First degree in engineering or a relevant physical or mathematical science discipline
2.	Research record in geotechnical engineering related to geophysics, hydrology and stability problems (slope stability/landslides) in association with natural hazards	Holding or seeking chartered status of a relevant professional institution
3.	Experience in geophysical and/or hydrological modelling and interest in non-linear modelling	

SKILLS, GENERAL AND SPECIAL KNOWLEDGE

1.	Good experimental, mathematical and numerical research skills	
2.	Fluency in English	
3.	Excellent interpersonal and communication skills	

PERSONAL ATTRIBUTES AND CIRCUMSTANCES

1.	Enthusiastic, dedicated, conscientious, open-minded, approachable	
2.	Strong enthusiasm for cross-disciplinary research to collaborate closely with colleagues from other disciplines	



A World Class University



The University of Liverpool is one of the UK's leading research institutions with an annual turnover of £480 million, including £133 million for research. Liverpool is ranked in the top 1% of higher education institutions worldwide and is a member of the prestigious Russell Group, comprising the leading research universities in the UK.

As an international institution, we have 31,000 students and 195,000 alumni in 200 countries. Our global focus has led us to establish a university in the World Heritage city of Suzhou near Shanghai, in partnership with Xi'an Jiaotong University – a top 10 university in China. Liverpool is popular with students from all over the world, with 7,700 international students from all over the world studying at the University. We are also the largest provider of 100% online postgraduate degree courses in Europe with some 10,000 students studying for University of Liverpool degrees around the world.

Associated with no fewer than nine Nobel Laureates, we are recognised for our high-quality teaching and research. In the UK Government's most recent research assessment exercise, a total of 81% of the University's research staff were ranked in the highest categories of 4* (world-leading) and 3* (internationally excellent) for their research.

Addressing some of the world's toughest challenges, our research is helping to transform lives. Here you can work with us to conduct research that has a positive impact on people and the planet, to share ideas with peers, with business and beyond, to further widen your world view within our international network of academic partners and to prepare to be a true global citizen. Here at the University, we can help you to make a real difference to the wider world.

The University continues to strengthen key aspects of the student experience, investing £600 million in its teaching, research and residential estate over a 10-year period including £250 million in high quality accommodation and £350 million in the city centre campus and at the Veterinary Science site at Leahurst on the Wirral.

Life Changing, World Shaping



The City of Liverpool



As the fourth 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.

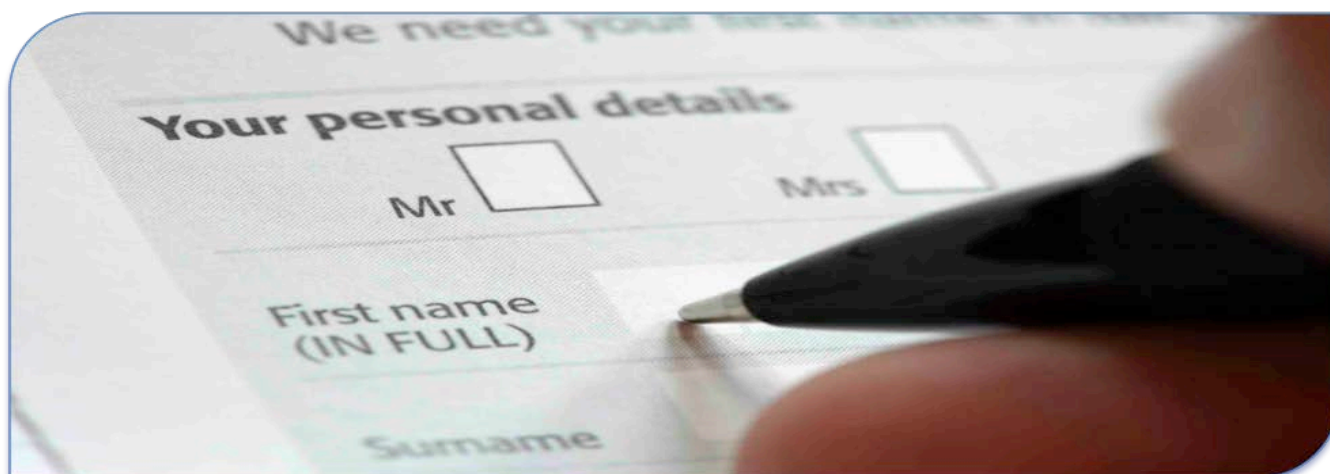
Home to two of Europe's most famous football teams – Liverpool FC and Everton FC– the city's achievements in sport are internationally recognised. Aintree Racecourse, home of the Grand National, and two internationally acclaimed golf courses at Royal Birkdale & Royal Liverpool in Hoylake are on the doorstep.

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



Application Process



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 **Dr John Myerscough, School Manager** on 0151 794 4885, email: jjm@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 March 2017** please take it that your application has not been successful.



General Information

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](#)

