RESEARCH ENGINEER IN SEISMIC SAFETY OF SUSPENDED CEILINGS (KTP ASSOCIATE) FIXED-TERM FOR 30 MONTHS
Job Ref: REQ17054

As part of the University’s ongoing commitment to redeployment, please note that this vacancy may be withdrawn at any stage of the recruitment process if a suitable redeployee is identified.

Company summary
SAS International is a market leading, internationally operative British manufacturer of interior building products. On-going investment in modern manufacturing facilities and processes ensures we provide value-engineered solutions across the built environment.

We are solution-led, driven by delivering quality, innovation and maximum value to an increasingly demanding specification market. The foundation principles upon which we have built our success are: Service, Quality, Innovation and Dependability.

Continuous product development is a core part of the Company’s vision. The global headquarter is in the UK, with sales offices located in Dubai and Sydney. Additional operations are also located in Dublin, Saudi Arabia, Melbourne, Doha, Hong Kong and Moscow.

School summary
The School of Civil and Building Engineering (CBE) is one of the largest of its type in the UK. The school is a world leading centre for transdisciplinary research in Civil Infrastructure Engineering, Transport and Water and Waste Management. Many of their research outputs have been created for, and in partnership with, industrial collaborators and this has ensured demonstrable impacts on policy and practice worldwide.

Job Description

Job Grade: Other

Job Purpose
The successful candidate will work on a Knowledge Transfer Partnership (KTP) project to support SAS International to design and manufacture novel solutions for earthquake-proof ceilings. The project aims to demonstrate and quantify the seismic performance of SAS ceilings with a combination of experimental and computational methods at the forefront of research.
The successful candidate will be based at SAS International (Reading)

The KTP associate will:
- Undertake a literature review of the current state of the art in earthquake engineering, with special emphasis on the seismic performance of building components
- Design computational models and governing equations for the seismic analysis of suspended ceilings, considering the dynamic interaction with the primary building structure
- Design and set up a test rig in order to conduct experimentation on ceilings
- Develop industry advice documents for use by architects and specifiers on the performance of ceilings in seismic zones
- Develop material for a CPD course to be run by SAS International and the School of CBE

Job Duties
- Carry out the KTP project tasks and deliver the outcomes as outlined in the project plan
- Manage the project and disseminate the findings to the project team
- Undertake KTP management training, as well as other courses as deemed necessary
- Write Research & Development (R&D) reports, and present these at the Local Management Committee (LMC) meetings, as well as at national and international conferences and symposia with other members of the project team
- Prepare research papers for publication in prestigious scientific journals, in line with the expected scholarly activities of the University Research Staff, but in accordance to the commercial sensitivity of collaborating company
- Travel to Company’s clientele and to various other locations within the UK, and possibly overseas, as required
- To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post

Points To Note

The purpose of this job description is to indicate the general level of duties and responsibility of the post. The detailed duties may vary from time to time without changing the general character or level of responsibility entailed.

A KTP project is a three-way partnership between a business, an academic institution and a graduate. The academic institution employs the recently-qualified graduate who works at the company. The graduate, known as the ‘associate’, brings new skills and knowledge to the business.

Special Conditions

All staff have a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff are therefore required to adhere to the University’s Health, Safety and Environmental Policy & Procedures.

All staff should hold a duty and commitment to observing the University’s Equality & Diversity policy and procedures at all times. Duties must be carried out in accordance with relevant Equality & Diversity legislation and University policies/procedures.

Successful completion of probation will be dependent on attendance at the University’s mandatory courses which include Respecting Diversity and, where appropriate, Recruitment and Selection.

Organisational Responsibility

Reports to the KTP academic supervisor
Person Specification

Your application will be reviewed against the essential and desirable criteria listed below. Applicants are strongly advised to explicitly state and evidence how they meet each of the essential (and desirable) criteria in their application. Stages of assessment are as follows:

1 – Application
2 – Test/Assessment Centre/Presentation
3 – Interview

Essential Criteria

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<th>Area</th>
<th>Criteria</th>
<th>Stage</th>
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<td>Experience</td>
<td>Experience/understanding of structural dynamics (e.g. through academic courses)</td>
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<td>Experience in the use of CAD (AutoCAD or Inventor) and finite element (or structural analysis) packages (such as Abaqus and SAP2000)</td>
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<td>Experience in the use of MatLab or Mathematica (or programming languages)</td>
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<td>Skills and abilities</td>
<td>Excellent team-working skills</td>
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<td>Excellent communication skills</td>
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<td>Good research skills and ability to handle data</td>
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<td>Good computer skills including Word processing, spreadsheets, databases and presentation software</td>
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<td>Training</td>
<td>Willingness to undertake the KTP mandatory training modules, plus other training as required</td>
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<td>Qualifications</td>
<td>MSc or MEng in Civil/Structural Engineering (minimum 2.1 or equivalent)</td>
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<td>Other</td>
<td>To observe the University Equal Opportunities policies at all times.</td>
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<td>Willingness to travel between SAS International’s sites (Reading, Birmingham and Wales) and the University</td>
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Desirable Criteria

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<td>Experience</td>
<td>Experience in vibration testing (e.g. through a final-year research project or dissertation)</td>
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<td>Experience in the construction industry (any personal practical construction experience would be beneficial)</td>
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<td>Experience or knowledge of metal cutting and forming manufacture methods, particularly with thin gauge steel and aluminium</td>
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<td>Qualifications</td>
<td>Licensed to drive in the UK</td>
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<td>Other</td>
<td>Flexibility in working conditions and hours</td>
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Conditions of Service

The position is full time and fixed term for 30 months. Salary will be between £25,000 and £30,000 per annum, at a starting salary to be confirmed on offer of appointment. A generous training budget of £5,000 will be available for the successful candidate.
The appointment will be subject to the University’s normal Terms and Conditions of Employment for Academic and Related staff/Operational and Administrative staff, details of which can be found here.

We strive to create a culture that supports equality and celebrates diversity throughout the campus. The University holds a Bronze Athena SWAN award which recognises the importance of support for women at all stages of their academic career. For further information on Athena SWAN see http://www.lboro.ac.uk/services/hr/athena-swan/

Informal Enquiries

Informal enquiries should be made to Alessandro Palmeri, Leader of the Structures and Materials group by email at A.Palmeri@lboro.ac.uk or Matt Harrison, Product Development Engineer (SAS International) by email at maharrison@sasint.co.uk.

Applications

Please note: Previous KTP Associates are not eligible to apply for this vacancy

The closing date for receipt of applications is 26 February 2017. Interviews will be held on 9 March 2017.