

**UNIVERSITY OF LINCOLN
JOB DESCRIPTION**

JOB TITLE	Structural/Mechanical Systems Engineer – KTP Associate				
DEPARTMENT	Research and Enterprise				
LOCATION	Brayford				
JOB NUMBER	EL1138	GRADE	£24,000 - £27,000 depending on experience	DATE	November 2017
REPORTS TO	Director of Research – Architecture and the Built Environment				

CONTEXT

The post has been created as a result of an exciting and innovative Knowledge Transfer Partnership (<https://www.gov.uk/guidance/knowledge-transfer-partnerships-what-they-are-and-how-to-apply>) between Floor & Wall Ltd (FWL) (www.floorandwallltd.com) and the School of Architecture and the Built Environment, and in collaboration with School of Engineering at the University of Lincoln (www.lincoln.ac.uk).

Floor & Wall Ltd specialises in the installation of specialised coating systems to exposed / exterior surfaces. They operate nationwide and address the needs of many market sectors.

We are looking to recruit an engineer (the Associate) to undertake and manage this 24 month Knowledge Transfer Partnership (KTP) project. The aim is to research, develop and commission a light weight, portable structure where specialist-coating operations can take place during inclement conditions. Candidates with an undergraduate or Masters degree in structural, mechanical or civil engineering, architecture or architectural technology, and with appropriate work-based experience, will be sought. Candidates possessing a HND qualification along with substantial work-based experience, or equivalent, will also be considered. Experience with materials technology, structural expertise, high-performing low energy structures, and an appreciation of energy harvesting/climate control technologies, will be advantageous. Building simulation, computer modelling skills and experience of Computer Aided Design, will be highly desirable.

The KTP Associate will be employed by the University of Lincoln for 2 years but will be based at the FWL site in Scunthorpe, and subject to its employment practices and conditions of work. The successful candidate will be supervised both by FWL and academics from School of Architecture and Built Environment, and the School of Engineering at the University of Lincoln.

JOB PURPOSE

The successful candidate will research and develop appropriate technologies for the realisation of a lightweight portable structure to provide a climate-controlled environment for the installation of specialist coating systems to exposed exterior surfaces when subject to undesirable environmental conditions.

A key part of the job is to continually review relevant technologies and appraise their relative merits for the application sector. The project will entail a significant degree of modelling, design, experimental activity and trialling of prospective technological solutions, lead by the Associate, to ultimately realise the required climate-controlled enclosure.

Periodic reporting to region KTP representatives on the progress of the project will be required.

Taking a lead project management role and being the primary liaison between the University of Lincoln and FWL will be part of the Associate's duties.

KEY RESPONSIBILITIES

Literature Surveys
To undertake literature surveys and other investigations of the state-of-the-art in the field and to prepare reports as required.
Research
<p>To perform specified research with advice from the supervisory team, to generate original knowledge, contribute to decisions about research direction, and to prepare reports on results. The research will challenge current structural systems and their mechanical provisions to meet the specific requirements of the Company.</p> <p>The Associate will plan their own day-to-day research activity within the context of the required research programme, exhibiting a high degree of autonomy; creation of project plan to capture key milestones and deliverables whilst delivering improvements throughout the duration of the study. Identifying business benefits; benchmark and measure current performance; and classifying how benefits will be implemented, will be undertaken.</p> <p>Regular research updates, including internal reports and presentations to FWL and academics at the University, will be given.</p> <p>Where relevant, contributing to the production of papers and other publications, and preparation for, and presentation at, international research conferences, will be expected.</p>
Liaison and Networking
<p>The Associate will liaise with technical staff at FWL and the University for developing and testing prototypes of the Climate Controlled Structure. The Associate will develop and maintain positive and effective working relationships; this will include liaison with personnel in other organisations including customers, sponsors and clients.</p> <p>Where appropriate, participate in internal research activities, including seminars, research meetings and continuous professional development activities.</p> <p>The Associate must adhere to confidentiality constraints of the company (FWL) and University.</p>

In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.

ADDITIONAL INFORMATION

Scope and dimensions of the role
<p>The post holder will:</p> <p>Deliver the work as set out in the 2 year work plan, along with attending development courses, conferences and training events that are deemed suitable for the project's delivery.</p>

Key working relationships/networks	
Internal	External
<ul style="list-style-type: none"> • Other in-house technical staff, marketing staff, and sales staff • Lead Academic • Academic Supervisor • Departmental Managers • Finance Departments 	<ul style="list-style-type: none"> • External clients, i.e. FWL customers and/or their representatives • University research and support staff and undergraduate and postgraduate students • Other KTP Associates

**UNIVERSITY OF LINCOLN
PERSON SPECIFICATION**

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Selection Criteria	Essential (E) or Desirable (D)	Where Evidenced Application (A) Interview (I) Presentation (P) References (R)
Qualifications:		
Undergraduate degree in structural, mechanical or civil engineering, architecture, architectural technology, or related disciplines	E	A, I
A Master degree in structural, mechanical or civil engineering, architecture, architectural technology, or related disciplines	D	A, I
Experience:		
Experience in building simulation analysis	E	A, I, P
Computer Aided Design	E	A, I, P
Professional experience	D	A, I, P
Skills and Knowledge:		
Strong communications skills (both written and oral)	E	A, I
Ability to work confidently with a range of people, both internally and externally	E	A, I
Competencies and Personal Attributes:		
Ability to manage and lead a project with multiple stakeholders	E	A, I, P
Professional and diplomatic approach to work at all times	E	A, I
Ability to learn and work in new technologies in a short time span	E	A, I
Enthusiastic about R&D	E	I
Business Requirements:		
Flexible in working hours – to accommodate travel and weekend working	E	A, I

Essential Requirements are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

Author	BS	HRBA	NW
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