Job Summary

Job Title: Research Associate
Grade: 7
Salary: £34,189 to £39,609 per annum
Department: Engineering
Hours/Contract: Full time fixed term contract to 30 September 2020
Job Reference: 613

Role Purpose
The post holder will lead on the development of materials, coatings and electrochemical monitoring techniques within the remit of the InnovateUK project ‘FlexiBat’. The post holder is expected to provide high-level support to develop the coatings, materials and corrosion functionalities. One of the main task will involve selection of electrode and electrolyte material, and performance evaluation of batteries. To maintain effective communication with the project partners and display sustained productivity in respect of research publications at the highest peer-reviewed level together with a clearly established track record of publication covering corrosion, metallurgy, materials science and engineering.

<table>
<thead>
<tr>
<th>Principal Responsibilities</th>
<th>% Time</th>
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<tbody>
<tr>
<td><strong>Research</strong></td>
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<tr>
<td>To carry out activities of the research project (FlexiBat) defined by research supervisors at Leicester University.</td>
<td>70%</td>
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<tr>
<td>To assist in the implementation of the research project (FlexiBat)</td>
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<td>To interact with the project partners and carry out the projects deliverables.</td>
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<td>To publish research output in high impact, peer-reviewed scientific journals, and to give presentations at relevant workshops and conferences;</td>
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<tr>
<td>To represent outputs from the project at internal and external meetings, conferences and events</td>
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<tr>
<td>To foster and encourage collaborative research projects between the College of Science and Engineering at the University of Leicester and TWI in the general area of welding, materials and manufacturing</td>
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<tr>
<td>To enhance the reputation of UoL and TWI in a core technical field by individual international reputation, external awareness and innovation, ensuring technology advancement. To promote pro-actively the standing of UoL and TWI in the relevant technology area</td>
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<tr>
<td>To interact with, and supervise PhD students undertaking their research at the National Structural Integrity Research Centre (NSIRC) and contribute to the research strands of NSIRC so as to meet its mission.</td>
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<tr>
<td><strong>Administration</strong></td>
<td></td>
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<tr>
<td>To assist the Supervisor in developing the strategic plan for the research group</td>
<td>30%</td>
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<tr>
<td>To assist the MatIC Director with the activities of the Centre</td>
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</tbody>
</table>
Job Summary

- To assist with the activities of the research in the Centre (business planning, centre management, performance management and budget control) in agreement with the Centre Director and Board
- To liaise with TWI and University Research Enterprise Development teams to develop research & development programmes
- To lead on the development of excellent relationships with key funding partners
- To participate in relevant professional activities with the agreement of the University and TWI
- To engage in continuous professional development, for example, through participation in relevant staff development programmes
- To undertake, subject to agreement of the Centre’s board, external commitments, which reflect well upon and enhance the reputation of the University

Internal and External Relationships

Regular contact with the TWI, MatIC Centre Director, Engineering and the Research and Enterprise Division (RED)

Collaboration with other departments of the University, TWI, industrial partners and other higher education institutions and schools both national and internationally.

Academic, technical and administrative members of staff.

Planning and Organising

- Managing own time to ensure tasks are completed to appropriate deadlines, including conference and journal paper submissions.
- Plan and prepare research work to meet the need of MatIC and the Department of Engineering
- Plan research activities of the Centre after discussion with the Centre Director
- Organise research priorities and project tasks ensuring resource availability
- Analyse and present financial information and income and expenditure information, including finances projections for ‘FlexiBat’ Project

Qualifications, Knowledge and Experience

Essential
- A PhD in Chemistry, Electrochemistry, Materials Science, Engineering or related degree or equivalent*
- Demonstrated expertise and research achievement/potential in Materials, Corrosion, Engineering*
- Expertise in Corrosion, Metals and Materials Selection*

Desirable
- Evidence of experience in national and international collaboration
- Membership and/or evidence of activity with professional engineering institutions *
Job Summary

- Research strengths in battery technology, corrosion monitoring, materials selection, metallurgy, welding, materials, design of experiments or electrochemical modelling
- A strong publication record on research in Corrosion, Electrochemistry, Engineering Materials/Manufacturing and related topics

Skills, Abilities and Competencies

Essential
- Demonstrated ability to initiate, develop, and deliver high-quality research with an excellent record of research achievement underpinned by a record of publication in high quality peer-reviewed journals in Engineering
- Be able to identify areas of research collaboration and demonstrate the ability to form collaborations
- Strong evidence of the ability to build industrial collaborations
- Ability to lead and manage a research group
- Good effective communication (oral and written) and presentation skills
- Evidence of an ability to work independently and as part of a team
- Evidence of business planning and management
- Ability to plan, organise, implement, and deliver programmes of work

Desirable
- Evidence of competence in administration
- Good interpersonal skills
- Competence in IT and familiarity with a computerised environment

*Criteria to be used in shortlisting candidates for interview

VITAL

The University encourages all staff to live our VITAL values which are: Valuing People, Innovators, Together, Accountable, Leaders.

Equality and Diversity

We believe that equality, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equality, diversity and inclusion.