

## Candidate Information

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| <b>Position:</b>          | Research Fellow in Energy   |
| <b>School/Department:</b> | School of Chemistry and Chemical Engineering  |
| <b>Reference:</b>         | 19/107500   |
| <b>Closing Date:</b>      | Tuesday 18 June 2019  |
| <b>Salary:</b>            | £33,199 - £39,610 per annum (potential to progress to £43,266 per annum through sustained exceptional contribution) |
| <b>Duration:</b>          | 3 years   |

### JOB PURPOSE:

To be an active member of the Energy PRP within the School of Chemistry and Chemical Engineering, contributing to the planning and delivery of research in the area of sustainable hybrid energy generation systems for mobile and/or stationary applications. Specific examples range from integrating battery technology with next generation engines through to modification and optimisation of existing engine assets to biofuel including after-treatment solutions.

### MAJOR DUTIES:

1. Undertake research activities in the area of sustainable energy for transport and/or stationary applications.
2. Present regular progress reports on research to the Director and members of the PRP and to external audiences to disseminate and publicise research findings. Participate and present the work at conferences as appropriate.
3. Write up results of own work and contribute to the production of research reports, publications and proposals.
4. Develop collaborative relationships with key industrial and academic partners, and travel to meet the partners as required.
5. Actively seek opportunities for continued funding and engage in the preparation of research grants.
6. Contribute to the supervision of post- and undergraduate students associated with the project(s).
7. Carry out routine administrative tasks associated with the research project(s) to ensure that research project(s) are completed on time and within budget.
8. Carry out normal health and safety responsibilities.
9. Carry out any other duties designated by the PRP Director which fall within the general remit of the post.

### Planning and Organising:

1. Plan own day-to-day activity within the framework of the agreed research programme.
2. Contribute to the planning of research projects, reports and publications.

### Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.
2. Provide guidance as required to support staff and any students who may be assisting with research.

### Internal and External Relationships:

1. Liaise on a regular basis with research colleagues and support staff on routine matters.
2. Build internal and external contacts and participate in networks to develop knowledge and to form relationships for future collaboration.
3. Attend and contribute to relevant seminars and meetings.

### ESSENTIAL CRITERIA:

1. Hold a PhD in relevant Engineering discipline (e.g. Mechanical, Chemical etc.)
2. 3 years' relevant research experience in a relevant area of energy e.g. battery technology, green energy for transport, biofuels, after-treatment etc.
3. Ability to manage a research project.

4. Demonstrable publication record in peer-reviewed journals, commensurate with career stage.
5. Ability to communicate complex information effectively and to communicate with a range of disciplines/professions.
6. Ability to communicate effectively in English, both orally and in writing.
7. Demonstrable intellectual ability.
8. Evidence of good interpersonal skills and the ability to work both independently and as part of a team.
9. Willingness to travel for meetings, events and collaborative work.

**DESIRABLE CRITERIA:**

1. Training and/or practical experience in engine modification, testing and analysis.
2. Experience in the use of analytical equipment relevant to the positions (e.g. gas analysis).
3. One or more years of relevant postdoctoral research experience.
4. Experience of being involved in multidisciplinary research.
5. Ability to assess and organise resources.