

Candidate Information

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| Position: | Research Fellow |
| School/Department: | School of Chemistry and Chemical Engineering |
| Reference: | 21/108811 |
| Closing Date: | Monday 31 May 2021 |
| Salary: | £33,797 to £40,322 per annum |
| Anticipated Interview Date: | Thursday 10 and Friday 11 June 2021 |
| Duration: | 11 months or until 31 March 2022, whichever is soonest. |

JOB PURPOSE:

Applications are sought for a 1-year postdoctoral position within the QUILL Research Centre (School of Chemistry and Chemical Engineering) to work on a collaborative research programme with the School of Natural and Built Environment and several industrial partners, funded by InnovateUK. We are looking for an experienced PhD-level chemist, with expertise in waste conversion and valorisation, scale-up, and ideally - experience in collaboration with industrial partners.

The candidate is expected to be an active member of an international and interdisciplinary research group, contributing to planning and delivery of the project objectives. They will liaise directly with the industrial partners, including regular site visits and on-site scale-up work. Ideally, they will have a track record of successful supervision of research students, reflected in good quality publications.

MAJOR DUTIES:

1. Contribute to chemistry, scale-up and on-site tests in the project.
2. Work with other parties involved in the project towards the development of an industrially viable process of waste conversion and valorisation.
3. Ensure good working order of reactors and analytical equipment, carry out routine maintenance and calibrations as required.
4. Supervise and train research students on day-to-day basis.
5. Carry out analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
6. Prepare and present regular progress reports and presentations to members of the research group and to the industrial partners.
7. Prepare materials for publication in scientific journals and conferences.
8. Assist grant holder in the preparation of funding proposals and applications to external bodies.
9. Carry out routine administrative tasks associated with the research project/s to ensure that project/s are completed on time and within budget. These might include organisation of project meetings and documentation, reports and presentations, financial control, risk assessment of research activities.
10. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
11. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

Planning and Organising:

1. Plan for specific aspects of research programmes, based on timeline and milestones provided.
2. Plan for the use of research resources, laboratories and workshops where appropriate.
3. Plan own day-to day activity within framework of the agreed research programme, as well as research activities of supervised students.
4. Plan up to a year in advance to meet deadlines for project deliverables.
5. Coordinate and liaise with other members of the research group over work progress.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.
2. Provide guidance as required to support staff and students involved in research.

Internal and External Relationships:

1. Liaise on a regular basis with academics, researchers and students involved in the project, and within the research group.
2. Liaise with the industrial partners, engaging in technical discussions to the extent agreed with the line manager.
3. In regular and timely manner prepare presentations and reports for the industrial partners and the funding body.

ESSENTIAL CRITERIA:

1. Have or be about to obtain a PhD in Chemistry or related discipline.
2. At least 3 years of recent and relevant research experience in waste conversion and valorisation, scale-up, developing a chemical process with industrial partner(s).
3. Demonstrable ability to carry out, analyse, interpret and critically evaluate data, using a range of relevant techniques.
4. Ability to prepare journal papers and/or contribute to patent preparation.
5. Demonstrable experience of supervising research students/staff.
6. Ability to plan for specific aspects of research programmes at timescales of several weeks/months.
7. Contribute to planning research group activities at a similar scale.
8. Ability to communicate complex information clearly.
9. Ability to build contacts and participate in internal and external networks, including industrial partners.
10. Ability to present results to both technical and business audiences, in the form of reports and presentations, in a clear and professional manner.
11. Willingness to travel within Northern Ireland and carry out on-site work as a part of the research project.
12. Demonstrable intellectual ability.
13. Ability to assess and organise resources.
14. Ability to work well in an international, interdisciplinary and intersectorial environment.

DESIRABLE CRITERIA:

1. Demonstrable postdoctoral or equivalent research experience aligned to the project.
2. Proven experience in developing a chemical process in an industrial setting.
3. Experience with ASPEN.
4. Publication and/or patent track record commensurate with the stage of career.
5. Willingness to carry out postgraduate and undergraduate student supervision in research area relevant to the project.
6. Ability to contribute to broader management and administrative processes in the context of leadership in a large industry-facing research project.