## Purpose of role

You will contribute to a highly multi-disciplinary team working to develop novel microwave heating based technologies with the potential to access a wide range of markets across sectors as diverse as steelmaking, nuclear, food, catalysis and energy. Requirements of the role include the development and evaluation of novel microwave processing systems with gram to multi-tonne capacities, across potentially all of these application areas. As such, we are seeking innovative thinkers with a practical approach from a broad range of experiences and backgrounds. You should also have an enthusiasm to develop your expertise in materials processing and chemical engineering to produce high quality journal publications.

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<th>Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)</th>
<th>% time per year</th>
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| **1** Engineering Research  
- Deliver research as part of a collaborative team and to ensure that specific research objectives are completed on the scale-up of a number of different microwave materials processing applications from laboratory to industrial scale. | 65% |
| **2** Communication & Dissemination  
- To write research papers for submission to journals and conferences and prepare progress reports on the results of research.  
- To present the results of research at project progress meetings and at conferences. | 15% |
| **3** Project Administration  
- To assist in the co-ordination of the research and related administrative tasks, including liaising with external project collaborators | 10% |
| **4** Teaching  
- To provide assistance with supervision of doctoral students. | 5% |
| **5** Facilities Management  
- To contribute to the effective management and maintenance of laboratory equipment and facilities. | 5% |
## Person specification

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<th>Essential</th>
<th>Desirable</th>
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<tr>
<td><strong>Skills</strong></td>
<td>▪ Evidence of excellent research skills</td>
<td>▪ Skills in chemical process engineering and / or materials processing.</td>
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<td>▪ Excellent verbal and written communication skills</td>
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<td><strong>Knowledge and experience</strong></td>
<td>▪ Evidence of research publications</td>
<td>▪ Experience of working in an industrial research team</td>
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<td>▪ Experience in applied research through laboratory/pilot plant environment and/or appropriate industrial experience.</td>
<td>▪ Experience of health and safety procedures and regulations</td>
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<td>▪ Experience in the development and evaluation of new technologies</td>
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<tr>
<td><strong>Qualifications, certification and training (relevant to role)</strong></td>
<td>▪ First degree in chemical, process engineering or a related discipline.</td>
<td>▪ PhD or equivalent obtained in chemical or process engineering or a related discipline</td>
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<td>▪ Studying towards a PhD or equivalent in chemical or process engineering or a related discipline</td>
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The University strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women’s careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.
Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University’s strategy, vision and values. The following are essential to the role:

**Valuing people**
Is open and welcoming of others, approachable and respectful. Considers the wider point of view and delivers appropriate support and guidance to colleagues.

**Taking ownership**
Shows initiative and takes responsibility for own actions. Offers clarity and tactful support to colleagues to aid decisions and actions.

**Forward thinking**
Demonstrates the ability to learn, and enjoys the opportunity to develop. Likes to share and implement new ideas and improvements in their area of work. Seeks feedback from others.

**Professional pride**
Is self-appraising, seeking feedback from others and acts as a great role-model at all times. Keen to deliver the job well and be an effective member of the team.

**Always inclusive**
Is sensitive to the needs of others and understands every person is important, right across the organisation, irrespective of level, culture, disability or any other characteristic.

Key relationships with others

- **Line manager**
  Dr Adam Buttress
  Senior Research Fellow

- **Role holder**
  Research Associate/Fellow

- **Key stakeholder relationships**
  Colleagues
  Students