

# Research Associate



**OPPORTUNITY**

Where change  
gets real.



**Reference: 0759-26**

**Grade: 08**

**Salary: £38,784 to £43,482 per annum, depending on experience**

**Contract Type: Fixed Term (until 31-03-2027)**

**Basis: Full time**

## Job description

### Job Purpose:

The Energy and Bioproducts Research Institute is a partner in the Clean Maritime Research Hub and leads the Clean Maritime Policy Unit. We wish to appoint a researcher to evaluate the sustainability of different low carbon transitions in the maritime sector, including low carbon fuel production, delivery and utilization.

If successfully appointed, you will review maritime decarbonization options and evaluate the sustainability impacts of transition scenarios. This will include quantitative analysis and modelling of structured datasets, and contribution to techno-economic analysis (TEA), with a particular focus on the engineering and infrastructure implications of scale up and deployment.

To contribute to, develop and lead research activities of the Institute either independently or as part of a team, through professional practice and expertise. In addition, to exploit external links with other universities, regional, UK and international bodies such as government agencies, schools, colleges, professional bodies, business and industry as appropriate to the subject discipline and School and/or University strategy.

### Main Duties/Responsibilities

#### Research

To develop research objectives and carry out research for the Clean Maritime Research Hub, with the assistance of the Aston Co-investigators

- To review and evaluate low carbon fuel pathways for maritime and related transport sectors
- To undertake quantitative analysis and modelling using structured datasets (e.g. Excel-based or similar tools)
- To contribute to techno-economic analysis (TEA) of fuel production, delivery and utilisation pathways
- To support analysis of system-level and infrastructure implications for low carbon transitions
- To write up and publish the outcomes of research in good quality publications
- To present papers, posters, reports at seminars, conferences etc.
- To support relevant research engagement and impact activities
- To collaborate in research initiatives with colleagues in and beyond the Institute as appropriate
- To participate in and develop external networks
- To support supervision of PhD and other postgraduate students to completion

#### Teaching

- To assist in the development of student and staff research skills

#### External engagement

- To represent the interests of the subject and Institute via activities to raise the regional, national and international profile, particularly with industry, policy and business stakeholders
- To forge relationships with professional bodies and other relevant organisations

## **Citizenship**

- ▶ To carry out specific Institute roles and functions as may be reasonably required e.g. management group, health and safety representation.
- ▶ To take part in the meetings and activities of the Institute and represent it externally.
- ▶ To demonstrate the University's leadership values through own actions and behaviour.
- ▶ To undertake such other duties as may be reasonably requested and that are commensurate with the nature and grade of the post.

## **Additional responsibilities**

- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
- ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
- ▶ Carry out duties in a way which promotes fairness in all matters, and which engenders trust.
- ▶ Promote equality of opportunity and support diversity and inclusion as well as working to support the University's environmental sustainability agenda and practices.

## Person specification

	Essential	Method of assessment
<b>Education and qualifications</b>	<ul style="list-style-type: none"> <li>• A PhD in chemical, energy, environmental or mechanical engineering (or a closely related discipline), or near to completion</li> </ul>	Application form and interview
<b>Experience</b>	<ul style="list-style-type: none"> <li>• Experience of initiating and conducting research at doctoral level</li> <li>• Experience of analysing data and developing quantitative models using structured datasets (e.g. Excel-based or similar tools)</li> <li>• Experience of contributing to research outputs, including reports, publications and presentations</li> <li>• Experience of working collaboratively within and beyond an immediate research team</li> </ul>	Application form and interview
<b>Aptitude and skills</b>	<ul style="list-style-type: none"> <li>• Understanding of low-carbon fuel pathways relevant to maritime, aviation or automotive applications</li> <li>• Ability to contribute to techno-economic analysis (TEA) of fuel production and utilisation pathways</li> <li>• Ability to analyse results and draw appropriate conclusions</li> <li>• Strong written and verbal communication skills for both technical and non-technical audiences</li> <li>• Ability to work effectively as part of a multidisciplinary team</li> <li>• Familiarity with low-carbon fuels such as hydrogen, ammonia, methanol or sustainable aviation fuels (SAF)</li> <li>• Ability to use quantitative tools for data analysis and modelling</li> </ul>	Application form and interview

	Desirable	Method of assessment
<b>Experience</b>	<ul style="list-style-type: none"> <li>• Experience working on low-carbon fuel systems or decarbonisation pathways in a research or applied context</li> <li>• Experience contributing to techno-economic or energy systems analysis projects</li> <li>• Experience working with multidisciplinary teams across engineering, policy or industry contexts</li> <li>• Experience handling and analysing large or complex datasets</li> </ul>	Application form and interview
<b>Aptitude and Skills</b>	<ul style="list-style-type: none"> <li>• Knowledge of maritime energy systems and vessel propulsion systems</li> <li>• Experience in energy systems modelling or supply chain analysis</li> <li>• Familiarity with life cycle assessment (LCA) methods</li> <li>• Experience with data science or machine learning tools</li> <li>• Interest in project coordination or project management</li> <li>• Knowledge of engineering design principles in a fuel or transport context</li> </ul>	Application form and interview

## University values

All staff are expected to demonstrate/promote the University's values and expectations, which are an integral part of our strategy and underpin the culture of the University. In addition, our leaders are expected to be accountable, help to execute strategic visions of the University and share and set clear expectations that inspire those around them.

**Values + Behaviours**



**Innovation**

We strive for excellence within ourselves and others, providing solutions to new and existing challenges.



**Collaboration**

We work best when we are collaborative, working together to contribute to the Aston community.



**Ambition**

We strive together for improvement and innovation looking ahead to see the bigger picture.



**Inclusion**

We treat everyone in our community equally and how they would like to be treated.



**Integrity**

We are open, honest and fair. We take ownership of the way we work and how we treat each other.

## How to apply

You can apply for this role online via our website <https://www2.aston.ac.uk/staff-public/hr/jobs>.

Applications should be submitted by 23.59 on the advertised closing date.

All applicants must complete an application form, along with your CV.

Any CV sent direct to the Recruitment Team and Recruiting Manager will not be accepted.

If you require a manual application form, then please contact the Recruitment Team via [recruitment@aston.ac.uk](mailto:recruitment@aston.ac.uk).

## Contact information

### Enquiries about the vacancy:

Name: Zhentao Wu

Job Title: Senior Lecturer, School of Engineering and Innovation

Email: [wuz7@aston.ac.uk](mailto:wuz7@aston.ac.uk)

### Enquiries about the application process, shortlisting or interviews:

Recruitment Team via [recruitment@aston.ac.uk](mailto:recruitment@aston.ac.uk) or 0121 204 4500.

## Additional information

Visit our website <https://www2.aston.ac.uk/staff-public/hr> for full details of our salary scales and benefits Aston University staff enjoy.

**Salary scales:** <https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index>

**Benefits:** [Benefits and Rewards | Aston University](#)

**Working in Birmingham:** <https://www2.aston.ac.uk/birmingham>

**Employment of Ex-Offenders:** Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

**Eligibility to work in the UK:** Where an individual is subject to UK immigration control, they will require a visa to work in the UK.

The following individuals do not need a visa for the UK, but do still have to prove their right to work before employment can commence:

- **British Citizens or Irish Nationals**
- **EU/EEA/Swiss nationals with Settled or Pre-settled status under the EU Settlement Scheme**
- **Non-EEA nationals with Indefinite Leave to Remain/Settlement in the UK**

The main routes available for those who need a visa to work in the UK are **Skilled Worker**, **Global Talent** and the **Graduate Route**.

Please see UKVI guidance for further information on eligibility, knowledge of English requirements and approved test centres <https://www.gov.uk/skilled-worker-visa> You can also find further information on our candidate immigration [web page](#).

If you will conduct research in your role, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application. Please see our candidate immigration [web page](#) for further details.

## **Before you start and Right to Work**

### Right to Work Check

All employees must complete a Right to Work check before they commence work at Aston. HR will contact you during the onboarding process to arrange your check.

### Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents that can help you find suitable accommodation. Useful websites for support and guidance

<https://www.gov.uk/government/publications/how-to-rent/how-to-rent-the-checklist-for-renting-in-england> and <https://www.citizensadvice.org.uk/housing/>

You can also use property search websites such as Rightmove or Zoopla.

## **Equal Opportunities**

Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

## **Data Protection**

Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at <https://www2.aston.ac.uk/data-protection>. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Full details of our terms and conditions of service and associated policies and procedures are available online at <https://www2.aston.ac.uk/staff-public/hr/policies>

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