

Research Associate

Department	Naval Architecture, Ocean, and Marine Engineering (www.strath.ac.uk/engineering/navalarchitectureoceanmarineengineering/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Research	Reference No	590544
Reports To	Prof Feargal Brennan	Grade:	7
Salary Range:	£36,024 - £44,263	Contract Type:	Fixed Term (Until May 2027)
FTE:	1 (35 hours/week)	Closing Date	Friday, 15 March 2024

Job Advert

The Faculty of Engineering at the University of Strathclyde is one of the largest and most successful engineering faculties in the UK, and the largest in Scotland. As a leading international technological university, Strathclyde University is recognised for its world-class research, knowledge exchange and educational programmes. At the heart of this is the Faculty of Engineering, which boasts a growing research portfolio of nearly £100 million.

The Department of Naval Architecture, Ocean and Marine Engineering is a world-leader in research related to all aspects of ocean energy and maritime transport. The Department makes a significant contribution to National, European and International policymaking in Marine Technology research and its application and was recently ranked Number 1 in Europe and Number 3 in the world for Marine/Ocean Engineering in the global Shanghai Rankings 2022.

We seek to employ a Research Associate to work on the UKRI/EPSCRC-funded research “Co-design to deliver Scalable Tidal Stream Energy (CoTide)”. The ambitious target of net-zero by 2050 requires a significant expansion of renewable energy supply. Whilst the backbone of this supply will be the offshore wind, tidal Stream Energy also has significant potential for the UK and globally. The predictability of the tidal resource is a key benefit and will become increasingly important to help balance more varied supply from other renewables as the UK and other nations develop robust low carbon energy networks. The vision of this project is to develop and demonstrate holistic integrated tools and design processes for tidal Stream Energy that will significantly reduce costs by removing unnecessary redundancy and improving confidence in engineering solutions, providing the transformative engineering processes and designs that will enable tidal energy to make a significant contribution to achieving climate change objectives by 2030-40. As a Research Associate and under the general supervision of line manager, you will play a key role in the research developments such as:

- Life-cycle damage analysis & structural reliability
- Digitalisation enabled operation & maintenance

You will be expected to write up project reports and produce high-quality journal/conference publications. Additionally, you will need to contribute to the securing of funds for research, including drafting grant proposals and planning for future proposals.

To be considered for the role, you should have a minimum of PhD level in an appropriate discipline such as offshore engineering, ocean engineering and structural engineering, or have significant relevant experience in addition to a relevant degree. You should have sufficient breadth or depth of knowledge in:

- Marine renewables
- Structural and structural integrity analysis
- Structural reliability
- Structural inspection planning
- Structural monitoring

You will have an ability to conduct individual research work, to plan and organise your own workload effectively and to work within a team environment. You will have excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

Whilst not essential for the role, applications are welcomed from candidates with: relevant work experience, membership of relevant Chartered/professional bodies (including the Higher Education Academy), experience of relevant student supervision and teaching activities, and/or experience of knowledge exchange related activities.

Job Description

Brief Outline of Job:

To undertake the CoTide research project under the general guidance of line manager; to establish a personal research portfolio and plan research proposals, with assistance from senior colleagues as required; to engage where required in relevant teaching, professional and knowledge exchange activities; and input to administrative activities.

Main Activities/Responsibilities:

1.	Develop research methodologies and perform case studies for CoTide research with guidance from line manager
2.	Plan and manage own workload, with guidance from colleagues as required.
3.	Conduct individual and/or collaborative research, including determining appropriate research methods and contributing to the development of new research methods.
4.	Identify sources of funding and contribute to the securing of funds for research, including drafting grant proposals and planning for future proposals.
5.	Write up research work for publication, individually or in collaboration with colleagues, and disseminate results as appropriate to the discipline by, for example, peer reviewed journal publications and presentation at conferences.
6.	Join external networks to share information and ideas, inform the development of research objectives and to identify potential sources of funding.
7.	Collaborate with colleagues to ensure that research advances inform departmental teaching effort.
8.	Collaborate with colleagues on the development of knowledge exchange activities by, for example, participating in initiatives which establish research links with industry and influence public policy and the professions.
9.	Supervise student projects, provide advice to students and contribute to teaching as required by, for example, running tutorials and supervising practical work.
10.	Contribute in a developing capacity to Department/School, Faculty and/or University administrative and management functions and committees.
11.	Engage in continuous professional development.

Person Specification

Educational and/or Professional Qualifications

(E=Essential, i.e. a candidate must meet all essential criteria to be considered for selection, D=Desirable)

E1 Good honours degree and PhD (or equivalent professional experience) in an appropriate discipline

D1 Membership of relevant Chartered/professional bodies (including Higher Education Academy)

Experience

E2 Sufficient breadth or depth of knowledge in the relevant discipline/s to contribute to research programmes and to the development of research activities.

D2 Some relevant work experience

D3 Experience of relevant student supervision and teaching activities

D4 Experience of knowledge exchange related activities

Job Related Skills and Achievements

E3 Developing ability to conduct individual research work, to disseminate results and to prepare research proposals

E4	Ability to plan and organise own workload effectively
E5	Ability to work within a team environment
E6	Experience in finite element analysis of feature-complex engineering structures
E7	Experience in engineering critical assessment of metallic materials
E8	Experience in structural reliability analysis considering in-service deterioration
E9	Experience in developing in-house computational code
Personal Attributes	
E10	Excellent interpersonal and communication skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences

Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted without further permission, unless you indicate that you would prefer otherwise. Applicants should also submit a Curriculum Vitae and a covering letter detailing the knowledge, skills and experience you think make you the right candidate for the job. Applicants should also complete the Equal Opportunities Monitoring Form.

Other Information

Further information on the application process and working at Strathclyde can be found on our website (<http://www.strath.ac.uk/hr/workforus>).

Informal enquiries about the post can be directed to Prof Feargal Brennan, James Blyth Distinguished Professor of Offshore Engineering (feargal.brennan@strath.ac.uk).

Conditions of Employment

Conditions of employment relating to the Research staff category can be found at: [Conditions of Employment](#).

Rewards and Benefits

Our staff have access to a wide range of outstanding benefits that include financial rewards, family friendly and wellbeing benefits and career development opportunities, details of which can be found [here](#).

Probation

Where applicable, the successful applicant will be required to serve a 9 month probationary period.

Pension

The successful applicant will be eligible to join the Universities' Superannuation Scheme. Further information regarding this scheme is available from [Payroll and Pensions](#).

Relocation

Where applicable, the University offers a relocation package to support new employees who meet the eligibility criteria. The relocation package is offered as a contribution towards costs incurred, and is designed to be flexible, allowing staff to use the financial support available in the way that will be most helpful to them. Further details are outlined in the Relocation Policy.

Interviews

Formal interviews for this post are scheduled to be held on Wednesday, 10 April 2024.

Equality and Diversity

The University of Strathclyde is a socially progressive institution that strives to ensure equality of opportunity and celebrates the diversity of its student and staff community. Strathclyde is people-oriented and collaborative, offering a supportive and flexible working culture with a deep commitment to our equality, diversity and inclusion charters, initiatives, groups and networks.

We strongly encourage applications from Black, Asian and minority ethnicity, women, LGBT+, and disabled candidates and candidates from lower socio-economic groups and care-experienced backgrounds.

University Values

The University's Values capture what we're all about: who we are, what we believe in and what we stand for. [Our Values](#) have been derived from how we act and how we expect to be treated as part of Strathclyde.

