

Research Associate

Department	Electronic and Electrical Engineering (www.strath.ac.uk/eee/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Research	Reference No	73829
Reports To	The Head of Department, through Dr. Alasdair McDonald	Grade:	7
Salary Range:	£31,076 - £38,183	Contract Type:	Fixed Term (Until 30/04/2018)
FTE:	1	Closing Date	Friday, 23 June 2017

Job Advert

Applications are sought from highly motivated individuals to join our internationally leading wind energy research group based in the department of Electronics and Electrical Engineering. The role focuses on asset life extension for wind turbines, and requires that the successful candidate has an excellent range of technical skills: the understanding and modelling of loads and fatigue of wind turbine structures (knowledge of ANSYS or a similar FEA package would be an advantage); the skills to manage and maintain an active wind turbine measurement campaign (based on accelerometers); the intellectual curiosity to determine the relationship of loads and fatigue to measures of wind conditions and turbine operating state as measured by SCADA data (through analysis of loads signals from measurement campaign and support load calculation techniques). A track record of delivery of industrial R&D would be a distinct advantage in this role. In addition to technical aspects of this role, the post holder will be expected to produce technical reports for project partners, take the technical lead at partner meetings, and publish conference and journal papers on the findings of the research.

As a Research Associate, under the general guidance of a research leader, you will develop research objectives and proposals, play a lead role in relation to a specific project/s or part of a broader project, conduct individual and/or collaborative research, contribute to the development of new research methods, identify sources of funding, and contribute to the securing of funds for research, including drafting grant proposals and planning for future proposals. You will write up research work for publication, individually or in collaboration with colleagues, and disseminate the results via peer reviewed journal publications and presentation at conferences. You will join external networks to share information and ideas, inform the development of research objectives and to identify potential sources of funding. You will collaborate with colleagues to ensure that research advances inform departmental teaching effort and you will 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. You will supervise student projects, provide advice to students and contribute to teaching as required by, for example, running tutorials and supervising practical work. You will contribute in a developing capacity to Department/School, Faculty and/or University administrative and management functions and committees and engage in continuous professional development.

To be considered for the role, you will be educated to a minimum of PhD level in an appropriate discipline, or have significant relevant experience in addition to a relevant degree. You will have sufficient breadth or depth of knowledge in load modelling of wind turbine structures (or relevant transferrable skills) and a developing ability to conduct individual research work, to disseminate results and to prepare research proposals. You will have an ability to plan and organise your own workload effectively and an ability 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 a specific research project (Wind turbine life extension) under the general guidance of a research leader; 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.	Through analysis of measured loading and operating conditions, determine the relationship of fatigue loading/Damage Equivalent Loads (DELs) to measures of wind conditions and turbine operating state as measured by standard SCADA data.
2.	Monitor & maintain the operation of an active wind turbine load measurement campaign. As well as ensure the effective logging, storage and dissemination of logged measurement signals. Work with LCPE industrial partners to develop fatigue estimation & remaining life models for the wind turbine assets.
3.	Work with LCPE industrial partners to develop fatigue estimation & remaining life models for the wind turbine assets.
4.	Plan and manage own workload, with guidance from colleagues as required.
5.	Conduct individual and/or collaborative research, including determining appropriate research methods and contributing to the development of new research methods.
6.	Identify sources of funding and contribute to the securing of funds for research, including drafting grant proposals and planning for future proposals.
7.	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.
8.	Join external networks to share information and ideas, inform the development of research objectives and to identify potential sources of funding.
9.	Collaborate with colleagues to ensure that research advances inform departmental teaching effort.
10.	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.
11.	Supervise student projects, provide advice to students and contribute to teaching as required by, for example, running tutorials and supervising practical work.
12.	Contribute in a developing capacity to Department/School, Faculty and/or University administrative and management functions and committees.
13.	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.

Personal Attributes

- E6 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.
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Application Procedure

Applicants are required to complete an application form including the name of three referees who will be contacted before interview 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 Mr Neil Brown, Programme Manager – TIC LCPE (neil.brown@strath.ac.uk) (0141 444 7252).

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 will be held on Friday, 30 June 2017.

Equality and Diversity

We value diversity and welcome applications from all sections of the community.

The University currently holds a Bronze Athena SWAN award, recognising our commitment to advancing women's careers in science, technology, engineering, maths and medicine (STEMM) employment in academia.

