Research Fellow in Offshore Wind Energy
School of Engineering

Closing date: 15 November 2019
Interview date: TBC
Reference number: ENG143R
Introduction

Applications are invited for a Postdoctoral position at the School of Engineering, University of Aberdeen. This position is funded by the EU Interreg programme with a focus on offshore wind energy.

We aim to develop a decision support system for the decommissioning and end-of-life assessment of offshore windfarms. We intend to develop models correlating the influencing parameters to the cost, environmental impact and operational risk of various decommissioning scenarios. Combining evolutionary optimisation techniques with the developed models allows us to generate superior alternative scenarios which then will be compared against each other using a suitable decision making platform for multi-criteria assessment under uncertainties.
Job description

Main purpose of the role:
The Postdoctoral Researcher will be expected to make significant contributions to the direction and progress of an exciting and innovative project (DecomTools) and will be in charge of the development of a decision support system for decommissioning. The project is part of an EU funded programme aimed at eco-innovative concepts for the end of offshore wind energy farms lifecycle and is collaborative with twelve other institutions within the EU.

Key responsibilities:
Research Fellow in Offshore Wind Energy
- Developing cost and reliability models related to decommissioning process and end-of-life analysis by conducting academic research and gathering data from other sectors dealing with decommissioning
- Carrying out research on multidisciplinary optimisation and decision making under uncertainties
- Developing decision support system software tool
- Preparing reports and presenting results at internal and external progress meetings
- Assisting in governance of research activity related to the project
- Disseminating results in peer reviewed journals and relevant conferences

At a glance

Salary:
£33,797 - £38,017 per annum

Hours of work:
Full Time

Contract type:
Project Limited
Candidate background

Successful applicants will have a strong background in engineering optimisation using metaheuristic methods and proven skills in the development and coding of evolutionary algorithms. A proven track record of research and outstanding communication skills showing enthusiasm and the ability to work both independently and as part of a multi-disciplinary team, using initiative and logical thinking are essential. Theoretical background in risk analysis and/or system evaluation under uncertainties are advantageous. The appointee will join a research-intensive academic unit engaged in fundamental and applied research across the Engineering disciplines.

Terms of appointment

Salary will be at the appropriate point on the Grade 6 salary scale (£33,797 - £38,017 per annum) and negotiable with placement according to qualifications and experience. Consideration will be given to making an appointment at Research Assistant level for individuals in the final stages of completing their PhD, Grade 5 (£31,865 per annum).

As this position is funded by the European Commission it is available for 32 months.

Any appointment will be made subject to satisfactory references and a 12 month probation period.

For further information on various staff benefits and policies please visit www.abdn.ac.uk/staffnet/working-here

Should you require a visa to undertake paid employment in the UK you will be required to fulfil the minimum points criteria to be granted a Certificate of Sponsorship and Tier 2 visa. As appropriate, at the time an offer of appointment is made you will be asked to demonstrate that you fulfil the criteria in respect of financial maintenance and competency in English. Please do not hesitate to contact [Heather Clark, h.m.clark@abdn.ac.uk] for further information.
## Person specification

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<th>Education/Qualifications</th>
<th>Essential</th>
<th>Desirable</th>
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<tr>
<td>Academic, technical and professional education and training</td>
<td>• PhD in Engineering or Computer Science</td>
<td>• BEng/MEng in Mechanical/Structural Engineering</td>
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<th>Work and Other relevant experience (including training)</th>
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<th>Desirable</th>
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<tr>
<td>eg Specialist knowledge, levels of experience, supervisory experience, research</td>
<td>• Research background in multidisciplinary engineering optimisation</td>
<td>• Knowledge of theories on risk and reliability analysis and evaluation of systems under uncertainties</td>
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<td>• Excellent computer programming skills, preferable in MATLAB or c-family</td>
<td>• Mechanical/structural design knowledge and experience</td>
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<th>Personal qualities and abilities</th>
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<th>Desirable</th>
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<td>eg initiative, leadership, ability to work on own or with others, communication skills</td>
<td>• Able to work independently and within a multidisciplinary team</td>
<td>• Creative</td>
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<td>• Excellent communication skills</td>
<td>• Methodological</td>
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<th>Other</th>
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<td>eg special circumstances (if any) appropriate to the role such as unsocial hours, travelling, Gaelic language requirements etc.</td>
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The University

Founded in 1495, Aberdeen is Scotland’s third oldest University and the fifth oldest in the UK. Ranked within the world top 140 in the recent QS global league table, Aberdeen is the ‘global University of the north’.

Aberdeen is a broad based, research intensive University, which puts students at the head of everything it does. It has significant academic strengths and potential across a wide variety of disciplines. Outstanding in a wide range of discipline areas across the entire research spectrum, Aberdeen has also been credited for its international reach and its commercialisation of research ideas into spin out companies.

The University has over 14,000 matriculated students and 3,600 staff representing 120 nationalities. We encourage bold thinking, creativity and innovation and we nurture ambition with many opportunities for professional and personal development in an inclusive learning environment which challenges, inspires and helps every individual to reach their full potential.

The University combines a distinguished heritage with a forward looking attitude. In the past few years, the University has encouraged creativity in its academic staff, broken new ground with an innovative curriculum, and developed state-of-the-art facilities including the new Sir Duncan Rice Library and the Aberdeen Sports Village and Aquatics Centre. In looking to the future, the University seeks to enhance its reputation as one of the world’s leading Universities by moving forward with ever more ground breaking research; ensuring students have an intellectual and social experience second to none; and capitalising upon the dual role as one of the major institutions of the north and as a cornerstone of regional economic and cultural life.
The city and the region

Aberdeen and Aberdeenshire

Aberdeen is world renowned as the oil capital of Europe and the region is both the agricultural heartland of Scotland and a hub of the food and drink industry.

With the population approaching 230,000, Aberdeen is big enough to provide all the advantages of city life, yet compact enough to enjoy the more intimate atmosphere usually associated with small towns.

Aberdeenshire is one of Scotland’s most appealing regions. Royal Deeside and the Cairngorms National Park are within easy access of the city, and there are a variety of towns and villages scattered along the coastline.

Aberdeen and Aberdeenshire cater for a wide range of tastes in sporting and cultural activities.

To find out more about Aberdeen and Aberdeenshire go to www.VisitScotland.com

How to apply

Online application forms are available at www.abdn.ac.uk/jobs
Applications are required to upload a one page statement (preferably graphical) on their approach in the development of the decision support system.

The closing date for receipt of applications is 15 November 2019

Should you wish to make an informal enquiry please contact
Dr Alireza Maheri
01224 272501
Alireza.Maheri@abdn.ac.uk

Please do not send application forms or CVs to Dr Alireza Maheri

Please quote reference number ENG143R on all correspondence

The University pursues a policy of equal opportunities in the appointment and promotion of staff.