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Wind Turbine Decommission Project Lead (KTP Associate)

| Department | Mechanical and Aerospace Engineering (www.strath.ac.uk/engineering/mechanicalae | rospaceengineering | <i>!</i> /) |
|----------------|--|--------------------|------------------------|
| Faculty | Faculty of Engineering (www.strath.ac.uk/engineering/) | | |
| Staff Category | КТР | Reference No | 426176 |
| Reports To | Dr Tiziana Marrocco (Knowledge Base Supervisor) Carol Sheath (Business Partner Supervisor) | Grade: | RS79 |
| Salary Range: | £34,000-£41,000 p.a. plus £4,000 training and development budget | Contract Type: | Fixed Term (24 months) |
| FTE | 37.5 hours per week | Closing Date | 20/02/2022 |

Job Advert

The Department of Mechanical and Aerospace Engineering in partnership with Renewable Parts Limited (RPL, www.renewable-parts.com) are seeking to appoint a Wind Turbine Decommissioning Project Lead (KTP Associate) in the area of Remanufacturing, with a focus on circular economy business model development and application of value retention processes.

Renewable Parts Ltd. is the leading independent supplier of parts for the UK's wind turbine industry, offering both onshore and offshore supply chain and logistics solutions, with a growing focus on providing circular economy solutions through refurbishment and remanufacture of wind turbine components. Established in 2011, the company's vision is to make the wind industry more sustainable by reducing waste and maximising availability.

The position offers the KTP Associate the following benefits:

- a challenging and rewarding job with real responsibility
- a planned programme of training courses, including a £4k personal development budget
- mentoring from experienced industrial and academic supervisors
- the support and resources of the University of Strathclyde
- the possibility of registering for a higher degree with the University
- the potential for good career development with the company at the end of the scheme
- developing and proving expertise in the prospering fields of renewable energy and remanufacturing
- the opportunity to make important and tangible improvements in an ambitious and dynamic company
- the opportunity to create foundations with the organization to develop new business models
- the opportunity to make a significant contribution to wind industry sustainability and carbon footprint

The post will be predominantly based at the company premises in Lochgilphead with visits to the site in Renfrew and Strathclyde University Campus.

The project is part of the Knowledge Transfer Partnership (KTP) programme that aims to help businesses to improve their competitiveness and productivity through the better use of knowledge, technology and skills that reside within the UK knowledge base. Successful Knowledge Transfer Partnership projects are funded by UK Research and Innovation through Innovate UK and are part of the government's Industrial Strategy. To find out how KTP works and the vital role you will play if you successfully secure a KTP Associate position please visit: www.ktpws.org.uk

The objective of this project is to embed capability in remanufacturing, metrology, assessment and evaluation of end-of-life-turbines, to enable development of a robust business development plan and process for whole turbine decommissioning and recirculation of turbine parts for the renewables sector.

To be considered for the role you will be expected to have a BEng or preferably MEng degree in Mechanical Engineering, Manufacturing Engineering with Materials. A minor in business would desirable. The successful candidate will have experience in mechanical and/or manufacturing engineering with relevant industrial experience and life cycle engineering and remanufacturing experience being desirable. For a full list of role requirements please see the person specification below.

In addition to the KTP core development training, you will have a dedicated training budget of £4,000 to further support your career development.

Job Description

Brief Outline of Job:

In Scotland alone, it's estimated that 4,800 -- 5,600 turbines will be decommissioned between 2021 and 2050 and, based on current methods, between 228,000 - 285,000 tonnes of materials will be sent to landfill. The KTP Associate will play a key role in altering that landfill statistic and reducing wind industry carbon emissions. Supported by a team at the University of Strathclyde, the KTP Associate will undertake a 2-year programme of work to research and develop both business and technical solutions to maximise value retention from onshore wind turbine decommissioning.

The KTP Associate will need to form an understanding of the UK wind industry and the forthcoming decommissioning landscape to assess the market and business opportunity for harvesting parts from decommissioned wind turbines for remanufacture and resale. Based on the output of this study, the Associate and the academic team will use latest state-of-the-art methodology and technology to develop the technical solutions required to realise those opportunities.

The Associate will also contribute to the knowledge base through training workshops and reports which will be the basis for journal publications and lecture material. Consistent reference to literature and use of academic and industry expertise will ensure best practice and successful delivery.

Main Activities/Responsibilities:

| I. | Lead and project manage the Decommissioning KTP | | |
|-----|--|--|--|
| 2. | Deliver bench-marking report detailing decommissioning roadmap, current industry practices and opportunities | | |
| 3. | Develop a business model proposal for sustainable decommissioning & validate through project | | |
| 4. | Assessment of RPL and wider industry knowledge and capability, identifying key gaps | | |
| 5. | Identification of suitable industry partners to deliver business model & develop relationship to initial agreement | | |
| 6. | Development of a decision-making framework & roadmap for turbine and component types | | |
| 7. | Technical solution development & validation for harvesting parts from a wind turbine nacelle | | |
| 8. | Technical solution development & validation for remanufacture of selected components | | |
| 9 | Undertake materials characterisation tasks as required | | |
| 10. | Embedding knowledge gained from project (e.g. through documentation, training) within RPL | | |
| 11. | Dissemination of KTP outputs and industry engagement with Academic team (e.g. through publication and presentation of work at conferences, tradeshows and in peer reviewed journals) | | |
| 12. | Engage in continuous professional development within the University and Company as appropriate | | |

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 BEng or preferably MEng degree in Mechanical Engineering, Manufacturing Engineering or Manufacturing Engineering with Materials.

DI A qualification in business is desirable.

Knowledge & Experience

- E2 Sufficient breadth or depth of knowledge in mechanical and/or manufacturing engineering
- E3 Relevant industrial experience
- D2 Life cycle engineering and remanufacturing experience
- D3 Wind turbine life cycle knowledge
- D4 Materials processing & characterisation knowledge
- D5 Manufacturing process knowledge, in particular additive and subtractive manufacturing
- D6 Experience of project management & delivery
- D7 Product development experience

Skills & Attributes

- E4 Self-directed and self-motivated
- E5 Proficient in technical writing/presentation
- E6 Strong project management skills (particularly communication, organisation, and leadership)
- E7 Good interpersonal and collaboration skills
- D8 Awareness of commercial drivers
- D9 Good computational skills (e.g. MS office)

Other Relevant Factors

- E8 Keen interest in renewables and wind energy
- E9 Keen interest in sustainability and circular economy

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 Dr Tiziana Marrocco (tiziana.marrocco@strath.ac.uk).

Conditions of Employment

Conditions of employment relating to the KTP Associate 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 6 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

Informal interviews will be held in March 2022.

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 gender equality in academia across all academic disciplines and professional and support functions.

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.











