

Knowledge Exchange Associate in Transforming Water and Energy Access

Department	Civil and Environmental Engineering (www.strath.ac.uk/civeng/)		
Faculty	Faculty of Engineering (www.strath.ac.uk/engineering/)		
Staff Category	Knowledge Exchange	Reference No	335309
Reports To	Head of Department through Dr D Bertram	Grade:	7
Salary Range:	£32,817 - £35,845	Contract Type:	Fixed Term until 30 June 2021
FTE	1	Closing Date	30/11/2020

Job Advert

The Department of Civil and Environmental Engineering, in partnership with a leading pumped water solutions SME, Water Powered Technologies Ltd, seek to appoint an electrical/power systems engineering professional as a Knowledge Exchange Associate. This position forms part of a strategic partnership which is supported by an Innovate UK Energy Catalyst Award. The Energy Catalyst is a high-profile programme funding excellent projects of collaboration between industry and academia, looking to develop new technologies for exploitation in the UK and overseas energy markets. This project focusses on the deployment and demonstration of Micro Grid connected Pumped Hydro-Energy Storage (PHES) systems, integrating them with the local micro grid powered communities in order to provide water and energy solutions and transform energy access.

To be considered for this role, you will be educated to a minimum of PhD level in Electrical Engineering, Mechanical and/or Civil Engineering, or have significant relevant experience working in a related field in addition to a relevant undergraduate degree. You will have knowledge of the electrical systems supporting hydropower systems including micro grid integration systems and their operating and environmental characteristics, together with experience in renewable energy or micro grid sectors. With experience in delivering practical demonstration plus written technical reports both written and orally, you will have an ability to plan and organise your own workload effectively and an ability to work both independently and within a team environment. You will have excellent troubleshooting skills, including a methodical approach to solving complex problems, and the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

The post is funded up to 30 June 2021 for up to 6 months depending on start date, with the option for a full or part-time contract depending on applicant preference.

Job Description

Brief Outline of Job:

The University of Strathclyde in Glasgow possesses a large internationally rated Engineering Faculty with a proud history of successful joint ventures with industrial and enterprise partners. As 'the place of useful learning' the University is committed to the advancement of society through the pursuit of excellence in research, education and knowledge exchange, and through creative engagement with partner organisations at local, national and international levels. The Department of Civil and Environmental Engineering is recognised nationally and internationally for its excellence in teaching, research and knowledge exchange in the fields of Civil and Environmental Engineering and has a strong track record of industrial engagement.

As a Knowledge Exchange Associate you will be an employee of the University of Strathclyde but will also spend some of your working time with our project partners and lead SME at their premises and test site in south-west England and onsite in Africa (locations include Malawi and Zimbabwe). This role will involve supporting the deployment of the Pumped Hydro-Energy Storage (PHES) in at least two locations in Africa, and future UK development providing engineering and research technical support in terms of assessing and developing demonstrator sites, preparing test methodologies, assessing PHES performance and supporting local energy grid integration. You will be working with project and local partners to support community development and integration of the PHES within micro-grid, as well as develop novel and sustainable water and energy resource business models for hydropower applications. You will be supported by an experienced academic and industrial team with expertise in hydrology, hydraulics and hydropower and /or micro grid systems.

As a Knowledge Exchange Associate you will also work as part of the academic group to develop new learning and teaching materials aimed at developing industry focussed water-energy and sustainable development CPD, as well as potentially contributing to delivery of existing water engineering modules. You will also be involved with frequent interaction with industry, report and academic paper writing, as well as wider dissemination and stakeholder engagement, generally communication for the project will include both technical and practical aspects relating to the development of the community water and energy solutions, social and economic integration outcomes.

Main Activities/Responsibilities:

1.	Play a lead role in relation to the specific project including gathering and analysing technical information relating to the energy generation systems project outputs which include activities relating to assessing and developing demonstrator sites, preparing test methodologies, assessing PHES performance.
2.	Scope and review technology solutions to assist site technology development, including micro grid integration and sustainable power supply to the local community.
3.	Work with project partners to support community development and integration of the PHES.
4.	Communicate research activity to academic and industrial collaborators, including writing technical reports, journal papers and conference presentation.
5.	Undertake administrative activities relevant to the knowledge exchange programme.
6.	Collaborate with the project partners and assist the practical implementation of the project outputs.
7.	Plan and manage own workload, with guidance from the Team Lead or Project Lead as required.
8.	Build contacts internally and externally, and participate in networks for the exchange of information, form relationships with customers, suppliers and colleagues for future collaborations.
9.	Participate in running successful CPD events and consultancy activity.

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 Degree and PhD (or equivalent professional experience) in appropriate discipline (i.e. Electrical Engineering, Civil, Civil and Environmental Engineering, Mechanical Engineering.).

D1 Membership of relevant Chartered/professional bodies.

Experience

E2 Sufficient breadth or depth of knowledge in the relevant discipline i.e. hydropower generation systems, operating and environmental characteristics, to effectively contribute to wider industrial led research programmes.

E3 Relevant experience in renewable energy or water-environment or environmental impact assessment sectors.

D2 Experience working with stakeholder and community partners to support social and economic engagement and development.

D3 Experience in developing and delivering learning, teaching or CPD courses in water engineering, hydraulics or mechanics.

D4 Familiarity with emerging renewable energy technologies, economy factors and environmental impact concepts.

Job Related Skills and Achievements

E4 Demonstrable experience in delivering industrial led research (or relevant industrial) projects in a timely manner.

E5 Experience of producing written and presenting oral technical reports.

Personal Attributes

E6 Excellent written and verbal communication and interpersonal skills, with the ability to listen, engage and persuade, and to present complex information in an accessible way to a range of audiences.

E7 Troubleshooting skills, including a creative, innovative and methodical approach to solving complex problems.

E8 The ability to work both independently and as part of team through participation in collaborative projects.

E9 Ability to plan and organise own workload effectively, with evidence of having successfully completed applied research tasks to both interim and final milestones.

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/workforum>).

Informal enquiries about the post can be directed to Dr Doug Bertram, Senior Knowledge Exchange Fellow (douglas.bertram@strath.ac.uk).

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](#).

Conditions of Employment

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

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 8th December 2020.

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.

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.

