JOB TITLE:	**KTP Associate: Electronics Engineer**
SECTION:	Environmental Research Institute (ERI), North Highland College-UHI
LOCATION:	Ocean Science Consulting Limited (OSC), Spott Road, Dunbar, EH42 1RR
SCALE POINT RANGE:	£31,066 - £33,641
TERM:	30 months (subject to 6-month probationary period)
START DATE:	By 26 September 2022
RESPONSIBLE TO:	Dr Benjamin Williamson & Sophie Cox
CLOSING DATE:	Closing date: 5 September 2022. Interviews (online): 9 September 2022

This is an exciting opportunity for an ambitious graduate in Electronic Engineering or a relevant field covering sensing and instrumentation, to fast-track their career development as a Knowledge Transfer Partnership (KTP) Associate. KTP supports partnerships between business and universities or research organisations, placing graduates (KTP Associates) to work on innovative high-profile projects. The successful candidate will undertake a 30-month collaborative project between Ocean Science Consulting Limited (OSC) and the Environmental Research Institute at the University of the Highlands and Islands (ERI-UHI). The post will be based at the company's headquarters in Dunbar, East Lothian.

The post-holder will lead development of an integrated system for marine mammal mitigation from offshore developments (e.g. windfarm, oil & gas, harbour construction, etc.) on marine mammals. This work will involve design, research into component selection and sourcing, requirements for operations in different national jurisdictions, integrating the system components and instruments, and then testing and validating in the field.

The successful candidate will receive extensive practical and formal training, gain marketable skills, broaden their knowledge and expertise within an industrially relevant project, and gain valuable research and commercial experience from business and academic mentors.

Candidates should possess a Bachelor's and/or Master's degree in Electronic Engineering, or a related discipline. A PhD is not essential for this post, but an awareness of research would be an advantage. The candidate will be based in Dunbar and should be self-motivated with an ability to work independently to tight deadlines and prioritise workloads as client requests come in. A willingness to undertake field trials offshore is essential.

The ideal candidate must be able to communicate effectively with a range of stakeholders, e.g. academic and technical teams, sales and marketing personnel, existing company customers and potential new clients. Team working, flexibility and attention to detail will be key requirements.

Position Type: Full Time, Fixed Term, 30 months.

There may be opportunity for suitably motivated candidates to undertake an MRes or PhD in conjunction with this project.

Salary Range: £31,066 – £33,641.

The KTP Associate will also benefit from a Personal Development Budget of £5,000.

Informal enquires can be made to Dr Benjamin Williamson, leader of the ERI's 'Renewable Energy and the Environment' team: benjamin.williamson@uhi.ac.uk or Ms Sophie Cox, Consultant at OSC sc@osc.co.uk

Responsible to

Whilst working on company premises, report to and take direction from Sophie Cox.

Whilst working at the Environmental Research Institute (ERI-UHI), report to and take direction from Dr Benjamin Williamson.

Purpose of post

- Lead design, development, test and deployment of an integrated passive acoustic monitoring system.
- Facilitate knowledge transfer to Ocean Science Consulting Limited.
- Provide guidance and training as required to staff at Ocean Science Consulting Limited.
- Deal with problems that may affect the achievement of project objectives and deadlines.
- Carry out administrative tasks related directly to the delivery of the project and knowledge transfer.
- Develop technical and personal skills (verbal and written) as required with increasing responsibility as experience level develops through the duration of the project.

Principal duties

- Deliver project objectives as detailed in the KTP project proposal.
- Take a leading role in evaluating technical challenges from existing methodologies and the creation of a validated system for passive acoustic monitoring.
- Design and develop an integrated low-power sensor system.
- Technical requirements, challenges & recommended solutions report.
- Maintain an up-to-date project plan and provide progress reports for presentation at regular Local Management Committee (LMC) meetings.
- Deliver presentations to immediate project team members and technical experts.
- Any other duties that maybe reasonably be assigned by the Academic Supervisor / Company Supervisor.

Knowledge/Experience

- Knowledge and experience of electronics system design, sensor integration, prototyping and testing is essential;
- Creative thinking and vision with experience of designing and developing from prototype concept through to manufacturing;
- Interest in marine science or environmental applications would be advantageous;
- Knowledge of, or interest in, developing an understanding of regulations on Passive Acoustic Monitoring systems and associated guidelines would be desirable;
- Previous experience of managing large and complex projects covering multiple aspects is desirable;
- Commercial awareness or experience of working in or with industry is desirable; and,
- Demonstrable experience with time and budget management.

Skills

- Ability to work independently and within a dynamic and small team environment to meet tight deadlines;
- Excellent verbal communication and interpersonal skills to support interaction with a range of different stakeholders;
- Strong written communication skills to support drafting of technical reports, design documentation, training, publications, and marketing materials for a variety of audiences; and,
- Excellent project-management skills to ensure planned milestones are achieved.

Personal

- Self-motivated with an ability to undertake independent research and development;
- Willingness and ability to learn quickly in a fast-paced commercial environment;
- Ability to make informed decisions in a changing environment;
- Willingness to undertake offshore field trials would be desirable; and,
- Strong attention to detail.

Ocean Science Consulting Limited (OSC)

Incorporated in 2004, Ocean Science Consulting Limited (OSC) is a privately-owned international marine scientific research company that specialises in collection, analysis, and assessment of underwater noise and its impact on marine mammals and other wildlife, and the influence of offshore installations and other artificial structures on marine life. OSC supplies marine consultancy services during Environmental Impact Assessments (EIAs) for a number of sectors, including energy (renewables, oil & gas, and mining), construction, fisheries, aquaculture, government, and defence. OSC also publishes in high-level peer-reviewed scientific journals

The University of the Highlands and Islands (UHI)

UHI is based in the Highlands and Islands of Scotland, providing access to undergraduate and postgraduate study and research opportunities through a distinctive partnership of 13 colleges and research institutions with 40,000 students.

The Environmental Research Institute (ERI)

The ERI is part of North Highland College, Thurso, one of the academic partners of UHI. The ERI seeks to address and advance understanding of environmental issues through high-calibre research (including knowledge exchange), enterprise (including commercial and consultancy), learning and teaching, and outreach.

We use our proximity to outstanding natural resources combined with state-of-the-art facilities to build internationally recognised research capability. We address new societal and policy demands related to improving understanding of the natural environment, particularly in relation to offshore renewable energy, and to decarbonising modern society.

ERI Thematic Priorities

The ERI is focussed on the thematic priorities of:

- Renewable Energy and the Environment
- Carbon, Water and Climate
- Environmental Contamination and Ecological Health

And the cross-cutting of:

- Environment, Economy and Society

Renewable Energy and the Environment (REE)

The ERI is located close to many of Scotland's outstanding wind, wave and tidal energy resources, notably the Pentland Firth, the foremost tidal resource in the UK, and the Moray Firth, containing multiple offshore windfarms and many future ScotWind lease areas. Sustainable use of these resources will play a key role in achieving the Scottish Government's renewable energy and carbon emission targets.

The REE theme seeks to capitalise on our multi-disciplinary expertise to address environmental uncertainties and issues underpinning development of the renewable energy sector.

Our team exploits distinctive blends of in-situ measurement, environmental survey, experimental, modelling and remote-sensing approaches. These provide new insights that are relevant not only to renewable energy, but also to ecosystem functioning and anthropogenic impacts more generally within the fields of marine biology, behavioural ecology and oceanography.

As well as developing and disseminating environmental knowledge, we also aim to promote understanding of closely coupled social and economic issues. These relate to development of the region, including the relationship with other key sectors.

The REE theme comprises around 20 PhD students and researchers working across engineering, ecology, oceanography, marine sensing, modelling, robotics and socioeconomics. It is led by Dr Benjamin Williamson.

Renewable Energy and the Environment Activities

Innovative sensors and platforms – development and application of novel cross-cutting approaches and technologies to gaining new environmental insights including hydroacoustics, sensor fusion, computer vision, machine learning and big data.

Bio-physical and environmental interactions – understanding biological and ecological responses to changes in the marine (wind, wave, tidal) and terrestrial (wind, hydro) environments, together with oceanographic and hydrodynamic drivers of biodiversity, and environmental interactions around renewable energy devices.

Renewable energy resource assessment – field, modelling and remote sensing approaches to advance

understanding of tidal stream, wave, hydro and wind energy resources (temporally and spatially).

Movement ecology – understanding the behavioural ecology of key species using techniques such as telemetry, remote sensing and observation.

Energy vectors, storage, smart grids / micro grids – supporting optimal use of intermittent renewables into grid and off-grid applications, including remote communities and developing countries.

Economically and ecologically-sustainable energy transition and decommissioning – supporting the move to renewable sources, informing decommissioning and environmental / habitat considerations with pre- and post-decommissioning monitoring and pre- and post-consent monitoring.

REE is housed within the Centre for Energy and Environment, a state-of-the art facility with a dedicated research boat 'Aurora', modern offices, instrumentation and electronics laboratories, and workshops. Cutting-edge instrumentation includes hydroacoustics (multi-frequency echosounders, multibeam sonars), broadband ADCPs, AWACs, multi-frequency sidescan sonar, multi-sensor seabed observatories, ROVs, X-band radar, fish and seabird tracking tags and receivers, Waverider buoys, weather stations, and a large fleet of UAVs including RTK and high-payload water-landing hexacopters with multi-spectral imaging systems.

Key Terms and Conditions of Employment

Hours of Work	A full-time working week is one of 35 hours. This may include evening and weekend work, where required.
Holidays	A full year's holiday entitlement is 31 days. In addition, there are 14 days public holidays of which 10 are taken at Christmas and 2 at Easter, the remaining 2 are treated as floating.
Salary	To be negotiated within advertised range, i.e. £31,066 – £33,641
Location	The position will be based at OSC in Dunbar, Scotland although you may be required to work from other sites (i.e. ERI in Thurso) as appropriate to the duties.
Pension	You will be contractually enrolled into the Local Government Superannuation Scheme. Further details are available on joining.
References / PVG Scheme	For external candidates, appointment will be subject to references and admission to the PVG Scheme.

Guidance notes for candidates

Further information on the position

The ERI is part of the University of the Highland and Island's North Highland College. The following websites may be useful in providing further information.

The University of the Highlands and Islands:
http://www.uhi.ac.uk/

The North Highland College: http://www.northhighland.uhi.ac.uk/

The Environmental Research Institute: http://www.eri.ac.uk/

ERI's 'Renewable Energy and the Environment theme'
http://eri.ac.uk/research/themes/renewable-energy-and-the-environment/

'ERI Elements' – our newsletter, providing more information about what we do:
http://eri.ac.uk/category/eri-newsletters/

Ocean Science Consulting Limited: https://www.osc.co.uk/

For further information on this position, please contact:

Dr Benjamin Williamson
benjamin.williamson@uhi.ac.uk
http://eri.ac.uk/members/benjamin-williamson/

Sophie Cox
sc@osc.co.uk
https://www.osc.co.uk/team/sophie-cox/

Completing the Application Form

https://eri.ac.uk/wp-content/uploads/2022/05/KTP-Application-Form-Aug22.doc

Please read the application form thoroughly and complete it electronically (preferred) or in black ink. Please ensure that you complete all sections. Where answers require additional detail, this should be provided on a continuation sheet and attached to the form.

A current CV and covering letter should also be provided in addition to the application form. The information that you provide in your application form & other supporting information is the only information we will use in deciding whether or not you will be short listed for interview.

Your application will be treated in the strictest confidence.

References

Please give the name, address, telephone number and email address (if known) of two referees, including your existing or last employer, to whom reference may be made in support of your application concerning your professional ability and performance at work.

Please ensure your referees are able to respond promptly as no appointment will be made without receipt of satisfactory references.

References will only be taken up for short-listed candidates.

Please note that any offer of employment will be conditional upon receipt of satisfactory references from your current/last employer or academic institution, unless advised otherwise.

Submitting your application

Applications (preferably by e-mail) should be sent to NHCHR@uhi.ac.uk

Or: Human Resources, North Highland College-UHI, Ormlie Road, Thurso, Caithness, Scotland KW14 7EE.

We will acknowledge receipt of completed applications by e-mail. Written acknowledgement of completed applications will only be provided where requested and where a stamped addressed envelope is enclosed with your application for this purpose.

We will contact you concerning your application once shortlisting has been completed.

Key dates

Closing date: 5 September 2022. Interviews planned (online) 9 September 2022.

Initial interviews may be conducted by Microsoft Teams

Starting date for successful candidates: the position is available with immediate effect (subject to receipt of satisfactory references, right to work in the UK, and securing PVG Scheme membership via Disclosure Scotland), and required to start by 26 September 2022.