Research Assistant in Digital Transformation (Digitalisation Engineer & KTP Associate)
School of Engineering/Motive Offshore

Closing date: 16 January 2023
Interview date: To Be Confirmed
Reference number: ENG203RX
INTRODUCTION

_In collaboration with Motive Offshore, we have an exciting opportunity at the University of Aberdeen, with the School of Engineering for a Knowledge Transfer Partnership (KTP) Associate._

Company business area: Motive Offshore provides high quality marine equipment & associated services to the onshore & offshore Oil & Gas, Marine and Renewables sectors. Specialising in marine equipment fabrication & rental, Motive supplies equipment such as high-capacity winches, hydraulic power units, umbilical deployment & subsea apparatus, plus support services & personnel.

The School of Engineering at the University of Aberdeen is a research-intensive multidisciplinary academic unit engaged in fundamental and applied research and offering UG and PGT degree programmes across five Engineering disciplines: Chemical, Civil, Electrical and Electronic, Mechanical, and Petroleum. The School’s ambition is to be recognised as an international leader in engineering education, research and the application of knowledge to benefit society globally. The School’s research spans the main engineering disciplines across five Research Groups and five Research Centres (https://www.abdn.ac.uk/engineering/research/index.php) with over 100 PhD students. Within the 2021 REF period the Unit has increased substantially in size and in the scope of its research and 91% of the School’s research output was ranked as world leading or internationally excellent in REF2021. The increase in size and expansion in research capability have enabled the School to make substantial research contributions that address major societal challenges: environmental sustainability, the circular economy, renewable energy infrastructure and technologies, decarbonisation, carbon capture and utilisation, and energy transition.

JOB DESCRIPTION

MAIN PURPOSE OF THE ROLE:

The Associate’s main challenge related to the project lies in the development of digitalisation of the entire Motive product life cycle and associated digital analysis tools. A corollary challenge (and opportunity) in this regard is building the research infrastructure and alliances which will form the basis of future research in digitalisation and work transformation in the energy sector (oil and gas/renewables) and beyond.

Developing the new products will involve application of data science and engineering systems, which will be adapted to improve and develop new digital products at Motive Offshore. Alongside the data science element, the Associate will be expected to gain an intimate knowledge of the inner working of Motive Offshore’s operations, as well as the people within the company that will use the new products. They will also get detailed knowledge of the marine equipment side of the business.

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KEY RESPONSIBILITIES:

KTP Associate/ Research Assistant

- **Responsible for the continued development of new and existing products**

- **Research and development of new technology, frameworks, and methodologies to improve both internal processes and company offerings using the latest cutting-edge research in data science technologies to digitally transform the product base for Motive Offshore**

- **Delivery, planning and management of projects from conception to completion - engage with the company’s staff and stakeholders throughout the project to ensure that the technologies implemented are aligned with Motive Offshore’s requirements**

- **Engineering design of solutions to fit with the current products, qualitative data design, collection and analysis to support the integration of the new products into the company’s systems and user interface**

- **Creation of reliable, robust, and efficient software**

- **Project Management planning to successfully integrate the products into the workforce of both Motive Offshore and also its clients**

- **Creation of data analysis tools and dashboards**

- **Write, test, debug and document high quality code to create new features**

- **Develop strong working relations with key stakeholders – clients, colleagues etc.**

- **To be a positive ambassador for both Motive Offshore Group Ltd and the University of Aberdeen.**

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CANDIDATE BACKGROUND

We are looking for someone with expertise in Engineering, sensors and handling data, and experience of or interest in data science and/or computer science. Additionally, a keen interest or knowledge of the marine sector would be advantageous but most importantly we are seeking someone who is an excellent communicator, with an inquisitive and pro-active mind-set, capable of innovative thinking.
TERMS OF APPOINTMENT

Salary will be at £32,000 per annum.

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

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

This role is based in the UK and as such the successful candidate will be required to live and work in the UK.

This post meets the requirements to apply for a Global Talent Visa. Therefore, would welcome applications to this post from candidates who require a visa to work in the UK.

The candidate appointed to this post may be eligible for homeworking on an occasional or regular basis. This will depend on the quality of the working relationship that the postholder can establish, location of selected case studies and project requirements. For more information please refer to our Homeworking Policy.

AT A GLANCE

SALARY:
Off scale:
£32,000 per annum

HOURS OF WORK:
Full time, 37.5 hours

CONTRACT TYPE:
Funding Limited: 3 years

LOCATION:
Aberdeen/ Kintore
# Person Specification

## Education/Qualifications

**Academic, technical and professional education and training**

- *Degree in Engineering, Mathematics, Statistics, Computing Science or similar discipline*
- *MSc qualification in Engineering, Data Science, Statistics or similar postgraduate qualification*

## Work and Other relevant experience (including training)

**e.g. Specialist knowledge, levels of experience, supervisory experience, research**

- Experience of experimental design and data analysis
- Experience of developing software packages
- Experience of data management systems and programming in a high-level language
- Experience of sensors and their analysis
- Experience of Python, MySQL
- Experience of Javascript, HTML/CSS
- Experience of cloud computing platforms
- A strong interest in marine engineering
- Experience of project management

## Personal qualities and abilities

**e.g. initiative, leadership, ability to work on own or with others, communication skills**

- Able to communicate effectively with and to work with people at all levels, including academics, customers, technicians, sub-contractors and senior managers
- Able to demonstrate evidence of effective project team participation qualities and ability to provide support and motivation to team members.
- Able to work effectively under pressure and meet targets and delivery outputs within time and budget.
- Able to work flexibly and demonstrate a positive and
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<td><em>proactive approach to transformational change.</em></td>
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<td>• <em>Able to undertake independent research and to communicate this research comprehensively and accurately.</em></td>
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**Other**
e.g. special circumstances (if any) appropriate to the role such as unsocial hours, travelling, Gaelic language requirements etc.
The University of Aberdeen is a broad-based, research-intensive university, and we put students at the centre of everything we do. Outstanding in a wide range of discipline areas, Aberdeen is credited for its international reach and commercialisation of research ideas into spin-out companies. The University has over 16,000 matriculated students and 3,600 staff representing 130 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 and inspires.

**CURRENT CONTEXT**

The University continues to uphold the principals of the foundational purpose. We remain committed to delivering positive change both locally and globally. We work together and with our partners in an interdisciplinary way, catalysing world-leading research in our areas of strength: Energy Transition; Social Inclusion and Cultural Diversity; Environment and Biodiversity; Data and Artificial Intelligence; and Health, Nutrition and Wellbeing. We are investing in our future and have committed £100m to upgrading our campus, including the new fully digitised Science Teaching Hub, the regeneration of the historic King’s Quarter and a new Business School building. Our commitment to our students, campus and community has led to us being named a Top 20 UK institution in two major league tables¹ and 4th in the UK for overall student satisfaction².

¹ The Times and Sunday Times Good University Guide 2023 and the Guardian University Guide 2023
² National Student Survey (NSS) 2022
On our 525th anniversary as a University we launched Aberdeen 2040, our strategic vision for the next 20 years. Four strategic themes will shape our learning and discovery, underlined by 20 commitments we have made against each theme:

- **Inclusive**
  We welcome students, staff and partners from all backgrounds, organisations and communities. We value diversity.

- **Interdisciplinary**
  We innovate in education and research by generating, sharing and applying new kinds of knowledge. We learn together.

- **International**
  We connect with others and extend our networks and partnerships around the world. We think across borders.

- **Sustainable**
  We understand and nurture our environment, and take care of our resources, including our people and finances.

  We work responsibly.

**OUR EDUCATION**
Recognised as the Scottish University of the Year in the Times and Sunday Times Good University Guide 2019, we remain true to our roots as an ancient Scottish university, combining breadth and depth in our degree programmes and drawing strength from the quality of our research. Our flexible curriculum encourages students to grow as independent learners and therefore to thrive as graduates in the diverse workplaces of the future. Our education is open to all and we are setting ambitious targets to further widen access.

**OUR RESEARCH**
Researchers at the University of Aberdeen have been at the forefront of innovation and excellence throughout the centuries, generating insights in medicine, science, engineering, law, social sciences, arts and humanities. This research has contributed to five Nobel prizes as well as other awards such as the Queen’s Anniversary prize. Our research is intellectually rigorous working within our established areas of excellence as well as new methods of enquiry. We will continue to generate new knowledge addressing economic and societal issues with ambition and imagination, ensuring that it is globally excellent and locally relevant.

**INTERNATIONAL**
Aberdeen is increasing its international presence, positioning the University as a global organisation and building on established global partnerships around the world, including Qatar, China, North America, Europe. We feature in the top 50 institutions worldwide for international students.

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1 Times Higher Education World University Rankings 2021

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IMPACT

In 2020 the University signed the United Nations Sustainable Development Goals accord, solidifying our commitment to developing the world in a sustainable way. In 2022 we were listed in the global Top 100 for 8 of these goals⁴.

Our highly cited work in zero-carbon technology and global outlooks makes us Scotland’s best institution for environmental research⁵.
Scotland’s third largest city, Aberdeen sits on the coast between the mountains of Aberdeenshire and the stunning North Sea coastline. The Aberdeen City region is a can-do place that is actively investing, at scale, in its future.

Renowned as a Global Energy Hub, Aberdeen is a vibrant, entrepreneurial region, home to a unique mix of business opportunities and specialist skills across various sectors including energy, technology, life sciences and food & drink. More than 20% of Scotland’s top businesses are located in this region which is taking great strides to ensure that it continues to compete on a world stage. Investments of more than £10 billion of public and private infrastructure is due to be delivered before 2030, marking an exciting time to be part of a genuine world-class location.

Built from sparkling local granite Aberdeen has earned the name of the Silver City. As the energy capital of Europe, Aberdeen nevertheless retains its old-fashioned charm and character making it an attractive place in which to live, work and study. Due to its global business and international energy industry credentials, Aberdeen is well served by local and national transport infrastructure with excellent rail networks that run both North and South of Scotland and the rest of the UK. It also acts as an international travel hub. Flying time to London is just over one hour with regular daily flights and serves international travel to European centres such as Amsterdam (Schiphol) and Paris (Charles de-Gaulle) as well as flights to other European destinations.

The City and the surrounding countryside provide a variety of urban, seaside and country attractions. Aberdeen has first class amenities including His Majesty’s Theatre, Music Hall, Art Gallery, the P&J Arena, Museums, and Beach Leisure Centre. The City is framed by its accessible beach front which is within a short walk of the city centre and there are an array of activities available across the region such as hill walking; mountaineering; sailing; surfing; salmon, trout and sea fishing; golf; sailing; surfing and windsurfing. The surrounding countryside, known as Aberdeenshire, is also 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.

The city and the surrounding area have ranked consistently highly in nationally recognised quality of life surveys, coming out top 10 as one of the best places to live in Scotland in 2020 in the annual Bank of Scotland survey.

To find out more visit www.visitabdn.com
EQUALITY AND DIVERSITY

The University values a diverse working environment and recognises the benefits this can bring. The University is keen to receive applications from individuals from across all of the equality protected characteristics (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, sexual orientation).

The University supports opportunities for flexible working for a range of reasons and has policies in place to facilitate this. The policies can be found at https://www.abdn.ac.uk/staffnet/working-here/flexible-working--5607.php.

The University’s commitment to gender equality has been recognised through the achievement of an Athena SWAN Bronze award at an institutional level and across all its subject areas. The University is also a Stonewall Diversity Champion to further LGBT+ equality.

The University is signed up to Advance HE’s Race Equality Charter, affirming the University’s commitment to the charter’s aim of improving the representation, progression and success of minority ethnic staff and students within higher education.

Candidates who are British Sign Language (BSL) users can contact us directly by using contact SCOTLAND-BSL.

The University is delighted to be accredited as a Disability Confident employer and strives to ensure that disabled staff and students have the opportunity to work and study in an inclusive, accessible and supportive environment.

www.abdn.ac.uk/staffnet/governance/equality-and-diversity-277

HOW TO APPLY

Online application forms are available at www.abdn.ac.uk/jobs

The closing date for receipt of applications is 16 January 2023

Should you wish to make an informal enquiry please contact:

Dr Andrew Starkey
a.starkey@abdn.ac.uk
or
Ed Blissitt
Edward.blissitt@motive-offshore.com

Please do not send application forms or CVs to Dr Starkey or Ed Blissitt.

Please quote reference number ENG203RX on all correspondence.

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