



#### JOB DESCRIPTION:

<b>Research Centre</b>	Water Institute
<b>Post Title</b>	Post-Doctoral Researcher in Marine Sensing and Data Analysis
<b>Level on Framework</b>	Level 1
<b>Post Duration</b>	5 Month Fixed Term Contract

#### **Dublin City University:**

Dublin City University [www.DCU.ie](http://www.DCU.ie) is a young, ambitious and vibrant University, with a mission 'to transform lives and societies through education, research, innovation and engagement'. Known as Ireland's 'University of Enterprise and Transformation', it is committed to the development of talent, and the discovery and translation of knowledge that advances society and the economy. DCU is the Sunday Times Irish University of the Year 2021.

The University is based on three academic campuses in the Glasnevin-Drumcondra region of north Dublin. It currently has more than 18,000 students enrolled across five faculties – Science and Health, DCU Business School, Computing and Engineering, Humanities and Social Sciences and DCU Institute of Education. DCU is committed to excellence across all its activities. This is demonstrated by its world-class research initiatives, its cutting-edge approach to teaching and learning, its focus on creating a transformative student experience, and its positive social and economic impact. This exceptional commitment on the part of its staff and students has led to DCU's ranking among the top 2% of universities globally. It also consistently features in the world's Top 100 Young Universities (currently in QS Top 70 Under 50, Times Higher Top 150 Under 100).

DCU is placed 84th in the world, in the Times Higher Education University Impact Rankings – measuring higher education institutions' contributions towards the UN Sustainable Development Goals. Over the past decade, DCU has also been the leading Irish university in the area of technology transfer, as reflected by licensing of intellectual property.

#### **DCU Water Institute:**

The Water Institute is a cross-faculty initiative of research and education on water. It aims to work with all stakeholders – a quadruple helix of academia, industry, agency and society in its research and development work. Through research and capacity building, the WI develops solutions to national and global problems in water. Specializing in technology developments across science, engineering and computer science domains with strong communications focus and policy and business drivers. These areas are reflected in our academic members in DCU – across all faculties of the University.

**Research Career framework:**

As part of this role the researcher will be required to participate in the DCU Research Career Framework. This framework is designed to provide significant professional development opportunities to researchers and offer the best opportunities in terms of a wider career path. DCU has a strong track record in attracting both Irish and European Union research funding under Horizon 2020 (and all previous Framework Programmes), Marie Curie Actions and Erasmus. We offer a dynamic and internationally-focused environment in which to advance your academic career.

**Background & Role Profile:**

The post-doctoral researcher will join a multidisciplinary research team working towards the development of novel marine sensing technology. The project's goal is the development of low cost optical sensing probes for the detection of pollution events in the marine environment. The researcher will have skills in problem solving, analytical science or metrology, marine science or related fields. The candidate will work closely with the team members in the Water Institute (physicists, mechatronic engineers and environmental scientists) but also with the industrial partner. The candidate will be responsible for validation and quality control aspects of the sensor development, testing and deployment as well as following Ocean Best Practice guidelines.

**Duties and Responsibilities:**

Reporting to the project PI, the researcher will:

- Conduct the specified work and follow project plan and ensure key deliverables are met
- Manage and implement the data management plan and all quality control processes for the term of the project
- Deliver research outputs and provide bi monthly, biannual reports and consortium presentations according to project management schedules
- Contribute to the production of top-quality progress reports, conference and journal publications
- Report on progress at meetings and in writing
- Encourage, lead and work with team members
- Carry out administrative work associated with the programme of research as necessary.

**Qualifications and Experience:****Essential Criteria**

- The post will require a researcher who holds a PhD in a relevant field such as analytical science, metrology, data analysis, environmental decision support and machine learning or a related discipline.
- Ability to demonstrate a sound comprehension of the principles underpinning the theory and practice of evaluation, research design and data analysis.
- High level competence in written and oral communication, and social skills necessary for productive collaboration.

**Candidates will be assessed on the following competencies:**

- **Discipline knowledge and Research skills** – Demonstrates knowledge of a research discipline and the ability to conduct a specific programme of research within that discipline and in collaboration with industry partners.
- **Understanding the Research Environment** – Demonstrates an awareness of the research environment (for example funding bodies and key industry players) and the ability to respond to demands
- **Managing & Leadership skills** - Demonstrates the potential to manage a research project including the supervision of undergraduate and post-graduate students and to meet industry partner expectations regarding project turn-around times.

**Essential Training:**

The post holder will be required to undertake the following essential compliance training: Orientation, Health & Safety and Data Protection (GDPR). Other training may need to be undertaken when required.