



Research Centre:	DCU Water Institute
Post title:	Post-doctoral researcher (Optical sensor development)
Level on Framework:	Level 1
Post duration:	Fixed Term Contract up to 19 Months

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 team working on the development of Advanced Environmental Decision Support Systems for Coastal Areas using distributed, autonomous, real-time sensor systems. The project's goal is the development of low cost optical sensing probes for the detection of pollution events in the marine environment. The post-doctoral researcher will work closely with the team members in the Water Institute (engineer and environmental scientist) but also with the industrial partner to integrate the data analytics and to validate the decision support tool. The post-doctoral researcher will be responsible for the design, development and testing of a new optical head for the low cost sensor and for setting-up a framework for the characterization of optical components.

Duties and Responsibilities:

Please refer to the job description for a full list of duties and responsibilities associated with this role.

Qualifications and Experience:**Essential criteria:**

The post will require a researcher who holds a PhD in a relevant field such as physics, engineering, photonics, optoelectronics, optical sensors or a related discipline.

Desirable Criteria:

- Broad experience in optical spectroscopy
- Experience in programming and communication with laboratory instruments (C++, MatLab, LabView or similar) and specific optical design software.
- Good analytical skills and computer skills.
- Evidence of excellent organizational and communication skills.
- Evidence of excellent time management skills.
- Experience with sensor systems for water monitoring is an asset.
- High levels of initiative, self-management, achievement-orientation, and motivation are encouraged.

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.

Understanding the Research Environment – Demonstrates an awareness of the research environment (for example funding bodies) and the ability to contribute to grant applications.

Communicating Research – Demonstrates the ability to convey their research with their peers and the wider research community (for example presenting at conferences and publishing research in relevant journals) and the potential to teach and tutor students.

Managing & Leadership skills - Demonstrates the potential to manage a research project including the supervision of undergraduate students.

Salary Scale: Point 1 of the Postdoctoral Researcher Scale: €38,632

Appointments will be commensurate with qualifications and experience and will be made on the appropriate point of the salary scales, in line with current Government pay policy.

Closing Date: Monday 21st of September 2020

Informal enquiries should be directed to:

Professor Fiona Regan, Director, Water Institute, DCU, Dublin 9, Ireland.

E-mail: Fiona.regan@dcu.ie

Tel: 01 700 5765

Please do not send applications to this email address, instead apply as described below.

Application Procedure

Application forms are available from the DCU Current Vacancies website at <https://www.dcu.ie/hr/vacancies/current.shtml>.

Applications must be submitted by e-mail to hr.applications@dcu.ie

Please clearly state the role that you are applying for in your application and email subject line: Job Ref #RF1409 Post-doctoral researcher (Optical sensor development)

Dublin City University is an equal opportunities employer and is committed to promoting gender equality reflected in its attainment of the Athena SWAN Bronze Award. Information on a range of university policies aimed at creating a supportive and flexible work environment are available at www4.dcu.ie/policies/policy-starter-packs.shtml.