



JOB DESCRIPTION

Research Assistant (Electrochemical Treatment of Wastewater)

National Centre for Sensor Research

Part Time – Fixed Term Contract 6 Months

Dublin City University

Dublin City University (DCU) 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’, DCU is a values-based institution, committed to the delivery of impact for the public good. DCU was named Sunday Times Irish University of the Year 2021.

DCU is based on three academic campuses in the Glasnevin-Drumcondra region of north Dublin. More than 18,000 students are 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 delivering a transformative student experience, and its positive social and economic impact. The university continues to develop innovative programmes in collaboration with industry, such as the DCU Futures suite of degrees, which are designed to equip graduates with the skills and knowledge required in a rapidly evolving economy.

DCU’s pursuit of excellence has led to its current ranking among the top 2% of universities globally. It is also one of the world’s Top Young Universities (QS Top 100 Under 50, Times Higher Top 150 Under 100). In the Times Higher Education University Impact Rankings 2021, DCU ranked 23rd in the world for its approach to widening participation in higher education and its ongoing commitment to eradicating poverty, while it ranks 38th globally for its work in reducing inequality and 89th globally for gender equality.

The university is ranked 23rd in the world and first in Ireland for its graduate employment rate, according to the 2020 QS Graduate Employability Rankings. Over the past decade, DCU has been the leading Irish university in the area of technology transfer, as reflected by licensing of intellectual property.

Background & Role

The NCSR is developing a new, wireless electrochemical approach to the decomposition and destruction of challenging pollutants in water ranging from pharmaceutical and metabolites to food

waste. We are seeking a Research Assistant with a BSc in Chemistry or a closely related subject and with an interest in electrochemistry and electrochemical methods of wastewater treatment. The Research Assistant will join a multidisciplinary research team working to create, optimise and test a 3D printed reactor.

Duties and Responsibilities Reporting to the Principal Investigators (PIs), the researcher will fulfil the duties which will include, but not be limited to:

- Assist the PIs on project planning to ensure all milestones and deliverables are met particularly the 3D printing of the reactor and testing with wastewater samples.
- Provide weekly updates and a monthly written report on progress.
- Compile, analyse data generated in the project on an ongoing basis.
- Produce a full report and presentation at the end of the contract.
- Support the team's ongoing communication and dissemination efforts including social media and project website.
- Engage with internal and external stakeholders.
- Carry out a landscaping exercise on patents on the topic and support the team's protection of intellectual property efforts.

Applicant Requirements:

Essential Criterial

- The successful candidate must have an honours primary degree in chemistry or a very closely related area.
- Laboratory experience in electrochemical methods or related closely related area.
- A demonstrated strong work ethic, as well as an independent and creative mind set and a deep commitment to problem-solving.
- Excellent interpersonal skills as well as verbal and written communication skills.
- Very good organisational skills with an ability to prioritise workloads and to work successfully on their own initiative.

Desirable Criteria. The successful individual will ideally possess the following:

- Postgraduate qualification or experience or working on a research programme.
- The candidate should ideally be familiar with electrochemistry, wastewater treatment and reactor optimisation.
- The ability to work as part of a collaborative team and to innovate in an organisational environment with multiple stakeholders.
- An interest in commercialisation, innovation, and real-world deployment of reactors.

Essential Training

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