



2 x PhD positions in Microfluidic Sensors for Water Analysis

School of Chemical Sciences and Water Institute

The School of Chemical Sciences at Dublin City University (DCU) (www.dcu.ie) is inviting applications from qualified candidates for **two fully-funded four-year PhD positions** in the area of microfluidic-based sensing technology for analysis of contaminants in water.

About the Project

The aim of the project is to develop portable sensors for performing fast, sensitive and in-situ water analysis. Specifically, these sensors will be based on centrifugal microfluidic technology coupled to low-cost detection systems (such as smartphone cameras) for on-site analysis of key polycyclic aromatic hydrocarbons (PAHs) and microplastics present in urban waters. Skills in the area of microfluidics, microfabrication, nanomaterials, analytical method development, and detection techniques such as colorimetry, chemiluminescence and infrared/UV-visible spectroscopy, will be obtained in this project through hands-on experience. These scholarships are supported by a EU Horizon Europe project where DCU will be part of an International Consortium, therefore candidates will have the opportunity to work in collaboration with academic, business and end-user partners across Europe. This project will be carried out under the umbrella of the Water Institute (WI) (www.dcuwater.ie) which will also allow the candidates to work within a network of researches with widely demonstrated expertise in water analysis and environmental monitoring.

What is offered

These scholarships will cover DCU's PhD fees (EU Level) and a stipend of €18,500 per annum for up to four years. This project also includes a significant budget for laboratory consumables and travel to conferences and meetings.

What is required

The successful candidates will be highly motivated to do a PhD in the area of microfluidic sensors, and have the ability to work well independently and as part of a team as required to meet the project objectives. They should have (or expected to get) an Honours Bachelor degree in Chemistry, Engineering, or any other related subject. Knowledge in microfabrication and system integration would be an advantage. It should be noted that the award is contingent on the applicant meeting all the requirements for admission to doctoral studies at DCU (see <https://www.dcu.ie/registry/making-postgraduate-research-application> for more details).

How to apply

Applicants are requested to send their CV (including the name of two referees) and a cover letter indicating why they are interested in one of these PhD positions directly to **Dr Mercedes Vázquez** by email (mercedes.vazquez@dcu.ie). Interested candidates are encouraged to contact her for informal discussion and questions prior to their application. Applications are currently open till **Wednesday, 25th May 2022**.