Research Centre
Insight Centre for Data Analytics- Adaptive Sensors Group,
Dublin City University

Post Title
Research Assistant, Microfluidics Fabrication, Systems Integration & Rapid Prototyping

Post Duration
Fixed Term Contract up to 12 months

Background
Dublin City University (www.dcu.ie) is a research intensive, globally engaged, dynamic institution which has developed its own research specialists, established internationally recognized centres of excellence that have substantive collaborative links with leading universities and industrial partners. DCU is distinguished both by the quality and impact of its graduates and by its focus on the translation of knowledge into societal and economic benefit. Through its mission to transform lives and societies through education, research and innovation DCU acts as an agent of social, cultural and economic progress. DCU is Ireland’s fastest growing university and now hosts more than 17,000 students across its three academic campuses: DCU Glasnevin Campus, DCU St Patrick’s Campus and CU All hallows campus. 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.

The Project
The Adaptive Sensors Group (ASG, is a, multidisciplinary research unit hosted by the National Centre for Sensor Research (www.NCSR.ie), in state-of-the-art facilities situated on the campus of Dublin City University. Core funding for the ASG is provided by Science Foundation Ireland through the INSIGHT Centre (https://www.insight-centre.org/insight-at-dcu). This role will focus on the development of customisable Platform for health monitoring using a combination of electrochemical sensors and 3D Printed Microfluidics.

The Role
The successful candidate will play a substantial role in the design and fabrication of sensing units including the materials employed in the fabrication process, integration of optical electrochemical and electronic components, as well as support for the characterisation and performance of prototypes for use in real world scenarios. He/she will contribute to the group’s overall research effort in autonomous instruments. He/she will join a multidisciplinary team that functions on the basis of mutual support across a range of projects, drawing on combined team expertise in mechanical/electronic engineering, computer science, wireless communications, web database management, environmental science, materials science, and analytical chemistry.

Main Duties and Responsibilities
Reporting to the Principal Investigator, Professor Dermot Diamond and also Dr. Margaret McCaul, he/she will:
• Play a substantial role in boosting the engineering effort of the ASG
• Participate in meetings with the interested parties (e.g. end-users, external industry and academic partners) and assist in promoting the technology being brought to market (e.g. conferences and tradeshows).
• Attend, and contribute to, group meetings

Skills
• Excellent written and verbal communication and social skills.
• Proven ability to prioritize workload and work to strict deadlines.
• Ability to work in a team and to take responsibility to contribute to the overall success of the team.
• Strong problem solving abilities.

Qualifications, Experience and Qualifications
Candidates should have work/postgraduate experience in which rapid prototyping played a significant element and ideally a primary degree in mechanical, electronic mechatronic or chemical engineering. Expertise in systems integration, 3D CAD/CAM design, and familiarity with fabrication techniques will be important. Experience in polymer handling, electronics and microcontroller programming is desirable.

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