



Applications are invited from suitably qualified candidates for the following position:

<b>Research Centre</b>	School of Mechanical and Manufacturing Engineering
<b>Post title</b>	Research Masters on <i>"Life Cycle Assessment of nano-enabled surfaces and coatings applications"</i>
<b>Post duration</b>	Fixed Term Contract 24 Months
<b>Required start date</b>	April 1 <sup>st</sup> 2022
<b>Closing date for applicants</b>	May 31 <sup>st</sup> 2022

#### **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.

#### **The project**

The NewSkin project ([newskin-oitb.eu](http://newskin-oitb.eu)) is a Pan-European collaboration of 35 academic and industry partners. The project aims to create an Open Innovation Test Bed (OITB) to provide the Innovation Ecosystem (IE) with the necessary technologies, resources and services to uptake efficient and cost-effective innovative processes to manufacture nano-enabled industrial and consumer products as well as the necessary testing capabilities to demonstrate the features of nano-enhanced goods.

## **The role**

This position is for a 2-year post-graduate researcher who will be recruited on a fixed term contract basis. The successful candidate will be responsible for the selection suitable set of case studies from the suite of NewSkin applications with the objective of translating improvements in function and mechanical properties of product coatings into measurable end-user benefits. This will be achieved by conducting life cycle assessments, and where appropriate Levelised Cost of Energy (LCoE) analysis of selected product systems.

## **Principle Duties and Responsibilities**

The specific duties of this post include but are not limited to:

- Coordinate data exchange with relevant project partners
- Develop partner-specific data acquisition templates
- Develop LCA and LCoE models for selected systems
- Carry out documentation and reports for project deliverables in a timely manner
- Attend project meetings and workshops
- Submit final report
- Publish study findings in a relevant peer-reviewed journal

## **Minimum criteria**

Applicants should have an undergraduate degree in mechanical or mechatronic engineering, or equivalent (minimum 2.1).

In addition to the above, it is desirable that the candidate possess a subset of the following skills.

- Experience or training in conducting life cycle assessment
- Familiar with GaBi software or other LCA software packages
- Excellent written and oral proficiency in English (essential)
- Excellent written and verbal communication and interpersonal skills
- Proven ability to prioritise workload and work to strict deadlines
- Ability to work independently
- Strong problem solving abilities

## **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.

## **Informal Enquiries in relation to this role should be directed to:**

Dr. Greg McNamara, School of Mechanical and Manufacturing Engineering, Dublin City University.  
Phone + 353 (0)1 7005243

Email: [greg.mcnamara@dcu.ie](mailto:greg.mcnamara@dcu.ie)

**Note:** The successful candidate will be required to meet eligibility requirements for DCU research degree programmes

