



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

**Postdoctoral Researcher
I-Form, Advanced Manufacturing Research Centre
Fixed Term Contract – 2 years**

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. The role may include teaching duties to assist with module delivery.

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.

I-FORM Advanced Manufacturing Research Centre: The I-FORM Advanced Manufacturing Research Centre has been established by Science Foundation Ireland (SFI) to deliver high-impact, innovative science and engineering research. I-FORM has particular focus on additive manufacturing ('3D printing') combined with advanced digital technologies applied in a precision manufacturing environment, see <http://www.i-form.ie/>

The Centre brings together a multi-disciplinary team of over 80 PhD and Post-Doc researchers in manufacturing engineering, materials and data science, in a cross-disciplinary and translational research environment. I-FORM operates in close collaboration with a global network of companies and collaborators.

The Project

I-Form Advanced Manufacturing Research Centre are seeking a Post-Doctoral Researcher to work on a project that will develop a detailed database for Additive Manufacturing (AM), mapping materials, process and product variables for metal Additive Manufacturing. For this, a range of materials will be used for characterisation, process monitoring and post process characterisation.

The Role

The primary focus of the Postdoctoral Research (PDR) will be performing research on an SFI I- Form targeted company project. In this project the research will develop a data base of the metal Additive Manufacturing process parameters and corresponding properties of the produced metal components. This includes the development of a detailed database mapping materials, process and product variables for metal Additive Manufacturing. For this, a range of materials will be used for characterisation, process monitoring and post process characterisation. Produce sample part properties that will be measured include microstructure, phase mapping, micro-hardness and nano-hardness, as well as some macro-scale properties.

Principle Duties and Responsibilities

Please refer to the Job Description for a full list of duties associated with this role.

Qualifications, Skills and Experience Required:

Applicants should have a PhD in a discipline relevant to material characterisation and manufacturing process monitoring techniques. Applicants must have a broad knowledge of materials processing and characterisation technologies. It is preferable for the candidate to have experience with additive manufacturing. Experience with data analysis, data base development and sharing will be sought.

The team is looking for high performance, aspiring applicants with a desire to discover new knowledge and to drive forward advanced manufacturing technologies. Applications are invited from suitably qualified graduates with the specific related backgrounds noted above.

Mandatory Training

Post holders will be required to undertake the following mandatory compliance training: GDPR, IP, and Health and Safety training. Other training may need to be undertaken when required.

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 communicate 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: *€37,874.00 – €49,048.00

* 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: 20th March 2020

Application Procedure

Informal enquiries to:

Prof Dermot Brabazon, Beng, PhD, Ceng, FIMechE, MIEI, MIO3, Director of Advanced Processing Technology Research Centre. Email: Dermot.brabazon@dcu.ie Phone: (01) 7008213.

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 (open Competitions) website at <http://www.dcu.ie/vacancies/current.shtml> and also from the Human Resources Department, Dublin City University, Dublin 9. Tel:+353 (0) 1 7005149.

Please clearly state the role that you are applying for in your application and email subject line: Postdoctoral Researcher, School of Mechanical & Manufacturing Engineering.

Applications should be submitted by email to hr.applications@dcu.ie or by Fax: +353 (0)1 7005500 or by post to the Human Resources Department, Dublin City University, Dublin 9.

Please clearly state the role that you are applying for in your application and email subject line: Job Reference #RF1348 Postdoctoral Researcher – Additive manufacturing

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.