Research Unit: Advanced Processing Technology Research Centre
Research Lab: Déantús
Post title: Postdoctoral Researcher
Post duration: 3 Years

Research Career Framework
As part of this role the researcher will be required to participate in the DCU Research Career Framework [http://www.dcu.ie/hr/ResearchersFramework/index.shtml]. This framework is designed to provide significant professional development opportunities to Researchers and offer the best opportunities in terms of a wider career path.

Background
Dublin City University (DCU) is one of the largest universities in Ireland. Its student population is approximately 13,000, including 500 research postgraduates and over 1,800 taught postgraduate students, plus around 3,000 distance education students. DCU is a research-led university 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 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.

Déantús Advanced Manufacturing Research Centre: The Déantús Advanced Manufacturing Research Centre has been established by Science Foundation Ireland (SFI) to deliver high-impact, innovative science and engineering research. Déantús - ‘manufactured’ in Irish - has particular focus on additive manufacturing (‘3D printing’) combined with advanced digital technologies applied in a precision manufacturing environment, see [http://www.deantus.ie/].

The Centre brings together a multi-disciplinary team of over 70 PhD and Post-Doc researchers in manufacturing engineering, materials and data science, in a cross-disciplinary and translational research environment. Déantús operates in close collaboration with a global network of companies and collaborators. Algorithms (incl. design of experiments) is a requirement for this position.
**Principle Duties and Responsibilities**

**Project : Implementation of state of the art and beyond state of the art Open Metal AM system**

This project will involve the commissioning of new Open Metal AM equipment, including hardware and software control. The process control of the developed system will be optimised. This includes the examination of part design (CAD design), laser scan strategies, powder properties, in-situ and ex-situ sensing methods and process control for improved metal AM process development.

Experience of system optimisation and algorithms (incl. design of experiments) is a requirement for this position.

**Minimum Criteria**

Applicants should have a PhD and/or relevant experience in materials science and mechanical engineering. Previous experience in additive manufacturing and system control for additive manufacturing is preferable.

**Salary:** *€36,488 – €47,255*  
*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:** Friday, 01 September 2017

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.

**Communication 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/postgraduate students.

**Application Procedure**

**Informal enquiries to:**  
Professor Dermot Brabazon, School of Mechanical & Manufacturing Engineering  
E-mail: Dermot.brabazon@dcu.ie, Phone: +353 (0)1 700 8213  
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: Job Ref#630: 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.

*Dublin City University is an equal opportunities employer*