Faculty of Engineering & Computing  
School of Mechanical & Manufacturing Engineering  
Post-Doctoral Researcher ICMR (Level 1)  
(12 Month Fixed Term Contract)  
To commence: 1st October 2012

The Enterprise Process Research Centre in the School of Mechanical and Manufacturing Engineering is working with the Irish Centre for Manufacturing Research on BreakCycle, a project to develop a Rapid Modelling capability to assist the improvement of Cycle Time and Efficiency in production systems. An ontology for the description has been developed, and needs to be implemented in a form which enables its use on local and cloud platforms. Companies involved in this work include INTEL, Boston Scientific, Bombardier, Seagate, and DePuy. This project is funded by Enterprise Ireland and the IDA.

Applications are invited from suitably qualified candidates for the position of Postdoctoral Researcher on the BreakCycle Project. The successful candidate will be qualified to PhD level in the area Discrete Event Simulation of Manufacturing Systems, with experience in dealing with manufacturing engineers and managers in industry. They will have demonstrated their ability to develop new approaches to automated modelling and should be skilled in both DES software packages and software development tools such as Python, Javascript and Web applications. Experience in preparing and delivering training in both the academic and industrial environment is also essential.

Role:
The post-holder will be responsible for the development of a new approach to the development of discrete event simulation models for complex manufacturing systems. Reporting to the project PI and the Programme Manager from the ICMR, this role requires the ability to design and implement systems which can collate, manipulate and manage the data required for DES in both automated and user-driven modes. Development will be based on open source software. In this role the successful candidate will also be required to interact with ICMR companies, prepare material for publication and training and undertake smaller “case-study” activities with industry to ensure the effectiveness of the solutions developed.

As part of this role the successful candidate shall 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.
Candidates for the position of Postdoctoral Researcher 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.

**Informal enquiries to:**
Dr Paul Young, School of Mechanical & Manufacturing Engineering, DCU.
E-mail: paul.young@dcu.ie Tel: +353 (0)1 700 8216

**Salary:** €37,750 - €40,003 per annum
*Subject to experience and qualifications*

**Closing date:** Tuesday 14th August 2012

**Application Procedure:**
Application forms are available from:
[www.dcu.ie/vacancies/APPLICATION_FORM_8pg.doc](http://www.dcu.ie/vacancies/APPLICATION_FORM_8pg.doc) and from the Human Resources Department, Dublin City University, Dublin 9. Tel: +353 (0)1 700 5149; Fax: +353 (0)1 700 5500; Email: hr.applications@dcu.ie

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