Faculty of Engineering & Computing
School of Mechanical & Manufacturing Engineering

Postdoctoral Researcher on Laser Processing of Metallic Materials
Temporary contract until 30th October 2013

Background & Role

The successful applicant will join the multidisciplinary Advanced Processing Technology research group in the School of Mechanical and Manufacturing Engineering to work in liaison with current researchers on:

- Undertaking leading edge research on the laser shot peening process
- Support future research and funding initiatives
- Working alongside and supervising undergraduate and postgraduate students working in this area

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.

Principle Duties and Responsibilities

Reporting to his/her Principal Investigator the Postdoctoral Researcher will:

- Conduct a specified programme of research on laser shot-peening under the supervision and direction of the Principal Investigator, Dr. Dermot Brabazon.
- Engage in the reporting of the results of the research in which he/she is engaged with the support of and under the supervision of the Principal Investigator.
- Engage in appropriate training and development opportunities as required by the Principal Investigator, the School or Research Centre, or the University.
- Engage in teaching and teaching support as assigned by the Head of School under the direction of the Principal Investigator.
- Liaise with both internal and external stakeholders including industry and academic partners/collaborators.
- Assist in identifying and developing future research and funding initiatives.
- Carry out administrative work associated with the programme of research as necessary.

Eligibility Criteria

Essential requirements:
- Applicants should have a PhD on laser processing of metallic alloys.
- Experience with CAD and system design;
- Experience with system assembly, integration, and control

Desirable requirements:
- Setting up galvanometer in the laser system for the project
- Process parameter mapping with design of experiments
- Physical characterisation of laser processed samples, e.g. metallography, hardness, residual stress,
- Data acquisition from the system and use of LabVIEW control software

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: €37,750 - €38,860 per annum

Closing date: 1st February 2012

It is expected that interviews will take place in the week commencing 12th February 2012.

Application Procedure

Application forms are available from:
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
Email the completed application form, together with your CV, to: hr.applications@dcu.ie

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