



**Postdoctoral Researcher in Photonic Systems
School of Electronic Engineering
Research Framework – Level 1
Up to 48 Month Fixed Time Contract**

Research Career Framework

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.

Background & Role

Dublin City University (www.dcu.ie) is a research-intensive, globally-engaged, dynamic institution that 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.

The School of Electronic Engineering is seeking to appoint a highly motivated Postdoctoral Researcher to undertake leading edge research in the domain of high speed optical communication systems. The successful applicant will join a multidisciplinary team to work in liaison with current researchers on the development of high capacity photonics systems for applications such as data centre interconnects and coherent optical communications.

Principal Duties and Responsibilities

Reporting to his/her Principal Investigator the Research Fellow will:

- Conduct a specified programme of research under the supervision and direction of the Principal Investigator. The programme of research will involve investigating the use of novel optical sources including fast tuneable lasers and optical frequency combs for a number of applications including;
 - high capacity optical switching fabrics for future data centre interconnects,
 - fast reconfigurable optical networks employing advanced modulation formats,
 - high capacity WDM optical transmission systems employing frequency combs
- Assist in identifying and developing future research and funding initiatives.
- Engage in the dissemination of the results of the research in which he/she is engaged with the support of and under the supervision of the Principal Investigator.
- Assist with the supervision of PhD students, researchers, internship students, and project students working in the area of photonic systems.
- 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.
- Carry out administrative work associated with the programme of research as necessary.

Minimum Criteria

Applicants should have a PhD in Physics or Electronic Engineering. In addition, it is desirable that the candidate has relevant postdoctoral experience in the following areas:

- Reconfigurable optical networks
- Coherent optical communication systems
- Optical frequency combs
- Fast tuneable lasers
- Digital Signal Processing for coherent optical systems
- Experimental test-beds for photonic systems

Salary: €44,266 - € 48,205

Closing date: April 8th, 2019

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.

Informal enquiries to:

Prof. Liam Barry, School of Electronic Engineering, DCU, Dublin 9

E-mail: liam.barry@dcu.ie

Phone: +353 (0)1 7005431

Application Procedure

To apply for this role, 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 #1158 Research Fellow in Photonic Systems

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. Human Resources Department, Dublin City University, Dublin 9. Tel: +353 1 700 5149; Fax: +353 1 700 5500 Email: Insert hr.applications@dcu.ie

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