Research Unit: School of Electronic Engineering
Research Lab: Performance Engineering Lab
Post title: Research Fellow
Level on Framework: Level 2
Post duration: 12-36 months Fixed Term Contract

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](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.

The Performance Engineering Laboratory (PEL) at DCU is a research group which aims at developing performance-based solutions for next generation information and communication technology (ICT) systems. The research carried out in this lab combines engineering research in the areas of Mobile and Wireless Communications, Quality-aware Multimedia Delivery, Adaptive E-learning and Energy-aware Networking. These all reflect the synergy between electronics, informatics and software engineering in the development of ICT in the 21st century. Researchers from different cultural backgrounds, including: Ireland, Romania, China, Brazil and Bosnia and Herzegovina, are working together and sharing their valuable expertise with each other and industry partners. PEL at DCU has various collaborations with major multinational companies such as Ericsson, IBM, Microsoft, Samsung, and Disney Research and with Irish SMEs such as Citadel 100, Everseen, Openmind Networks and Wowifi. The alumni of this lab have top research, development or management positions worldwide including Ireland, UK, Korea, China, India and Vietnam.

The Project
NEWTON is a large scale European-funded international project which involves 14 partners from 7 countries. NEWTON will develop, integrate and disseminate innovative technology-enhanced learning (TEL) methods and tools, to create new or inter-connect existing state-of-the art teaching labs and to build a pan-European learning network platform that supports fast dissemination of learning content to a wide audience in a ubiquitous manner. NEWTON focuses on employing novel technologies in order to increase learner quality of experience, improve learning process and increase learning outcome.
The NEWTON project goals are to:
- Develop and deploy a set of new TEL mechanisms involving multi-modal and multi-sensory media distribution
- Develop, integrate, deploy and disseminate state of the art technology-enhanced teaching methodologies including augmented reality, gamification and self-directed learning addressed to users from secondary and vocational schools, third level and further education, including students with physical disabilities
- Build a large platform that links all stakeholders in education, enables content reuse, supports generation of new content, increases content exchange in diverse forms, develops and disseminates new teaching scenarios, and encourages new innovative businesses
- Perform personalisation and adaptation for content, delivery and presentation in order to increase learner quality of experience and to improve learning process
- Validate the platform impact and the effectiveness of the teaching scenarios in terms of user satisfaction, improvement of the learning and teaching experience etc... and the underlying technology through an European-wide real-life pilot

**Principal Duties and Responsibilities**

The primary focus of the Research Fellow (RF) will be technical managing and performing research on the EU-funded project NEWTON; however the Researchers activity will be broader as the RF is expected to:
- Manage and perform a specified programme of research under the direction of the Principal Investigator
- Manage researchers in their day to day research activity in conjunction with the Principal Investigator
- Manage the resources required for delivering on the research programme as advised by the Principal Investigator
- Liaise with different DCU units such as STEP, RIS, Finance, Registry in aspects related to the managed research activities
- Engage in appropriate training and professional development opportunities as required by the Principal Investigator, School or University in order to develop research skills and competencies
- Coordinate and lead grant writing under the supervision of the Principal Investigator
- Engage in the dissemination of the results of the research in which they are engaged, as directed by, with the support of and under the supervision of the Principal Investigator
- Provide support for wider research and scholarly activities of the research group, School or University
- Take leadership and manage the generation of papers, funding proposals and reports, including regular funding agency and EU report etc...
- Actively publish research findings in high impact journals and at key conferences as part of the research group effort to disseminate research outputs
- Carry out additional duties as may reasonably be required within the general scope and level of the post
- Contribute to costing research grant proposals and assist in the financial management of a research project
- Attract and lead collaboration with industry in areas relevant to the research group
- Organise broader outreach and engagement activities such as technical meetings, outreach events to schools and other interested parties etc...
- Foster relationships with funding agencies, foundations and professional societies to gain access to new and evolving research priorities and corresponding funding programs
- Identify opportunities for internal and external engagement with particular focus on the dissemination of research results to a wider audience
- Undertake international travel
Criteria

- PhD qualification normally required, preferably in a computer networks-related discipline
- Appropriate technical competence and research experience in some of the areas related to computer networks such as:
  - Quality-oriented network delivery of content
  - Protocols at different network layers
  - Network selection and handover
  - Adaptive multimedia delivery
  - Multi-sensorial media delivery
  - Energy-aware networking
  - Internet of Things (IoT)
  - Performance of wireless networking
  - User profile-based personalisation of services
  - Network modelling and simulation
  - Network system prototyping
  - Subjective testing
- Evidence of accomplishment in research and development in the area of computer networks
- A capability of working within a project team to achieve group-oriented results in parallel to individual productivity and top quality publications
- Good communication, organisation and interpersonal skills
- Experience in presentations to international conferences is preferable
- A commitment to leading a research project
- The Research Fellow should ideally have some of the following:
  - Experience in managing and coordinating research funding submissions through national and international agencies
  - Knowledge of the comprehensive suite of funding schemes in Horizon 2020
  - A strong proven track record in project proposal writing; experience of collaborating with industry and academia in preparing project proposals is a distinct advantage
  - A proven track record of managing multidisciplinary or multi-partner projects
  - Relevant experience in work related to EU programmes and/or international research programmes
  - Proven experience in establishing and managing meaningful and productive partner relationships across boundaries between scientific disciplines, academia and industry

An appointment will be made at the level/point of Research Fellow commensurate with the experience and qualifications of the successful candidate, in line with DCU’s Research Career Framework.

Applicants for the Research Fellow position shall normally have a PhD and minimum of 4 years post-doctoral research experience or equivalent of Level 1 of the Research Career Framework.

Salary Scales:

*Research Fellow: €51,716 - €56,442 per annum

* 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: 23 May 2016
Candidates will be assessed on the following competencies:

**Discipline Knowledge & Research skills** – Demonstrates the ability to design and/or implement a substantial programme of research including initiating and leading new research programmes (for example by using critical judgement and an understanding of new research methodologies)

**Understanding the Research Environment** – Demonstrates a thorough understanding of the research environment both nationally and internationally, the ability to secure significant research funding and where relevant the ability to apply for intellectual property rights and/or patents for their research

**Communicating Research** – Demonstrates excellence in communicating their research nationally and internationally (for example by publishing in high quality peer reviewed journals of international standing and through invitation to participate in commercial research) and the ability to deliver teaching based on their own research

**Managing & Leadership skills** – Successfully leads and manages research programmes including the management and supervision of a small research team and the financial management of research programmes.

**Informal Enquiries to:**
Dr. Gabriel-Miro Muntean, School of Electronic Engineering, Dublin City University, Dublin 9, Ireland
E-mail: [gabriel.muntean@dcu.ie](mailto:gabriel.muntean@dcu.ie)  Tel: +353 (0)1 700 7648
*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://www4.dcu.ie/hr/vacancies/current.shtml](http://www4.dcu.ie/hr/vacancies/current.shtml) and also from the Human Resources Department, Dublin City University, Dublin 9. Tel: +353 (0)1 700 5149.

**Please clearly state the role that you are applying for in your application and email subject line: Job Ref#234A : Research Fellow**

Applications should be submitted by email to [hr.applications@dcu.ie](mailto: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*