



Research Unit:	School of Computing
Post Title:	Post-Doctoral Researcher universal design of mathematics
Level on Framework:	Level 1
Post Duration:	Fixed Term up to 12 Months

Research Career Framework

As part of this role the researcher will be required to participate in the DCU Research Career Framework <http://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

The Euromath project is funded under the Erasmus Plus programmed of the European Union. Its aim is to create tools and teaching resources which will enhance the educational and professional opportunities for blind people. The goals of this project are to produce software (ICT) based solutions for the production of Braille and spoken mathematics. Other project artefacts will include best-practice examples showing how best to teach/impart mathematical concepts to blind students. This project is based on the precepts of Universal Access. It is the stated objective of this project that all outputs meet the highest standards of accessibility. We are now seeking a suitably qualified and motivated individual to join our team and work on this project.

The Project

A vacancy exists for the position of postdoctoral researcher who will be involved in undertaking research relating to the accessibility of mathematical content for blind and vision-impaired people. The role will have the specific objective of producing converters from MathML to UEB (Unified English Braille), and also from UEB to MathML. The role also involves working on methods to convey mathematics using audio output. The successful candidate will also be responsible for working with stakeholders in educational and other institutions, to establish the suitability of the ICT solutions and training materials produced. The researchers will be based in the School of Computing at DCU and will work under the supervision of Dr. Donal Fitzpatrick. The researcher will join a team of partner organisations in Poland and the Netherlands.

Principal Duties and Responsibilities

Reporting to his/her project coordinator, the Postdoctoral Researcher main duties will include:

- To contribute to literature reviews and the development of the research design
- To collect and collate the research data
- To analyse and support the interpretation of the research data
- To maintain accurate project records and project confidentiality
- To contribute to academic articles, conference papers and other publications
- Conduct a specified programme of research under the supervision and direction of the Principal Investigator which will ensure that all aspects of the Euromath project meet the highest standards of accessibility. The successful applicant will also be responsible for engaging with teachers and students to ensure that the project outputs meet their needs and requirements.

Criteria

Applicants should have a PhD in a relevant discipline, evidence of strong empirical research skills and a knowledge of some of the relevant academic literature on accessibility, and access to mathematics/STEM for blind and vision-impaired people. In addition, it is desirable that the candidate has experience in the related domains of general universal design, Web accessibility, usability and/or user experience. The candidate must have strong programming skills, as writing code will be a key component of this work.

Candidates should have skills in the design, management and conduct of research, a high level of interpersonal skills, team working skills, report writing, time management skills and ability to work to deadlines.

Salary Scale: *€36,854- €47,728

** 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: 12th October 2018.

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/postgraduate students.

Informal Enquiries to:

Dr. Donal Fitzpatrick, DCU School of Computing – Email donal.fitzpatrick@dcu.ie, Tel: +353 (0)1 700 8929

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> 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 1001

If, for reasons of accessibility, it is not possible for applicants to complete the standard DCU application form, a CV of not more than 5 pages will be accepted instead.

Applications should be submitted by email to hr.applications@dcu.ie or by post to the Human Resources Department, Dublin City University, Dublin 9. Please note that if submitting by post, a digital version should be sent. Paper-based applications will not be accepted for this role.

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