



**DCU Business School**

**Postdoctoral Researcher**

**(9-Month Fixed Term Contract)**

DCU Business School is a young and dynamic school whose history is marked by steep upward development. From the outset, our guiding voices were those of industry and students, and as a result, we are today distinctive for our deep and responsive industry engagement and our close concern with the success of our students. From those beginnings in the 1980s, and particularly over the last ten years, DCU Business School has developed an excellent research profile characterised by its industry relevance and a strong international reach. The School is accredited by AACSB and AMBA and our programmes have appropriate professional accreditations. DCU Business School is an engaged, innovative internationally-focused school which prides itself on its excellent reputation for impacting students, the academic community, industry and wider society.

**Background and Role**

As part of an 18-month Innovation Partnership funded project, DCU Business School in collaboration with IT Solutions seeks to appoint a Postdoctoral Researcher for a fixed term duration of 9-months to undertake research on phase 1 of this project. Dependent on the successful achievement of the project deliverables for phase 1, please note there may be an opportunity for DCU Business School to extend the duration of this position for a further 9-month period to cover phase 2 of the project.

IT Solutions are an Irish company and an established provider of digital engagement and workforce optimisation solutions for contact centres with over two decades experience in this area. Contact centres are ubiquitous across all business sectors and play a critical role for leading brands in how they interact with their customers on a day to day basis, build long term customer loyalty, increase sales and meet the diverse service needs of these clients.

Contact centres have evolved from providing a single channel of communication (i.e. telephone) to multi-channel / omni-channel operations (e.g. telephone, email, SMS, web chat Customer Apps). This is frequently driven by customer demand and also by corporate strategy, as organisations seek to connect more effectively with their customers, build customer loyalty and also make more efficient use of company resources.

Contact centres operate in a very dynamic and challenging environment. Forecasting contact volumes across multiple contact channels can be extremely difficult, particularly when unexpected events arise, such as launch of new products, positive or negative media comment about a brand, financial market turmoil or natural disaster. Contact centres do not dedicate sufficient time and resources to strategic analysis because the tools that are available are limited in functionality or extremely difficult to use. This results in increased risk to the business, lack of competitiveness and difficulty in understanding the effects of change. Forecast accuracy is also a significant challenge due to limitations of existing tools and customer satisfaction levels can be adversely affected, resulting in loss of business and damage to the brand.

IT Solutions are now embarking on the development of a new Contact Centre Modelling tool in partnership with DCU and are seeking enthusiastic individuals with the appropriate skills to be part of our team.

The successful candidate will work with an existing group of Post-doctoral Researchers, PhD students and Industrial Software Developers and will be collocated between DCU Business School and IT Solutions.

### **Principal Duties and Responsibilities**

The Postdoctoral Researcher's main duties will include:

- Functional and user interface design and development, including the definition of experimental capabilities necessary to support contact centre analysis.
- Systematic reviewing of the reporting and data output capabilities of relevant contact centre software.
- Formulation and development of a configurable model design for contact centre representation.
- Data gap identification with analysis of bridging options (e.g. industry standards, assumptions and simplifications).
- Development of integration solutions with the APIs of selected IT systems in contact centres.
- Front and backend cloud application development.
- Testing and deployment of software with a high technology readiness level.
- Carry out administrative work associated with the programme of research as necessary.
- Liaise with industry stakeholders in addition to the project partner, IT Solutions.
- Support the research team in successfully commercialising through the design, development and implementation of the research programme.
- Disseminate the outcomes of the research through publication under the direction of the PI

## Minimum Criteria

Applicants will have a Ph.D in Software Engineering, Computer Science, Information Systems or an equivalent discipline, with strong evidence of knowledge of the relevant technologies in SaaS software development, cloud computing and modelling.

The applicant should have a minimum of 2-year's software development experience with current and emerging web-based technologies.

They should also possess:

- Knowledge of the software design, development and maintenance process
- Strong background in front- and back-end Web application development
- Have experience in
  - Web technologies (HTML5, CSS, HTTP, XML, etc.)
  - Scripting and interface languages such as Javascript, PHP, etc.
  - Backend technologies (Java (and related), SQL/DBMSs, RESTful Web services, JSON, etc.)
- Experience and understanding of UI design principles relating to usability and cross browser compatibility
- Knowledge or experience of contact centre technology e.g. Cisco, Avaya, LivePerson including integration experience would be desirable
- Ability to develop specifications and translate into production-ready application
- Experience with Unit and Integration testing, automated testing (GUI and backend) and User Acceptance Testing
- Ability to stay abreast of current technologies and adapt to new technologies as appropriate

Experience in modelling for decision support would also be an advantage. The Postdoctoral Researcher should have an in-depth understanding of software engineering and cloud technologies in general, and have expertise in requirements engineering and software development in particular.

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

**Salary Scale:** \* €37,750 – €46,255 per annum

*\*Appointment will be commensurate with qualifications and experience*

**Closing Date:** 20 May 2016

**Informal enquiries to:**

Professor PJ Byrne, DCU Business School; Email: [pj.byrne@dcu.ie](mailto:pj.byrne@dcu.ie),

**Application Procedure**

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) 1 700 5149

Applications should be submitted by email to [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie) or by Fax: +353 (0)1 700 5500 or by post to the Human Resources Department, Dublin City University, Dublin 9

***Please clearly state the role you are applying for in your application and email subject line: Job Ref #323: Postdoctoral Researcher – DCU Business School***

***Dublin City University is an equal opportunities employer***