



Institute of Technology

Ciência sem Fronteiras / Science Without Borders

Postgraduate Project Template

Institution:	IT Blanchardstown
Title of Postgraduate Opportunity: (include level of study)	Information Systems Development: Tools and Techniques An Evaluative and Developmental Study of Irish Organisations MSc/PhD
PI Name & Contact Details:	Dr. Larry McNutt Head of School of Informatics and Engineering Email: larry.mcnutt@itb.ie Tel: 353+1+8851080
Department/School:	Informatics and Engineering
Research Centre /Group:	Software Engineering Research Group
Research Centre/Group website:	
<p>Brief Summary of PI research / research group /centre activity</p> <p>Larry McNutt BSc (Hons), HDipEd, M.Ed(Hons), EdD, FICS, is currently Head of School of Informatics and Engineering at the Institute of Technology Blanchardstown, Dublin, which he joined at its establishment in 1999. Prior to joining ITB, Larry was Senior Lecturer in the Institute of Technology Tallaght, Dublin and spent a number of years as an academic staff member at Southern Cross University Australia. He has also lectured at Dublin City University, Capella University in the US and at the Letterkenny Institute of Technology in Ireland. A Fellow of the Irish Computer Society, his research interests and publications include distance education, educational technology, instructional design and computer science education.</p> <p>Recent publications include:</p> <p>Conference proceedings:</p> <p>McNutt L. (2010), <i>"Examining the Field of Educational Technology:A Bourdieuan Perspective"</i>. In Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2010 (pp. 1374-1383). Chesapeake, VA: AACE</p> <p>Book Chapters:</p> <p>McNutt L. (2010). Educational Technology, Innovation and Habitus: What is the connection? In R.</p>	

Donnelly, & J. Harvey and K. O'Rourke (Eds.), **Critical Design and Effective Tools for E-Learning in Higher Education: Theory into Practice** (pp. 72-91). IGI Global, ISBN13: 9781615208791.

McNutt L & Murphy D. (2011). Sharing innovative practice/managing diversity. In N. Fitzpatrick & J. Harvey (Eds.), **Designing Together: Effective strategies for creating a collaborative curriculum to support academic development** (pp. 76-81). Published on behalf of the LIN Accredited Professional Development Working Group. Available from <http://arrow.dit.ie/>

Brief Description of Masters or PhD Project

The approach to the design and development of information systems has undergone many changes in the last decade (traditional, structured, participative, prototyping, object oriented, multiview). The importance of the human and organizational elements in the design of information systems is being recognized. The aim of this study is to explore and examine the various aspects and dimensions associated with the development of information systems within Irish organizations. A multidimensional approach will be adopted in relation to this study. This will include a review of relevant literature plus a series of semi-structured interviews with professional information system practitioners in addition a survey of a representative sample of Irish organizations will also be undertaken. The key questions to be addressed by the study include:

1. What tools, techniques and methodologies are currently being used by Irish organizations
2. What is the perceived effectiveness of each tool and technique
3. What are the future trends in relation to the use of these tools and techniques
4. What CASE tools are currently being used.
5. How do Irish organisations compare with international trends and practices

No single uniform approach exists for the development of an information system and there is no central source of information for organizations to assess their current development profile. The outcome of this study will provide a valuable source of information in allowing industry practitioners to make informed decisions.

Key Attributes of Project for Brazilian Postgraduate Students

This project represents an opportunity to examine key developments in the information systems arena. A number of areas of expertise within the School of Informatics and Engineering will combine to provide a unique opportunity to explore the main themes of this work (1) information systems design and development (2) industry liaison and (3) curriculum development in the areas of information technology and information systems development.

Name and contact details for project queries, if different from PI named above:

As above

Please indicate graduate disciplines which are eligible for application:

The recruited graduate should be from a Computer Science/Business Information Systems/Information Technology degree course. Their degree should have been awarded with a

minimum of a 2nd class honours, some relevant work experience would be desirable.

The recruited graduate should also have demonstrated an interest in the development of information systems and have experience in the use of at least one methodology with appropriate tools and techniques.

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Alignment with Science Without Borders Priority Areas:

Please indicate the specific programme priority area under which the proposed postgraduate project fits – choose only one (tick box)

Engineering and other technological areas	
Pure and Natural Sciences (e.g. mathematics, physics, chemistry)	
Health and Biomedical Sciences	
Information and Communication Technologies (ICTs)	√
Aerospace	
Pharmaceuticals	
Sustainable Agricultural Production	
Green Chemistry	
Oil, Gas and Coal	
Renewable Energy	
Minerals	
Biotechnology	
Nanotechnology and New Materials	
Climate Change	
Biodiversity and Bioprospection	
Marine Sciences	
Productive Inclusion and Social Technologies	
Housing and Sanitation	