



Institute of Technology

Ciência sem Fronteiras / Science Without Borders

Postgraduate Project Template

Institution:	Athlone Institute of Technology
Title of Postgraduate Opportunity: (include level of study)	MSc Evaluation of a Natural User Interface Approach for User Interaction with Digital Repository.
PI Name & Contact Details:	Dr. Brian Lee +353 090 6483035 blee@ait.ie
Department/School:	Department of Electronics, Computer and Software Engineering
Research Centre /Group:	SRI (Software Research Institute)
Research Centre/Group website:	www.ait.ie/sri
Brief Summary of PI research / research group /centre activity <p>The Software Research Institute was established in 2006 with the goal to develop a leading edge research capability in AIT and to act as a catalyst to spur innovation through applied research collaboration with industrial partners. Since its foundation in SRI has been successful in attracting applied research and technology transfer funding valued in excess of €3.5Million.</p> <p>The institute currently has 18 staff with a mixture of post-docs, graduate students and engineering staff. SRI hosts the SUNAT Applied Research Enhancement (ARE) centre which is sponsored by Enterprise Ireland and which conducts research on mobile devices and seamless content delivery in the mobile Internet. The increasing mobility of users, devices, and even networks, combined with new forms of multimedia services and the ability of end users to act as 'prosumers' creates many new challenges to the creation and delivery of end-to-end content. SUNAT seeks novel solutions to meet this challenge both in the network and on the terminals.</p> <p>The centre has built a reputation for applied research in the wireless domain and has collaborated with start-ups (3Touch), SMEs (T5 Process Solutions, WPA Mobile, Portomedia, Air5, Solanotech, NewCode, Outcam) and multi-national companies (Ericsson). The group is focused on bringing leading edge research to the market-place.</p>	
Brief Description of Masters or PhD Project Evaluation of a Natural User Interface Approach for User Interaction with Digital Repository.	

This proposal seeks to evaluate the effectiveness and acceptability of “natural user interfaces” as a method of interacting with the computer mediated display and visualization of cultural objects whether in a museum or gallery setting or similar digital repository

In recent years museums and similar cultural repositories have sought new means of disseminating their message more effectively, both through addressing with a wider public and also of engaging audiences more interactively. One of the main pathways to achieve this expansion has been through the use of ICT techniques in particular through the use of rich multimedia and computer graphics to create *immersive* and *interactive* “virtual museums”. The recent emergence of devices such as the Kinect creates the possibility for new forms of interaction with digital devices across a wide range of application including virtual museums.

Key Attributes of Project for Brazilian Postgraduate Students

AIT has invested heavily in the infrastructure underpinning the SRI with the completion of a HEA co-funded €2.5 million purpose built Research HUB in 2010. The Research Hub includes major state-of-the-art ‘equipment platform’ laboratories in addition to research student seminar rooms, social space, and ancillary supporting facilities with nexus to the Midland’s Innovation and Research Centre (MIRC) that facilitates high-growth knowledge-intensive export-focused businesses in the Midland’s region. The SRI commits to assist with spin-in, spin-outs and research entrepreneurship and to develop R & D activities that continues to bridge academic excellence and enterprise development. The SRI works closely with the AIT Innovation Centre, MIRC and with industry nationally and in particular the midlands region of Ireland. SRI works closely with companies to support them to undertake collaborations through various funding schemes.

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

Office of Research – awatts@ait.ie

PI – Dr. Brian Lee - blee@ait.ie

Please indicate graduate disciplines which are eligible for application:

Honours Bachelors Degree in relevant discipline.

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	<input checked="" type="checkbox"/>
Pure and Natural Sciences (e.g. mathematics, physics, chemistry)	<input type="checkbox"/>
Health and Biomedical Sciences	<input type="checkbox"/>
Information and Communication Technologies (ICTs)	<input type="checkbox"/>
Aerospace	<input type="checkbox"/>
Pharmaceuticals	<input type="checkbox"/>
Oil, Gas and Coal	<input type="checkbox"/>
Renewable Energy	<input type="checkbox"/>
Minerals	<input type="checkbox"/>
Biotechnology	<input type="checkbox"/>
Nanotechnology and New Materials	<input type="checkbox"/>
Technology of prevention and remediation of natural disasters	<input type="checkbox"/>
Biodiversity and Bioprospection	<input type="checkbox"/>

Marine Sciences	
Creative Industry	
New technologies in constructive engineering	