

CNGL Undergraduate Students as Researchers Programme PROJECT DESCRIPTION

Institution/Track:	TCD/DCM
Project Title:	Web-Based Digital Content Management Applications
Suitable for students who are studying in the following areas:	Computer Science Engineering Web Technologies Web Design
Skills needed:	This project would be suitable for a candidate with strong technical and programming skills, particularly with Web technologies such as PHP and MySQL. The project will focus on the use of DRUPAL, an open source content management system; a familiarity with this system would be desirable.
Project Description:	Content Management Systems allow an individual, a community of users, or an enterprise to easily publish, manage and organize a wide variety of content on a website. The built-in functionality of such systems, combined with commonly available plug-in modules, enables features such as: <ul style="list-style-type: none"> • Electronic commerce • Blogs • Collaborative authoring environments • Forums • Peer-to-peer networking • Newsletters • Podcasting • Picture galleries • File uploads and downloads <p>Drupal is one such CMS which is available as open-source software - http://drupal.org/</p>
The Role of the student & benefits gained from participation in this project:¹	<p>The student will use an existing web portal (http://1641.eneclann.ie), which is implemented using PHP and MySQL, to demonstrate how to port a website into the Drupal CMS. This will allow a community of non-technical stakeholders to take control of the content of the website and to assume responsibility for maintaining this content.</p> <p>This implementation work will give the student an intimate working knowledge of DRUPAL as well as improving their knowledge of PHP and MySQL, which are among the most widely used web technologies.</p> <p>Once conversion is complete, the system will be hosted on the TCD High Performance Computing Grid. This will give the student experience with such advanced, large-scale computing facilities.</p> <p>The student will also have the opportunity to participate in ongoing research into web technologies and will be encouraged to participate in the creation of a novel web portal that will be evaluated in user trials.</p>
Who will be working with you?	<p>The selected student will work closely with two Post-Doctoral Research Fellows, Séamus Lawless and Deirdre O'Regan. S/he will also have the support of Prof. Vincent Wade.</p> <p>During their time with us, s/he will be part of a large research group and as such have the support of many postgrads and postdocs. The student will also be expected to attend any workshops or seminars that are held within the group.</p>

¹ *This is an initial description of the role of the student and it is liable to change following discussions between the investigators and the student.*

Short description of the group:	The Knowledge and Data Engineering Group (KDEG) comprises eight academic staff and over fifty research associates and postgraduate students. KDEG has established a strong reputation in the research of <i>knowledge and semantic representation, adaptive portals for information analysis, educational systems, Adaptive Hypermedia systems and intelligent pedagogic systems</i> . KDEG is a world leader in the area of <i>knowledge driven personalisation and dynamic adaptation of digital content</i> . Over the last fifteen years, the group has pioneered innovation in dynamic metadata-driven techniques for digital content retrieval, composition and automated customisation.	
Recommended Reading Material:	DRUPAL support documentation, tutorials and handbooks - http://drupal.org/handbooks	
Other information:		
For further details on this project please contact:	Name: Phone: E-Mail: Website:	Dr. Séamus Lawless 01-8961335 seamus.lawless@scss.tcd.ie www.scss.tcd.ie/seamus.lawless