

CNGL Undergraduate Students as Researchers Programme 2011 PROJECT DESCRIPTION

Institution/Track:	Located in University of Limerick (Localisation Research Centre)	
Project Title:	Development of an interface between YAWL workflow engine and locConnect – the orchestration component of Service-oriented localisation architecture solution	
Suitable for students who are studying in the following areas:	Web development and/or Internet Applications, Software Engineering, Software Localisation	
Skills needed:	Strong programming skills in JAVA and PHP, and sound knowledge of AJAX, XML Technologies (XPath, XQuery) and Web Services	
Project Description:	<p>As a part of the CNGL (www.cngl.ie) demonstrator programme, a novel environment for the inter-connectivity of distributed localisation components has been developed. This solution promotes interoperability of components through the adoption of a Service Oriented Architecture (SOA) framework based on XLIFF (XML Localisation Interchange File Format) standard. This environment is named SOLAS (service oriented localisation architecture solution). SOLAS includes an orchestration component known as locConnect. Currently, locConnect carries out the process of orchestration through a primitive workflow engine built into it. The workflows are generated by another component named Workflow Recommender.</p> <p>There are two main objectives to the project. The main objective is to develop an interface between YAWL (Yet Another Workflow Language- www.yawlfoundation.org), an open source workflow engine and the locConnect component. The other objective is to develop (or adapt) a user interface to edit and display (YAWL) workflows in a web browser, including the automatic generation of the layout information from the workflow information.</p>	
The Role of the student & benefits gained from participation in this project:¹	The student will learn about the concepts of business process management using a commercial grade business process management application (YAWL). The student will learn to study existing open source systems and contribute to their further development. Moreover, the student will learn the concepts of next generation localisation. He or she will learn about various XML technologies, interoperability issues between applications as well as standards (e.g. XLIFF, YAWL). He or she could improve his or her programming skills while working in this project.	
Who will be working with you?	The undergraduate student will be working under the supervision of the LOC group (based on the Localisation Research Centre, University of Limerick). He or she will be working closely with the PhD students, Aram Morera Mesa and Asanka Wasala, who will help him or her to implement the necessary software. They will dictate the implementation requirements. The student will be supervised by Reinhard Schaler, Dr. Lamine Aouad, Dr. Ian O'Keeffe and Dr. Eoin Ó Conchúir. The student could also participate in the LOC meetings that take place weekly.	
Short description of the group:	The LOC group is made of the following people: Research leader: Reinhard Schäler Administration, Education & Outreach: Karl Kelly and Geraldine Harrahill Post-Docs: Ian O'Keeffe, Eoin Ó Conchúir, David.Filip and Lamine Aouad. PhD students: There are 8 PhD students.	
Recommended Reading Material:	http://www.youtube.com/watch?v=KPdxZwRxfA4 http://www.yawlfoundation.org/ http://yawlfoundation.org/yawldocs/CustomWebServices_Beta7.pdf http://docs.oasis-open.org/xliff/xliff-core/xliff-core.html http://www.ics.uci.edu/~fielding/pubs/dissertation/evaluation.htm#sec_6_3	
Other information:		
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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.

