Report: Carnegie-Mellon - Portugal Faculty Exchange

José Maria Amaral Fernandes,

From Aug, 15th 2010 to Dec, 17th 2010

In this short report I describe what was done regarding the research and teaching during the faculty exchange.

Research

Initial contacts at the Institute of Software Research (ISR) / School of Computer Science identified similarities between Brain Imaging Network project (http://www.brainimaging.pt) – I am part of the team - and the SORASCS project: both are focused on providing a flexible system to support e-Science in two very specific fields. Our (ongoing) collaboration is centred in identifying and formalizing the common features and issues to converge to a unique architectural style (meta-model). This style will be used as basis to a common solution to provide adaptable data processing workflows to both systems users.

Contacts were established with Centre for Cognitive Brain Imaging (CCBI) aiming to explore the use of nonlinear association measures on neurocognitive paradigms using functional magnetic resonance (fMRI). The issues identified presented an open area for research with potential for further collaboration. In this context, I collaborated with Susana Novais Santos (also supported by CMU-Portugal).

Teaching

I proposed and lectured an elective course "17623 - Software Engineering for Mobile Computing". At the same time, being placed in an office at 300 S Craig St - house of the Master of Software Engineering (MSE) brought me a chance of daily contact with both MSE faculty and students. This helped me to learn and understand some of the practices and approaches in Carnegie Mellon University (CMU) and follow some ongoing MSE courses - later this led to an invitation to present a talk in the "Managing Software Development" course.

Final considerations

The faculty exchange was very successful both personally and professionally and provided an opportunity to know CMU and start valuable research collaborations. The preparation visit to CMU early in April was very important to establish contacts and prepare this semester in the CMU (e.g.

housing). My recommendation to anyone interested in the program is to do it also. Personally, I envisage this visit to Pittsburgh as the first of many to come.

An unexpected outcome of my stay in the CMU was the opportunity of meeting Portuguese colleagues and knowing their activity in Portugal. These contacts already led to thesis committee invitations, talks and possible cooperation in future projects based on common research interests. Among these contacts are Rui Maranhão, Jaime Cardoso, Ricardo Morla and Susana Novais Santos.