4.C. International Research Internships come to Research Commuting Centre, University of Queensland

In today’s educational arena, universities must provide students with opportunities to work and study abroad to prepare them for global citizenship and professional competence in a multi-cultural workplace. Numerous reports have challenged universities to develop educational programs that provide an integrated academic basis for developing students’ cultural/global competencies.

Over the past five years, 26 Monash University students have travelled to international partner institutions under the Monash Undergraduate Research Projects Abroad program (MURPA). The have been placed at at the University of California, San Diego, The National Center for Supercomputing Research in Illinois, The Technion Institute in Israel and the University of Warwick. Students are placed for a period of eight weeks, allowing them to integrate into the research groups as team members. Students have a local mentor in Australia as well as one at the remote site, and often bridge international research projects. In 2012/’13, three students travelled to UCSD and two to Warwick University in the UK, specifically working in Bayesian networks, distributed computing, wireless sensor networks, machine learning, and scientific workflows.

This year the University of Queensland (UQ) has launched QURPA, and UQ students will join MURPA students for the first time. This not only allows UQ students to engage in some fascinating advanced computing projects, but opens the door to trans-national student-led collaboration in undergraduate research. We have also added collaborators at the Institute for Infocomm Research (I2R) in Singapore in addition to projects at UC San Diego. Projects span a wide range of advanced computing technologies and leading edge applications, and serve as incubators for research collaborations at UQ.

MURPA and QURPA involve an advanced seminar scheme, in which students can attend virtual seminars given by leading world experts. These seminars also allow students to "meet" potential UCSD mentors and get some information about potential projects. In 2013, seminars were sourced from faculty at UCSD, the University of Indiana, I2R in Singapore, the National Centre for Supercomputing Applications (NCSA) and Rensselaer Institute of Technology. That same year, seminars were broadcast simultaneously to Monash (in Melbourne) and UQ (in Brisbane), and audiences were able to ask questions from either venue. The seminar infrastructure supports a wide range of video conference technologies (both open source and commercial), and is displayed on a 20 MPixel OptiPortal.