TITLE: Postgraduate Scholarship in Large-Scale Communication Networks

DESCRIPTION: Three full-time postgraduate scholarships are available for suitably qualified candidates with a good honours degree or equivalent in science or engineering to undertake research studies leading to Master-by-Research or PhD in telecommunication networks at the University of Sydney under the supervision of Dr Guoqiang Mao.

The scholarships are funded by the Australian Research Council Discovery Projects. The project will develop scientific tools for the modelling, characterization, network architecture design and communication strategies design of highly dynamic networks, with a particular focus on intelligent transport systems and smart grids. The aim is to develop fundamental methodologies, built on a solid understanding of the characteristics of these networks, that provide design principles and management guidelines for these networks.

The following topic areas will be investigated (but not limited to):

* Characterization of dynamic networks.
* Network architecture design.
* Building local consensus.
* Statistical radio resource management.
* Cooperative communication strategy.

ELIGIBILITY: Applicants should have a solid mathematical, telecommunications or electrical engineering background, a particular interest in applying sophisticated mathematical skills in studying large-scale highly dynamic or complex networks. The scholarship is mainly intended for PhD candidates however Master-by-Research candidates with a good academic record may also be considered provided that the applicant is determined to take a PhD study after Master completion. Successful applicants are expected to start their enrolment at the University of Sydney in Semester 1 or 2, 2012.

AMOUNT AWARDED: The scholarship is valued at $23,728 per annum (tax exempt) and may be renewed for up to three years, subject to satisfactory progress. Successful applicants may also receive an additional top-up scholarship valued at $7,000 per annum (tax exempt) from the School of Electrical and Information Engineering.

APPLICATION GUIDE: Further information can be obtained from Dr Guoqiang Mao, School of Electrical and Information Engineering, The University of Sydney, NSW 2006 (E-mail: guoqiang.mao@sydney.edu.au). Applications should be sent directly to Dr Mao at the above address and should include a curriculum vitae, a copy of an academic transcript, a research proposal in the above mentioned areas, and the names and contact details of at least two referees. For overseas students, English test results, e.g. IELTS, should be included.

CLOSING DATE: 29 February 2012