PHD Scholarships in Traffic and Transport (Transport Network modelling and optimisation)

Up to two full-time postgraduate scholarships are available for suitably qualified candidates with first or second level honours or Masters degrees to undertake research studies leading to a PhD in transport engineering at the Institute of Transport Studies, Department of Civil Engineering, Monash University.

Project Title:
Optimising Roadspace Using Networks of Priority Lanes
An ARC Discovery project

Project Area:
The successful applicant would be expected to conduct research in one of the following areas:

A. Development of a measurable basis for balancing the impact on private, public and freight transport of lane priority choice at the network level
B. Capturing the network-wide impacts of priority lane allocation (i.e. mode shift, route change, destination choice, and departure choice) through comprehensive modelling and building a link between transportation strategic modelling and network optimisation
C. Development an accurate analytical complete algorithm as well as a heuristic, fast and practical algorithm for this transport network optimisation problem.

The scholarship is for a research student interested in transport network modelling, with a specific focus on transit priority modelling, inter modal networks, and network design. It is essential that the applicant has a strong background in network models and object oriented computer programming, with an interest in applying these skills to the inter modal priority network design. Applicants with other research interests in Traffic and Transport are also encouraged to apply.

The project offers the opportunity to gain a PhD in leading edge traffic and transport area. The student will be based at Monash University, Clayton Campus, in a lively and vibrant research environment, with strength in experimentation and computational methods and modelling.

Terms/Benefits:
- Annual tax free stipend of $24,000 per annum for three years
- University tuition fee waiver for international students
- Possibility of a top-up scholarship up to $7,000
- Potential for earning additional through provision of teaching and research assistance to academic staff
- Attendance at 1-2 conference
Who Should Apply?
Applicants for the scholarship should have, or expect to obtain shortly, a honours or masters level
degree which has involved carrying out high quality independent research. Preferred backgrounds
include civil engineering, traffic and transport engineering, applied statistics and mathematics,
computer science, and operation research/optimisation. It is imperative that the applicant has a
solid quantitative background. Successful applicants must have good written and oral
communication skills. Please note, applicants can be Australian citizen or international students.

Application Process:
Applicants should submit the following by February 25th
1. Academic Transcripts - certified copies
2. Curriculum Vitae (with photo)
3. The details of two academic referees familiar with your studies
4. A cover letter/statement of no more than 700 words outlining your research
   interests/experience, which are of relevance to this application

Applications should be sent to:
Dr Majid Sarvi
Institute of Transport Studies
Department of Civil Engineering
Building 60  Clayton Campus
Monash University  Victoria  3800  Australia.
Tele: +61-3-9905 9696
E-mail: majid.sarvi@monash.edu
Dr Sarvi can be contacted by e-mail for further details of the scholarship.