

PhD Opportunity in Crowdsourced Pavement Condition Assessment

The Project

Pavement deterioration such as potholes, cracks and reduced surface friction can damage vehicles and increase safety risks. Information about pavement conditions helps road users to avoid damaged roads and keep the relevant agencies informed so that remedy actions can be taken in time. However, conventional methods for pavement condition monitoring and assessment, especially for large road networks, are costly and time-consuming. Recent development in sensor hardware and data analytics methods, as well as the prevalence of smartphones, provide new opportunities for collecting asset data in a robust, timely, and cost-effective way. This PhD project will investigate a crowdsourcing-based approach for pavement condition monitoring and assessment based on data collected by on-board smartphone sensors.

The Opportunity

A scholarship covering tuition fees and providing a tax-free stipend (approximately \$28,000/year) for 3 years is potentially available for either local or international students. There is potential for successful applicants to earn around \$3,000 per annum through assisting in undergraduate teaching. Students are given financial support to attend an international conference during their PhD.

Selection Criteria

- MSc or BSc or equivalent degree in Civil or Electrical Engineering, Information Technology, or Computer Science.
- Experience in programming, statistical analyses, machine learning
- Research experience of at least 6 months. Publications in quality journals and conference proceedings are preferred.
- Excellent academic record ($> 75/100$)

Application

Applicants should express their interest by emailing to Dr Yihai Fang (yihai.fang@monash.edu) with the following documents:

- Cover letter (maximum two pages), outlining your interest and experience in this research topic and why you are applying for this PhD program, as well as evidence of meeting the eligibility criteria for PhD candidature at Monash University (<https://www.monash.edu/graduate-research/future-students/apply>)
- Copies of academic transcripts
- Up-to-date CV

Enquiries

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