

# **PhD Scholarships in Geotechnical Engineering ARC Training Centre for Advanced Technologies in Rail Track Infrastructure (ITTC-Rail) Centre for Geomechanics and Railway Engineering University of Wollongong, Australia**

Several PhD scholarships in the field of geotechnical engineering are available under the supervision of Distinguished Prof. Buddhima Indraratna at the Centre for Geomechanics and Railway Engineering, University of Wollongong, Australia. For a top calibre candidate, a stipend up to \$35,000 p.a. (tax-exempt) depending on qualifications and experience is available for a period of three years (with the possibility to apply for a 6 month further extension). These scholarships will be funded through Australian Commonwealth Government and Industry funds. For overseas candidates the tuition fee can be waived.

The PhD topics include:

1. Stability of tunnels in jointed and fractured rock
2. Use of waste materials in railway substructure under cyclic loads
3. Mathematical modelling of Rail Track Dynamics and implications on design
4. Use of geosynthetic inclusions for improved foundation stability
5. Use of synthetic drainage and filtration layer for alleviating subgrade fluidization (mud pumping) under high cyclic/dynamic loads
6. Utilization and improvement of marginal materials in construction.
7. Interpretation of rail track behaviour based on energy mechanisms/entropy.
8. Large scale Physical Modelling of Transport Infrastructure under dynamic loads.

The successful candidate will have a first degree in Civil Engineering or related discipline with First Class equivalence. Master degree in Geotechnical Engineering is desirable but not essential. Applicants may be considered as meeting the English language requirements if successfully completing tertiary education at a recognised Institution/University where the language of instruction was English. Other candidates must have an IELTS score of at least 6.5.

Applicants should send their CV, academic transcripts, English test result (IELTS or TOEFL) plus names and contact details of two referees to: Distinguished Prof Buddhima Indraratna, Centre for Geomechanics and Railway Engineering, University of Wollongong, NSW 2522, Australia, e-mail: [indra@uow.edu.au](mailto:indra@uow.edu.au), Phone 61 2 4221 3046.

**Applications Close 15 December 2017**