Position Description

Postdoctoral Research Associate

Position Number: XXXXXX Position Title: Postdoctoral Research Associate in Activity-based Modelling Date Written: May 2018

Faculty / Division: Engineering School / Unit: Civil & Environmental Position Level: Level A

ORGANISATIONAL ENVIRONMENT

UNSW is currently implementing a ten year strategy to 2025 and our ambition for the next decade is nothing less than to establish UNSW as Australia's global university. We aspire to this in the belief that a great university, which is a global leader in discovery, innovation, impact, education and thought leadership, can make an enormous difference to the lives of people in Australia and around the world.

Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as 'research intensive' or 'teaching intensive'. UNSW is proud to be an exemplar of both. We are amongst a limited group of universities worldwide capable of delivering research excellence alongside the highest quality education on a large scale. Secondly, a passion for social engagement, which improves lives through advancing equality, diversity, open debate and economic progress. Thirdly, a commitment to achieving global impact through sharing our capability in research and education in the highest quality partnerships with institutions in both developed and emerging societies. We regard the interplay of academic excellence, social engagement and global impact as the hallmarks of a great forward-looking 21st century university.

To achieve this ambition we are attracting the very best academic and professional staff to play leadership roles in our organisation.

UNSW BEHAVIOURS

UNSW recognises the role of employees in driving a high performance culture. The behavioural expectations for UNSW are below.

Please refer to the UNSW Behavioural Indicators for the expectations of your career level (level A).

Demonstrates Excellence	Drives Innovation	Builds Collaboration	Embraces Diversity	Displays Respect
Delivers high performance and demonstrates service excellence	Thinks creatively and develops new ways of working. Initiates and embraces change	Works effectively within and across teams. Builds relationships with internal/external stakeholders to deliver outcomes	Values individual differences and contributions of all people and promotes inclusion	Treats others with dignity and empathy. Communicates with integrity and openness

OVERVIEW OF RELEVANT AREA AND POSITION SUMMARY

The School of Civil and Environmental Engineering is the largest School in the Faculty of Engineering with over 3,300 students and an operating budget of over $23 million. The School has 48 full time academic staff, 30 professional and technical staff and 80 research only appointments. The School's mission is to develop well-educated graduates with the essential skills, attributes and knowledge that will enable them to practice as professional civil or environmental engineers; and to conduct research and development of international distinction to meet the needs of the discipline, industry and society. For further information about the School, please visit http://www.civeng.unsw.edu.au/

The Research Centre of Integrated Transport Innovation (rCITI) which is part of the the School of Civil and Environmental Engineering, represents a strategic effort with research, government and industry partners that unites and substantially augments the wide range of interdisciplinary research across campus. The Research Associate will contribute to initiating and undertaking behavioural agent-based modelling related research.

The role of Postdoctoral Research Associate reports to Dr Taha Hossain Rashidi, and has no direct reports.

RESPONSIBILITIES

Specific responsibilities for this role include:

- Conducts novel research in the on-modelling travel demand with a focus on activity-based modelling for the city of Sydney independently and as part of a team.

- Model travel diary data to derive statistical models to be used for forecasting and policy appraisal

- Analyse and combine large scale data sets to report on findings

- Contribute to high quality scientific and/or Engineering papers suitable for publication in international journals and progress reporting to other researchers and industry partners.

- Assist with the coordination of research activities and actively contribute to research outputs to meet project milestones.

- Contribute to the preparation of research proposal submissions to funding bodies and activity seek collaboration with industry partners as appropriate.

- Participate in and/or present at conferences and/or workshops relevant to the project as required.

- Assist with the supervision of research students in the research area where required.

- Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others.

SELECTION CRITERIA

- PhD in Civil Engineering with at least one year of experience as a postdoctoral research associate or similar.

- Demonstrated experience in one of the known activity-based models and working on large-scale multi-disciplinary projects.

- Demonstrated ability to conduct independent research with limited supervision.

- Demonstrated track record of publications and conference presentations relative to opportunity.

- Demonstrated ability to work in a team, collaborate across disciplines and build effective relationships.

- Strong interpersonal skills with demonstrated ability to communicate and interact with a diverse range of stakeholders and students.

- Demonstrated knowledge in statistics, econometrics, machine learning methods and computer programming.

- Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training.

It is not the intention of the position description to limit the scope or accountabilities of the position but to highlight the most important aspects of the position. The aspects mentioned above may be altered in accordance with the changing requirements of the role.