



UOW traffic modelling

Discovering travel mode decisions of students and staff.

SMART Infrastructure Facility (SMART) researchers have developed a hybrid agent-based and micro-simulation model. The model simulates the travel mode choices of commuters (students and staff) to and from the University of Wollongong (UOW) main campus for study and work.

Outputs from the model will provide key insights into the current modal splits and factors affecting the travel mode choice decisions.

In addition, the model also enables investigations of future travel scenarios for the commuters coming to and from UOW.

The project largely utilises information available from the UOW Transport Questionnaire Survey conducted in 2009 and 2011 by the Facilities Management Division (UOW); NSW Road and Maritime Services; and UOW students and staff data.

The UOW transport surveys capture the travel movements undertaken by commuters (staff and students) of the University of Wollongong for their daily activities. Questions in these surveys are designed to (1) measure the transport modal splits, (2) provide insights into attitudes of commuters for changing transport options and (3) report issues with the current transport options.

This model will assist the university in managing the current and future transport needs at the main campus in Wollongong and can also be applied to satellite campuses as UOW continues to grow nationally and globally.



TEAM

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PUBLICATIONS

- Shukla, N, Munoz, A, Ma, J & Huynh, N 2013, 'Hybrid agent based simulation with adaptive learning of travel mode choices for university commuters (WIP)', in *Proceedings of the Symposium on Theory of Modelling & Simulation - DEVS Integrative M&S Symposium*, San Diego, United States of America, 7-10 April.

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