

## The National University of Singapore Department of Civil & Environmental Engineering

### Assistant Professor/Associate Professor in Transportation

The Department of Civil and Environmental Engineering (CEE) at National University of Singapore (NUS) is consistently among the top five universities in the world in a variety of international rankings. In particular, the transportation group within CEE has been active in engaging multidisciplinary research and innovation, and contributes to delivering impact to the transportation industry (in Singapore and Asia) and the global transportation research community. The group is currently engaged in cutting-edge research activities that span a diverse set of research areas, including transportation network modelling and optimization, traffic control & management; traffic safety, urban mobility and intelligent transport systems (ITS); transport infrastructure engineering and management. Current faculty members in the transportation group are committed to conducting research work in contemporary and future urban transportation issues and attract research funds from both the government and industry, and multidisciplinary educational programmes within the department, faculty and the new common curriculum for engineering, design, and environment students.

CEE currently seeks to complement existing faculty members within the group and drive further research excellence with the intention to hire exceptional tenure-track faculty candidates in the area of future urban mobility and transportation, and in particular, with research expertise in the following areas:

#### **1. Connected autonomous vehicle (CAV) based traffic dynamics modelling and smart traffic control in a connected environment.**

CAV technologies will transform the characteristics of traffic flow and the way vehicles travel on roads (car-following behaviour and lane-changing behaviour), revolutionizing network-level traffic dynamics by improving safety, capacity, and stability. Smart traffic control strategies in the presence of vehicle-to-infrastructure (V2I) and vehicle-to-vehicle (V2V) communication, including but not limited to non-signalized/signalized intersection management, merging/diverging traffic control, and variable speed limit. Candidates with prior experience and an excellent track record in CAV-based traffic dynamics modelling and smart traffic control are encouraged.

#### **2. Intelligent driving and reliability testbed for automated driving**

Driving intelligence and reliability tests are critical to the development and deployment of CAVs. Advanced control and behaviour models need to be evaluated in real-world testbeds by considering evolving technologies and more general infrastructure topologies. The candidate should be able to set

up a reliable testbed for CAVs and contribute to major collaborative programs with other departments in the Faculty of Engineering such as Mechanical Engineering (ME) and Electric and Computer Engineering (ECE) and other faculties within NUS.

The successful candidate must have an earned doctorate in Civil and Environmental Engineering (CEE) and/or Electric and Computer Engineering (ECE) or a related field, with credentials suitable for appointments at the level of Assistant Professor or Associate Professor.

NUS offers internationally competitive remuneration and benefits. Details of terms and benefits are available on <http://www.nus.edu.sg/careers/whatyougettoenjoy.html>.

Interested candidates should send their application, including a letter of interest, detailed curriculum vitae with a full list of publications, statements of teaching philosophy, statements of research interests and plans, citing up to five significant publications and explaining their significance and contact information of three referees to:

Search Committee  
Department of Civil & Environmental Engineering  
National University of Singapore  
Block E1A, #07-03  
1 Engineering Drive 2  
Singapore 117576  
E-mail: [ceesec@nus.edu.sg](mailto:ceesec@nus.edu.sg)

Letter of reference will be solicited if shortlisted. Inquiries regarding the position should be directed to [ceesec@nus.edu.sg](mailto:ceesec@nus.edu.sg) quoting the subject "Assistant Professor/Associate Professor in Transportation Engineering".

Further information on the Department of Civil & Environmental Engineering is available at: <http://www.eng.nus.edu.sg/cee/>. This position is opened for application with immediate effect until it is filled. Only shortlisted candidates will be notified.