Travel Behavior Implication of Automated Vehicles

Date/Time: Friday September 16, 11am-12pm
Location: RH425

Speaker: Professor Yoram Shiftan
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Abstract
The introduction of fully automated vehicles will catalyze changes in travel behavior and activity participation. Automated vehicles may affect the value of travel time, the amount of travel time, and the quantity and type of vehicle purchases. Additionally, automated vehicles will make travelers willing to commute and travel longer distances, increasing the accessibility of activities that are further away, and impact long term life decisions such as where to live and work, thereby impacting land-use, necessitating additional planning.

Traditional approaches that are currently being employed are limited, because they either focus on safety and human factors rather than travel behavior (driving simulators; controlled test beds), assume travel behavior implications (micro-simulators; network analysis), or ask about hypothetical scenarios that are too unfamiliar to the subjects (stated preference studies). New methods and creative techniques for behavioral experiments are necessary, for example creative applications of stated preferences, focus groups, simulators, analogous modes, gaming, and virtual reality.

This presentation will discuss the travel behavior implications of fully automated vehicles, the methods to model them, and some initial results and recommendations. The presentation is based on two workshops co-organized by the author on this topic, the 2015 International Association of Travel Behavior (IATBR) conference, and the 2016 Automated Vehicle Symposium.

BIO
Yoram Shiftan is a Professor of Civil and Environmental Engineering in the Technion, and the head of Technion Transportation Research Institute. Prof. Shiftan teaches and conducts research in travel behavior with a focus on activity-based modeling and response to policies, the complex relationships between transport, the environment and land use, transport economics and project evaluation. Prof. Shiftan is the editor of Transport Policy and was the chair of the International Association of Travel Behavior Research (IATBR). Prof. Shiftan received his Ph.D. from MIT and since then has published dozens of papers and co-edited four books: “Transportation Planning” in the series of Classics in Planning; “Transition Towards Sustainable Mobility, The Role of Instruments, Individuals and Institutions”; ”Sustainable Urban Transport”; and “Securing Transportation Systems.”

Refreshments will be provided by the Department of Civil & Urban Engineering