

FALL 2018 DISTINGUISHED TRANSPORTATION SEMINAR

INTEGRATING SHARED AUTONOMOUS FLEET SERVICES IN
URBAN MOBILITY: DYNAMIC NETWORK MODELS FOR
SYSTEM OPERATION AND EVALUATION

Friday, November 2, 2018 2:00 - 3:15 PM (US Arizona)

College Avenue Commons (CAVC) Room 559 (Parking)**Dr. Hani S. Mahmassani****Northwestern University, Evanston, IL***William A. Patterson Distinguished Chair in Transportation
Director, Northwestern University Transportation Center
Professor of Civil and Environmental Engineering***About the Talk**

Transportation is undergoing deep and significant transformation, seeking to fulfill the promise of connected mobility for people and goods, while limiting its carbon footprint. Autonomous vehicles are potentially changing the economics ownership and use of private automobiles, likely accelerating trends towards greater use of app-based ride hailing and/or sharing by private TNCs (Transportation Network Companies). Several potential business models with varying degrees of ride sharing and public vs. private involvement in the delivery of mobility as a service are presented. Algorithms for shared autonomous fleet management are discussed and illustrated on a small case application. These are then integrated in an intermodal dynamic network modeling framework, which incorporates an agent-based microsimulation of a transit urban network system with shared-ride autonomous vehicles (SAV) as first-mile feeders. The integrated mode choice and dynamic traveler assignment-simulation modeling framework is applied to the Chicago region to evaluate the mobility impact of new services.

About the Speaker

Dr. Hani S. Mahmassani has over 35 years of professional, academic and research experience in the areas of intelligent transportation systems, freight and logistics systems, multimodal systems modeling and optimization, demand forecasting and travel behavior, and real-time operation of transportation and distribution systems. Prior to joining his current position at Northwestern University, he served on the faculties of the University of Maryland and The University of Texas at Austin. He has served as principal investigator on over 150 funded research projects. He is past editor-in-chief and current associate editor of Transportation Science, senior editor of IEEE Transactions on Intelligent Transportation Systems, and founding associate editor of Transportation Research C: Emerging Technologies. He was the recipient of the Transportation Research Board's Thomas Deen Distinguished Lectureship in 2016. Mahmassani received his PhD from the Massachusetts Institute of Technology and MS in transportation engineering from Purdue University.

This seminar is webcast live to a worldwide audience by ASU Engineering – Global Outreach and Extended Education (GOEE). To access the live webcast and archive of previous seminar recordings, please visit: <http://links.asu.edu/ASU-Transportation-Seminar>

Light refreshments will be served. Event is open to the public.



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