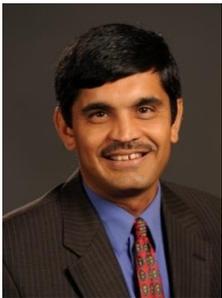




Modeling Individuals' Willingness to Share Trips with Strangers in an Autonomous Vehicle Future



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Speaker's Biographies

Prof. Chandra R. Bhat is the Director of the Data-Supported Transportation Operations and Planning (D-STOP) Tier 1 USDOT University Transportation Center and the Joe J. King Chair in Engineering at The University of Texas at Austin, where he has a joint appointment between the Department of Civil, Architectural and Environmental Engineering (CAEE) and the Department of Economics. He is also currently the Visiting Chair Professor of CEE at PolyU. Prof. Bhat is a world-renowned expert in the area of transportation and urban policy design, with far reaching implications for public health, energy dependence, greenhouse gas emissions, and societal quality of life. Methodologically, he has been a pioneer in the formulation and use of statistical and econometric methods to analyze human choice behavior. His current research includes the social and environmental aspects of transportation, planning implications of Connected and Automated Smart Transportation Systems (CASTS), and data science and predictive analytics. He is a top-cited transportation researcher in the world and his students have won many national and international awards for their MS theses and PhD dissertations. Last year, he received the 2017 Lifetime Achievement in Transportation Research and Education Award from the Council of University Transportation Centers (CUTC).

Date: 10 August 2018 (Friday)

Time: 17:00 – 18:00

Venue: Room Z206, 2/F, Block Z,
The Hong Kong Polytechnic University,
Hung Hom, Kowloon, Hong Kong

Abstract

The potential of dynamic ridesharing as a Mobility-as-a-Service centerpiece in cities that are not dense enough for viable and effective public transit systems is being extensively studied by transportation supply researchers. With the era of Autonomous Vehicles (AVs) quickly approaching, dynamic ridesharing services could have an important role in increasing vehicle occupancy, reducing vehicle miles traveled, and improving traffic conditions. However, the extent to which these potentials can be achieved depends on consumers' disposition to sharing rides. From a travel behavior perspective, two essential elements to the adoption of shared rides are individuals' acceptance of increased travel times associated with pick-up/drop-off of other passengers and their comfort levels with sharing the same vehicle with strangers. The current study develops the notion of willingness to share (WTS), which represents the money value attributed by an individual to traveling alone compared to riding with strangers, to investigate the adoption of shared rides. Using a multivariate analysis approach, we examine current choices and future intentions regarding the use of shared AV rides and estimate individuals' WTS as well as their values of travel time for two distinct trip purposes. Results show that users are less sensitive to the presence of strangers when in a commute trip compared to a leisure-activity trip. We also observe that the travel time added to the trip to serve other passengers may be a greater barrier to the use of shared services compared to the presence of strangers. However, the potential to use travel time productively may help overcome this barrier, especially for high-income individuals and those with graduate degrees.

*** All Interested Are Welcome ***

For further information, please contact Prof. William H.K. Lam at Tel. 2766-6045.

Free Admission. Please reserve your seat with Ms. Connie F.Y. Lam by email: fyc.lam@polyu.edu.hk.

Certificates of attendance will be provided to participants who attend the whole seminar.