

Industrial & Systems Engineering Seminar

Models to Operate and Evaluate Mobility-as-a-Service

Wednesday, September 6

3:15 PM – Refreshments, 3:30 – Graduate Seminar

Mechanical Engineering 4125 A&B



Professor Joseph Y. J. Chow

*Assistant Professor, Department of Civil &
Urban Engineering*

*Deputy Director, C²SMART University
Transportation Center*

New York University

Recent advances in technology have brought about a renaissance in new mobility paradigms along with their own sets of growing pains, whether it's carsharing (e.g. Car2Go in San Diego), microtransit (e.g. Kutsuplus in Helsinki), or shared autonomous vehicle fleets. The need to make use of customer and vehicle real time information in dynamic decision-making for these "mobility as a service" models is greater than ever before.

Dynamic decision-making, particularly in a network context, has a number of challenges. Two areas are: 1) learning models that adequately describe the full customer behavioral responses in scheduling trips throughout the day; and 2) designing dynamic policies such as where to position idle vehicles or whether to switch operational mode over time. Theoretical overview of models to address these challenges, along with a discussion of computational experiments, will be presented.

BIO:

Joseph Chow is an Assistant Professor in the Department of Civil & Urban Engineering and the Deputy Director at the C2SMART Tier-1 University Transportation Center at NYU, and heads BUILT@NYU: the Behavioral Urban Informatics, Logistics, and Transport Laboratory. He is an NSF CAREER award recipient; he serves as the incoming Chair of the Urban Transportation SIG at INFORMS Transportation Science & Logistics Society, and is an appointed member of the Editorial Boards for Transportation Research Part B and the Committee on Transportation Network Modeling (ADB30) at the Transportation Research Board of the National Academies. At NYU he is an Associated Faculty at CUSP and Rudin Center. Prior to NYU, Dr. Chow was the Canada Research Chair at Ryerson University. Chow has over 80 publications to date, of which over 40 are in top journals in the transportation field. He has a Ph.D. in Civil Engineering from UC Irvine ('10), and an M.Eng. ('01) and B.S. ('00) in Civil Engineering from Cornell University with a minor in Applied Math.