Industrial & Systems Engineering
Seminar Announcement

Environment, Economy, and Equity: The UW's Sustainable Transportation Lab

Don MacKenzie, PhD
Civil & Environmental Engineering
University of Washington

Abstract: Research in the UW's Sustainable Transportation Lab is grounded in the conviction that transportation systems must be cost-effective, impose manageable environmental burdens, and provide access to opportunities to all. In this talk I will share several recent projects that apply quantitative analysis in the pursuit of these goals. In the economic dimension, I will summarize our work on modeling the charging behavior of electric vehicle drivers, essential knowledge for effectively optimizing charging network designs. On the environmental side, I will present work estimating the potential energy and emissions impacts of highly automated vehicles, considering a wide range of possible effects. Finally, I will share the results of two studies analyzing the social equity of shared mobility services – one using spatial regression modeling of application programming interface (API) data, the other based on field experiments in Seattle and Boston.

Bio: *Don MacKenzie* is an Assistant Professor of Civil & Environmental Engineering at the University of Washington. He leads the Sustainable Transportation Lab, which develops and evaluates technical and policy solutions for making our transportation system more economically viable and environmentally benign, while providing access to opportunities for all. Professor MacKenzie holds a PhD in Engineering Systems and SM in Technology and Policy, both from the Massachusetts Institute of Technology, and a BASc in Chemical & Biological Engineering from the University of British Columbia. He previously worked on fuel cell and alternative fuels research, and as an analyst for the Union of Concerned Scientists. He is a member of the Transportation Research Board's Standing Committee on Transportation Energy, and chairs its Subcommittee on Energy and Demand Implications of Connected and Automated Vehicles.

Tuesday, February 6, 2018
1:30 – 2:20 p.m.
MEB 235