

Transportation Center Seminar.....**Green Urban Freight Strategies in the New Mobility Era****Dr. Jie (Jane) Lin**

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Materials Engineering; and Research
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**Thursday - May 14, 2015****4:00 - 5:00 pm****Location:**

Transportation Center
Chambers Hall
600 Foster, Evanston
Lower level

Abstract

The rapid advances in wireless communication and ubiquitous mobile is changing the way people and goods move in the new mobility era. I define "new mobility" as having the following features: (1) utilizing wireless communication and mobile computing, (2) real-time response to demand, and (3) resource (e.g., capacity, facility, and information) sharing. Specific to urban freight, one important driving force for increasing volumes of goods and demand for expedited delivery time and reliability by consumers is the fast growing e-commerce industry. On the other hand, environmental and energy concerns are taking center stage in transportation planning, policy making and way of doing business. For example, highway trucks and other heavy vehicles account for 33% of nitrogen oxide (NO_x) and 23.3% of PM₁₀ emissions from all transportation sources. In addition, freight transport accounts for 74% of total transportation energy consumption and fuel cost contributes 39% of the operating cost for the trucking industry (The truckers report 2013). In my talk I'll present two potential green urban freight strategies drawn from my past and ongoing research: urban consolidation center (UCC) and dynamic en-route cargo consolidation. Some of the research questions are "Is UCC the way to go?", "Is Google Express or Uber-like crowdsourced delivery the future of urban goods delivery?". I'll share my thoughts from the energy and environmental point of view.

Biography

Dr. Lin is an associate Professor of Department of Civil and Materials Engineering and holds a joint appointment with the Institute for Environmental Science and Policy (IESP) at the University of Illinois at Chicago (UIC). Her research is focused on modeling of transportation environmental impacts, freight transportation and logistics, and intelligent transportation systems (ITS). Dr. Lin is Chair of the Transportation and Air Quality Committee (ADC20) of the Transportation Research Board, National Research Council of the National Academies (2011-2017). She serves on the editorial boards of Transportation Research Part A: Policy and Practice (2008-present) and the International Journal of Sustainable Transportation (2011-present). Dr. received her MS and PhD degrees from University of California, Davis, and BS from Tsinghua University, Beijing, China. She was a post-doctoral fellow at the Harvard University Center for the Environment, Cambridge, MA between 2002-2003.