

The FMRI and ITE Student Chapter at FAU Presents:

The Next Delivery to Your Door: Looking at the Future Energy Impacts of Innovative Freight Delivery Technologies

Lecture Presentation By: Victor Walker and Amy Moore

Abstract: Consumer behavior is driving shifts in freight delivery as expectations for faster and more convenient solutions increase. At the same time, new technologies and approaches are creating more options for fulfilling deliveries. This research is sponsored by the Department of Energy, and looks at some of the alternatives for freight delivery in intra-city environments and the energy implications of wide-spread adoption of these new technologies. A major focus of this research is on the impacts of urban drone deliveries that many are looking to as a part of the solution for future delivery, with emphasis on the unexpected results from unique freight energy and battery testing performed at the Idaho National Laboratory. Another focus of this research is on the modeling of different freight movement and delivery scenarios for a major parcel delivery company using different techniques and technologies such as parcel lockers and electric vehicles. The objective of these scenarios is to provide a basis by which the overall energy and mobility impacts of these solutions for businesses can be compared. This innovative research is crucial for helping to gauge what the future impacts of freight might be, and how they might be changing the way that consumers shop and receive freight.

Victor's Bio: Victor Walker is part of the Idaho National Lab's Transportation and Advanced Vehicles Group. As part of the Department of Energy's research labs, the group contributes ongoing research in many areas regarding the future of transportation. Their work includes focus on electrification, connectivity, intelligence, and the future impacts of technology. Victor specializes in research regarding freight, mobility decision making, and autonomy. Previous work at INL includes research in bio-fuel conversions and intelligent robotics systems. He has Bachelors and Master's Degrees in Computer Science specializing in Intelligent Systems. Before joining INL he worked for IBM in Colorado and Sweden.

Amy's Bio: Amy M. Moore is a Transportation Planning Engineer in the Transportation Planning and Decision Science Group at the Oak Ridge National Laboratory. She received her Ph.D. in Civil Engineering with a concentration in Transportation Systems Engineering from the Georgia Institute of Technology in December 2016. Since 2009, the majority of her work has involved GIS, with a focus on transportation and infrastructure planning. In her staff position at ORNL, her focus has primarily been on urban freight network modeling. She has also honed in on her GIS skillset and found ways to apply GIS techniques to solve problems involving transportation routing and planning in an effort to optimize energy usage at the systems-level.

Date: March 13, 2019

Time: 11:00 AM

Place: Building #4 (Instructional Services),

Room 113