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Institute for Sustainable Transportation and Logistics

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Transportation Systems Engineering Seminar Series

Building a Sense of Place through Non Motorized Travel

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1:30 PM - 2:30 PM
Ketter Hall, room 140
University at Buffalo

Dr. Chen is currently an Assistant Professor at the Golisano Institute for Sustainability at RIT. Additionally, he has specific expertise on the design of statistical experiments, simulation and econometrics, which will be critical for designing choice experiments that produce response data with desired statistical properties. Dr. Chen received his PhD from the University of Maryland, College Park, and BS and MS degrees from the University of Texas at Austin, all in Civil Engineering. His research agenda focuses on understanding and modeling the dynamics of user responses to real-time information systems and new communication technologies in transportation systems. He has worked on models of route and departure time choice, as well as activity-based models of travel demand. He has expertise in the development, estimation and application of advanced travel demand models, including his recent work on developing choice models with randomly distributed values of time (user heterogeneity), which have been integrated within dynamic traffic assignment modeling platforms for predicting responses to congestion pricing and varying weather patterns. Dr. Chen is currently a member of the TRB standing Committee ADB20, on Information and Communication Technologies (ICT) and Travel Choices.

ABSTRACT: Sense of Place serves as a guiding principle in many built environment designs, including those for streetscapes and public spaces. Accordingly, urban planners and engineers associate locations having a Sense of Place with visitors developing a strong identity or character for a particular location. Many organizations, such as the United Nations Environment Program (UNEP), recognize Sense of Place as a necessary component within a holistic view of human-environment ecosystems. This seminar examines the relationships among: (i) Sense of Place; (ii) non-motorized sustainable travel choices and accessibility; and (iii) adoption and use of mobile information and communication technologies (ICT). Previous research agrees on the following defining dimensions of Sense of Place: (i) physical characteristics; (ii) visitor perceived affects and meanings; (iii) human activities occurring; and (iv) social interactions. However, a gap in the research exists with respect to non-motorized travel and ICT impacts, which allow visitors ubiquitous access to information and reviews from past visitors. Also, non-motorized travel modes allow more direct exposure en-route to the location and may have a more positive influence on Sense of Place, relative to private modes. To address this gap, integrated latent variable econometric models that relate latent factors with observed choices were developed and estimated using data from an on-site visitor survey. These surveys were conducted at three distinct neighborhoods in Rochester, NY. The results indicate that non-motorized travel is positively associated with Sense of Place along several latent dimensions, such as Identity and Attachment. However, the impacts of ICT were less strong, relative to non-motorized travel. Furthermore, the results suggest that greater variation and diversity in perceptions of place from visitors are associated with locations with a strong Sense of Place.