Random Parameter Models for Estimating Statewide Daily Bicycle Counts using Crowdsourced Data

Seminar summary

In recent years, safety concerns about the non-motorized roadway users has been increasing. This concern was exacerbated due to the COVID pandemic that had an increasing impact on the number of non-motorized roadway users. Many city and state agencies have installed bikeway and shared-use facilities to accommodate the increasing demand. However, the lack of non-motorized traffic counts had a significant impact on the evidence-based decisions the agencies have taken in making reliable investments in non-motorized facilities. To address this limitation, there is an increasing interest in using the emerging mobility and crowdsourced data to estimate the non-motorized user counts. Data created by the crowdsourced information can be considered under the realm of big data and present the same challenges as the big data. However, despite being a big data, crowdsourced data still represent a small percentage of non-motorized users. This percentage, on the other hand, can change based on the location, land use, non-motorized facility type, socioeconomic, demographic and meteorological factors. In this seminar we will discuss the innovative approaches to using data from emerging sources to estimate the non-motorized roadway user counts. This seminar series is co-organized by Department of Landscape Architecture and Urban Planning, Transportation Institute, and Institute of Data Science at Texas A&M University.

Speaker's information

Dr. Bahar Dadashova is an Assistant Research Scientist at the Texas A&M Transportation Institute. She received B.S. degree in Economics from Azerbaijan State Economic University, M.S. degree in Mathematical Engineering from Universidad Carlos II de Madrid and Ph.D. in Mechanical Engineering from Universidad Politécnica de Madrid in 2014. Her research interests include but are not limited to the analytics of transportation safety, operations, mobility and planning data. Her recent work explores the impacts of emerging transportation modes on public health and equity, non-motorized user safety and mobility, as well as the potential and use of emerging mobility data to address the questions in transportation research. She has contributed to this field through various publications and research projects funded by the as the Robert Wood Johnson Foundation (RWJF), the National Cooperative Highway Research Program (NCHRP), the U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), Texas Department of Transportation (TxDOT), and others.

Time: 8:00-9:00 p.m. US Central Time (Thursday, May 20, 2021)
Zoom Meeting ID: 732 641 0814 Passcode: 575829
Direct Link: https://tamu.zoom.us/j/7326410814?pwd=cGZKY045dmVkdzVRLy9MYWhocWorQT09

Faculty Host: Xinyue Ye, LAUP & Urban Data Science Lab

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