TCS 2017 Data Workshop

Highlights/Pointers of Recent NITC Research Projects on Data

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Projects

- Bike-Ped Portal
- All-in-one Spatial Activity Processer (ASAP)
- Vehicle Wheel Motion (VWM) and Automatic Vehicle Location (AVL) data
- Data integration for integrated models
- Ongoing projects

Bike-Ped Portal

A national archive for bicycle and pedestrian count data. Check bicycle and pedestrian traffic volumes around the U.S. and add your own count data. Over 4 million count records from five states

- Researchers: Krista Nordback, Kristin Tufte
- URLs:
 - http://bp.its.pdx.edu/
 - http://trec.pdx.edu/research/project/817
- Bike-Ped Portal Phase II Ongoing

Improve Bike-Ped Portal usability for both data providers and data users

- Researchers: Hau Hagedorn, Kristin Tufte, Nathan McNeil
- Webinar (forthcoming on 12/19):
- http://nitc.trec.pdx.edu/events/professional-development/webinarbike-ped-portal

All-in-one Spatial Activity Processer (ASAP)

Simplifies and standardizes GPS and related spatial activity data processing; Detects trips, travel modes and route activities from GPS traces and accelerometer data

- Researchers: Joe Broach, Jennifer Dill
- URL:
 - Demo: http://web.pdx.edu/~jbroach/asap_demo/
 - Project page

VWM and Bus AVL data

Uses Vehicle wheel motion (VWM) detection data and TriMet's automatic vehicle location (AVL) data to quantify congestion and produce performance measures for arterials at the regional scale

- Researchers: Miguel Figliozzi, Robert Bertini
- Report

Data Integration for Integrated Models

Explores methods to facilitate data integration/fusion from multiple sources for integrated transportation and land use models

- Researcher: Liming Wang
- Report

Ongoing projects

• LRT/BRT/SCT/CRT Station Area Databases, Arthur Nelson

A LRT/BRT/SCT/CRT station area database for 12 light rail transit (LRT) systems, 9 bus rapid transit (BRT) systems, 4 streetcar transit (SCT), and 5 commuter rail transit (CRT) systems that is being updated to 2015.

• Bicycle and Pedestrian Traffic Monitoring Data Quality, Nathan McNeil and Kristin Tufte

Creates a practical method to quality check bicycle and pedestrian traffic counts.