

UTC Project Information	
Project Title	Performance Monitoring for Safe and Livable Communities: Fusing Data, to Improve Arterial Operations for All Users
University	University of Idaho
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Funding Source(s) and Amounts Provided (by each agency or organization)	\$239967.00
Total Project Cost	\$239967.00
Agency ID or Contract Number	DTRT12-G-UTC10
Start and End Dates	09/01/2012~9/30/2014
Brief Description of Research Project	<p>Measuring or analyzing transportation system performance occupies a large transportation professional's time. So, improving performance measurement methods in terms of accuracy and cost are important contributions. This research documents development on five fronts for multi-modal transportation system performance measurement. Researchers developed a performance measurement development tool that leverages the advent of high resolution controller data. The research targets the use of high resolution controller data output from simulation to shorten the performance measurement development cycle. On another front, researchers developed and tested a GIS tool to process sparse bicycle counts and estimate network wide link bicycle counts, enabling transportation agencies to predict bike usage throughout the network. Additionally, researchers developed a portable wireless Bluetooth data collection system that is much more cost effective for short-term studies than existing products on the market. Pedestrian performance measurement is so elusive that obtaining counts is challenging. Researchers developed an application for an off-the-shelf product to count pedestrians using the Microsoft Kinect video game sensor. Finally, researchers developed a method to estimate turning movement counts for most signalized intersections and some unsignalized intersections from lane-by-lane counts. This last development leverages common matrix analysis techniques to assess data collection plans for solution feasibility and provides a solution if it is feasible.</p>
Describe Implementation of Research Outcomes (or why not implemented)	

Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none"> • Reports • Project website 	Performance Monitoring for Safe and Livable Communities: Fusing Data, to Improve Arterial Operations for All Users http://depts.washington.edu/pactrans/wp-content/uploads/2012/12/PacTrans-5-739436-Abdel-Rahim-Ahmed-Multi-UI-Lead.pdf



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