

# UTRC-REGION II NEWSWIRE

## UTRC Press Release

Tuesday, April 16, 2013

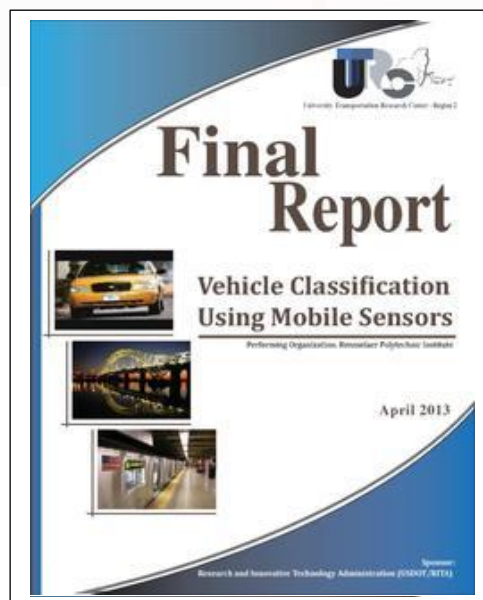
Contact: Nadia Aslam  
Assistant Director for Technology Transfer  
University Transportation Research Center - Region 2  
Tel: 212-650-8051  
Email: [nadia@utrc2.org](mailto:nadia@utrc2.org)

### The University Transportation Research Center Publishes the Final Report for the Research Project Titled: "Vehicle Classification Using Mobile Sensors"

UTRC has released a final report for the research titled: "Vehicle Classification Using Mobile Sensors", funded by the Research and Innovative Technology Administration (RITA/USDOT). The principal investigator was Dr. Xuegang (Jeff) Ban, an assistant professor at Rensselaer Polytechnic Institute.

In this research, the feasibility of using mobile traffic sensors for binary vehicle classification on arterial roads is investigated. Features (e.g. speed related, acceleration/deceleration related, etc.) are extracted from vehicle traces (passenger cars, trucks) collected from real world arterial roads. Machine learning techniques such as support vector machines (SVM) are developed to distinguish passenger cars from trucks using these features. Despite many issues and future research questions remaining unsolved in this project, the proposed research does show the feasibility and potential of using mobile data for vehicle classification. It reveals that acceleration/deceleration related features are the most critical for vehicle classification using mobile data. Such acceleration/deceleration based vehicle classification methods using advanced machine learning techniques have the potential to help build a low-cost, wide-area vehicle classification system.

The full report is available for a free download at the UTRC website: <http://www.utrc2.org/publications/vehicle-classification-final>



Like us on Facebook 

Follow us on twitter

View our profile on Linked 

## About The University Transportation Research Center

The University Transportation Research Center (UTRC) is a USDOT Regional Transportation Center addressing surface transportation operations, management, design economics and planning. The Region 2 University Transportation Research Center is one of ten original National Centers, established in 1987, in recognition that transportation plays a key role in the nation's economy and in the quality of people's lives. Located at the City University of New York, the Center is a Consortium of 17 major Academic Institutions in New York, New Jersey, and Puerto Rico. Through the Grant supporting the Center, the mission incorporates research, education and the transfer of technology in the field of transportation. Academically based, the work of Faculty and Students – graduate and undergraduate provide a critical link in resolving our national and regional transportation problems while training the future and current professionals who address our transportation system and their customers on a daily basis. For more information, visit [www.utrc2.org](http://www.utrc2.org).