

# **University Transportation Centers.....**

# WHERE TRANSPORTATION IS MADE SAFER

At University Transportation Center's around the nation, the technology of tomorrow is making transportation safer today. The US Department of Transportation's University Transportation Center program helps fund projects that make transportation safer. In partnership with the private sector, US DOT, and municipal agencies, University Transportation Centers are developing technology, business models, and expertise in making vehicles, roads, and our transit system safer for all users. Here are some examples:

### University Transportation Center Focus Safety

## Rapid Transportation Structure Evaluation Toolkit Oregon Institute of Technology

Summary: The most expensive and critical links in the nation's transportation network are its

bridges. While the nation's bridge management system is robust and well administered, the tools needed to evaluate individual bridges to determine their condition are currently highly specialized. This project developed a cost-effective, accurate, and easily deployed evaluation tool using widely available mobile technology (specifically iPods) to measure the dynamic structural response of a bridge subjected to harmonic forcing. The outcome of the project is the Rapidly Deployable Structural Evaluation Toolkit for Global Observation, or RDSETGO. It consists of a portable electromechanical shaker that supplies a harmonic force to a structure, and a network of iPods to measure acceleration response, all contained in easily transportable plastic totes. As a result of this work, the



RDSETGO system is sufficiently developed to be considered for regular deployment by bridge inspection personnel.

UTC: National Institute for Transportation and Communities (NITC)

UTC Partners: Oregon Institute of Technology

**Project Purpose:** To develop a structural evaluation toolkit that can be used to supplement bridge (and other transportation structure) inspection and assist in structural evaluations after significant events like earthquakes.

#### UTC Funding / Budget: \$74,050

#### Partner Resources: \$88,860

**About the University Transportation Center (UTC) Program:** University Transportation Centers is where innovation begins, it is where we are training a transportation workforce for the 21<sup>st</sup> century, it is where projects are designed better, constructed faster and where our transportation system is made safer. UTCs have used funding authorized by the FAST act to leverage funds from private, state, and local sources to conduct research, train the workforce of tomorrow and produce studies that make our transportation safer, more efficient, and more secure.

About RETRC -- RETRC is a legislative education corporation identified as a 501(c)(6). The purpose of RETRC is to educate, promote, and advocate for the University Transportation Centers. No Federal Funds have been used to support RETRC or its activities.

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