

Project Information Form

Project Title	Field Validation of a Drive-By Bridge Inspection System with Wireless BWIM + NDE Devices
University	Georgia Institute of Technology, University of Alabama at Birmingham
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Funding Source(s) and Amounts Provided (by each agency or organization)	\$ 210,000 (UTC) + \$180,000 (GDOT) + \$100,000 (ALDOT)
Total Project Cost	\$490,000
Agency ID or Contract Number	DTRT12GUTC12
Start and End Dates	November 1, 2013 - November 1, 2015
Brief Description of Research Project	In this project, a wireless sensor network will be investigated for installation on a heavy truck to record the dynamic response of the truck as it crosses a bridge mounted with BWIM+NDE devices. The sensors installed in the vehicle include accelerometers to measure vibration and gyroscopes to capture vehicle pitching motion. As the instrumented vehicle approaches the bridge, BWIM+NDE system wirelessly establishes communication with wireless sensors on the vehicle to synchronize time and initiate data collection. As the truck crosses the bridge, the wireless sensors on the truck transmit vibration and pitching data to the wireless BWIM+NDE server for automatic integration with bridge response data. Experimental validation of the proposed wireless system will be performed both in the lab and in the field
Describe Implementation of Research Outcomes (or why not implemented)	The project is undergoing research and development phase.

(Attach Any Photos)	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none">• Reports• Project website	http://nctspm.gatech.edu/field-validation-drive-by-bridge