



UTC Project Information	
Project Title: On-Board-Diagnostics (OBD) Data Integration into Traffic Microsimulation for Vehicle-Specific Fuel Use and Emissions Modeling and In-Vehicle App Testing	
University	University of Florida
Principal Investigator	Scott S. Washburn
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Funding Source(s) and Amounts Provided (by each agency/organization)	University of Florida: \$95,018 N.C. State University: \$118,025
Total Project Cost	\$213,043
Agency ID or Contract Number	2013-034S
Start and End Dates	August 1, 2013 – (active)
Brief Description of Research Project	
<p>This research has three objectives: (1) develop and implement a method for predicting second-by-second (1 Hz) values of selected OBD parameters to simulate the real-time OBD data that can be obtained from an actual vehicle; (2) develop predictive models for vehicle energy use and emissions based on use of OBD parameters as the explanatory variables; and (3) implement the new predictive models for OBD Parameter IDs (PIDs), and the new OBD parameter-based fuel use and emission models, into CORSIM NG for the purpose of simulating OBD parameter values, fuel use, and emission rates for individual vehicles as they operate on the road network. The outcome of this work will be a new capability to simulate</p>	

<p>OBD data for use in developing new in-vehicle software applications and to improve the accuracy of fuel use and emissions estimates needed for transportation planning.</p>	
<p>Describe Implementation of Research Outcomes (or why not implemented)</p>	
<p>Place Any Photos Here</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>(a) PEMS Inside the Vehicle</p> </div> <div style="text-align: center;">  <p>(b) PEMS Exhaust Sampling Line Connected to the Vehicle Exhaust Pipe</p> </div> </div>
<p>Impact/Benefits of Implementation (actual, not anticipated)</p>	
<p>Project Website</p>	<p>Abstract on STRIDE Website: http://stride.ce.ufl.edu/lamondia-abstract</p> <p>Information on TRB/TRID: https://trid.trb.org/view/2013/P/1343134</p>

