



<b>UTC Project Information</b>	
Project Title	CAV Developed Vehicles as Real-Time Sensors for Assessing Greenhouse Gases
University	Central State University
Principal Investigator	Krishnakumar Nedunuri Ramanitharan Kandiah
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Funding Source(s) and Amounts Provided (by each agency or organization)	CCAT (\$149,814)
Total Project Cost	\$149,814
Agency ID or Contract Number	69A3551747105
Start and End Dates	6/11/2018 – 3/31/2023
Brief Abstract of Research Project	CSU proposes to study air pollutants under different traffic congestion scenarios along selected freeways in Ohio. The study captures pollution intensities in different seasons of the year representing different atmospheric stabilities and concentration of pollutants as a function of hold up times and traffic densities. MOVES will be used to generate several scenarios to determine emissions from vehicles in a simulated traffic congestion scenario. ODOT traffic data will be used in these scenarios. Resulting air pollution from emissions will be determined using a dispersion model and compared with GHG standards for emissions. A model will be developed to assess severity of air pollution, which will be used to forecast air quality index for the congested areas on freeways. CAV technology will then be deployed to communicate the information to travelers on freeways on radio channels approaching congested areas.
Most Relevant CCAT Research Thrusts	<input checked="" type="checkbox"/> Enabling Technology <input type="checkbox"/> Policy & Planning <input checked="" type="checkbox"/> Human Factors <input type="checkbox"/> Infrastructure Design & Management <input type="checkbox"/> Control & Operations <input checked="" type="checkbox"/> Modeling & Implementation
Describe Implementation of Research Outcomes (or why not implemented)  Place Any Photos Here	An inventory of priority Pollutant and greenhouse gas emissions from On-Road Vehicles in Franklin County was conducted.
Impacts/Benefits of Implementation (actual, not anticipated)	

Web Links

- Reports
- Project website

[ccat.umtri.umich.edu](http://ccat.umtri.umich.edu)