
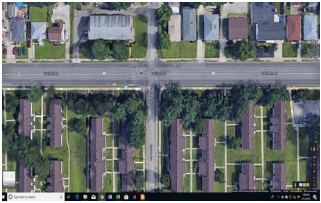




<b>UTC Project Information</b>	
Project Title	Access Control at Major-Minor Intersection through CAV in Mixed Traffic
University	University of Akron
Principal Investigator	Ping Yi, Professor
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Funding Source(s) and Amounts Provided (by each agency or organization)	CCAT - \$97,400 The University of Akron matching fund – \$97,400
Total Project Cost	\$194,800
Agency ID or Contract Number	69A3551747105
Start and End Dates	11/1/2016 - 08/30/2021
Brief Abstract of Research Project	This research studies potential gap utilization at intersection entrances when CAV is mixed with ordinary vehicles (non-CAV). Study of gap characteristics helps the design and implementation of responsive signal control schemes that utilize CAV to adjust gaps of mainline vehicles for the minor street vehicles to enter the intersection. Traffic flow analysis will be conducted and math models developed to assess the effectiveness of the application in different traffic scenarios. Simulation tests will be made to help define model parameters. Field testing will demonstrate the feasibility of application and evaluate the reliability and impact of the control logic and the integrated system.
Most Relevant CCAT Research Thrusts	Control and Operation
Describe Implementation of Research Outcomes (or why not implemented)	This project overall is a feasibility study to improve intersection operation. The control logic for traffic responsive signals will be tested in the field to demonstrate the effectiveness and help define hardware/software needs for practical implementations in the future.
Place Any Photos Here	 

<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<p>The benefits of the project include reduction in signal disruptions due to vehicles entering intersections from minor street. As a result, the improved operation can help reduce delay on the mainline road as well as on the minor street. The expected benefits will be estimated at different levels of CAV market penetration.</p>
<p>Web Links</p> <ul style="list-style-type: none"><li>• Reports</li><li>• Project website</li></ul>	<p><a href="http://ccat.umtri.umich.edu">ccat.umtri.umich.edu</a></p>