



UTC Project Information	
Project Title	Smart Interaction – Pedestrians and vehicles in a CAV environment
University	Purdue University
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Funding Source(s) and Amounts Provided (by each agency or organization)	\$68,034 JTRP \$27,356 Purdue University
Total Project Cost	\$187,420
Agency ID or Contract Number	69A3551747105
Start and End Dates	1 January 2019 / 31 December 2019
Brief Abstract of Research Project	<p>“Semi-controlled” crosswalks exist because of the desire for pedestrians to cross there and the use of stop signs or signals is not warranted. However, there is a sufficient amount of interaction between pedestrians and vehicles at “semi-controlled” crosswalks to be concerned about the time at which “negotiations” between pedestrians and human drivers are replaced by interactions between pedestrians and self-driving vehicles. If the appropriate sensor and control technology can lead to an alternative to “CAVs always yield to pedestrians”, we will have achieved a form of “smart interaction”, which can be a useful element of smart mobility.</p>
Most Relevant CCAT Research Thrusts (choose all applicable)	<input type="checkbox"/> Enabling Technology <input type="checkbox"/> Planning and Policy <input checked="" type="checkbox"/> Human Factors <input type="checkbox"/> Infrastructure Design and Management <input type="checkbox"/> Control and Operations <input checked="" type="checkbox"/> Models and Implementation

Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	The ability to apply the study findings to the design of crossing locations and, ultimately, to the programming of self-driving vehicles.
Impacts/Benefits of Implementation (actual, not anticipated)	Increase pedestrian safety without severely compromising delay to motor vehicles.
Web Links <ul style="list-style-type: none">• Reports• Project website	ccat.umtri.umich.edu