



| UTC Project Information | |
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| Project Title | Smart Interaction – Pedestrians and vehicles in a CAV environment |
| University | Purdue University |
| Principal Investigator | Jon D. Fricker |
| PI Contact Information | 765-494-2205 fricker@purdue.edu |
| Funding Source(s) and Amounts Provided (by each agency or organization) | CCAT: \$93, 030 Cost share partners: \$95, 390 (\$68,034 JTRP and \$27,356 Purdue University) |
| Total Project Cost | \$187,420 |
| Agency ID or Contract Nr | 69A3551747105 |
| Start and End Dates | 01/01/2019 - 09/30/2022 |
| Brief Abstract of Research Project | “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. |
| Most Relevant CCAT Research Thrusts (choose all applicable) | <input type="checkbox"/> Control & Operations <input type="checkbox"/> Enabling Technology <input checked="" type="checkbox"/> Human Factors <input type="checkbox"/> Infrastructure Design & Management <input checked="" type="checkbox"/> Modeling & Implementation <input type="checkbox"/> Policy & Planning |
| 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 purdue.edu/discoverypark/cav/nextrans/index.php |