UTC Project Information

Project Title	CAV-Based Intersection Maneuver Assist Systems (CAVIMAS) and Their Impact on Driver Behavior, Acceptance, and Safety
University	University of Michigan
Principal Investigator	S. Bao, A. K. Pradhan, J. Sullivan
PI Contact Information	shanbao@umich.edu, jsully@umich.edu, anujkp@umich.edu
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Total Project Cost	$150,000
Agency ID or Contract Number	69A3551747105
Start and End Dates	5/1/2017 - 12/31/2018
Brief Abstract of Research Project	40% of the estimated 5.8 million crashes in the US in 2008 were intersection-related, with most of these having driver-related reasons attributed as the critical reasons for the crashes. Most of these human-related reasons have the potential to be mitigated by leveraging thoughtful deployments of vehicle-to-infrastructure (V2I) and vehicle-to-vehicle (V2V) safety management solutions in tandem with human factors-based interventions relating to the content and presentation of such solutions. This project designed and experimentally evaluated a conceptual system - Connected and Automated Vehicle based Intersection Maneuver Assist Systems (CAVIMAS) - aimed at assisting drivers with intersection maneuvers by leveraging connected infrastructure and providing real-time guidance and warnings, and active vehicle controls. This was undertaken in an advanced driving simulation environment, and the system was evaluated via a user study to investigate drivers' interactions with such systems, including their perceptions, acceptance, and trust related behaviors.
Most Relevant CCAT Research Thrusts	Enabling Technologies

Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	Research outcomes were based on a conceptual system that was implemented in a virtual driving simulation environment. Any real-life implementation of such research outcomes would be relevant insofar as such systems were indeed deployed or deployable. Given the evaluation and findings of the conceptual system, potential implementations of the research outcomes would be relevant for subsequent follow-up research wherein the systems could be implemented in a more naturalistic setting such as test tracks.
Impacts/Benefits of Implementation (actual, not anticipated)	No research outcomes implemented so far.
Web Links • Reports • Project website	ccat.umtri.umich.edu