UTC Project Information	
Project Title	Preventing Crashes in Mixed Traffic with Automated and Human-Driven Vehicles
University	Texas A&M University/San Diego State University
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Funding Source(s) and Amounts Provided (by each agency or organization)	Safe-D (Federal): $141,163 Texas A&M Engineering Experiment Station (TEES) match source (Non-Federal): $11,485 San Diego State University match source (Non-Federal): $20,000
Total Project Cost	$172,648
Agency ID or Contract Number	Grant No: 69A3551747115 Project: 03-072
Start and End Dates	05/01/2018 - 08/31/2019
Brief Description of Research Project	While safety is the ultimate goal of designing connected automated vehicles (CAVs), in many instances, CAVs' decisions do not match the expectations of human drivers (e.g., 3-second stopping rules versus rolling stops performed by human drivers). Such instances can lead to crashes/near-crashes; for instance, in 18 out of 26 crashes involving CAVs in California through February 2017, a CAV was rear-ended by a human driver at an intersection. Unfortunately, the state-of- the-art in CAV safety analysis is focused on actual and simulated miles driven, which are shown to be infeasible to apply after each update (software and/or hardware). Accordingly, this project is expected to bring insight from traffic safety analysis to develop a systematic approach for CAV safety evaluation. This study will identify the factors that contribute to crashes in mixed traffic with automated and human-driven vehicles through data analysis, simulation, and field tests. Moreover, it will develop measures and guidelines to minimize the risk of such crashes. The findings of this study are expected to significantly enhance the safety of operating CAVs.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	1) Final report: the findings of this study will be available through a final report. 2) Guidelines for automated vehicle safety assessment, which will be shared through the project website, presented in various conferences, and shared with automotive OEMs and interested technology sector companies. 3) Organizing short presentations (1-hour each) and pop-up classes open to the Texas A&M University students and faculty.

	5) Organizing a session during the Automated Vehicle Symposium (AVS).
Impacts/Benefits of Implementation (actual, not anticipated)	This project will provide guidelines for automated vehicle safety assessment, which will significantly enhance the safety of operating automated vehicles in mixed driving environments.
Web Links • Reports • Project website	