

Date of Last Update (edit each time): **09/07/2021**

UTC Project Information	
Project Title	Critical Areas in Advanced Driver Assistance Systems Safety: Point of Sale and Crash Reporting
University	Texas A&M University
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Funding Source(s) and Amounts Provided (by each agency or organization)	Safe-D (Federal): [Salary match here?]
Total Project Cost	
Agency ID or Contract Number	Grant No: 69A3551747115 Project: 608361-66003
Start and End Dates	09/01/2021 – 08/31/2023
Brief Description of Research Project	Automated vehicle technologies vary from simple alerts to partially automated driving tasks that are increasingly available in today's vehicles. Advanced driver assistance systems (ADAS) seek to alert a driver to critical events (e.g., forward collision warning) or even intervene (e.g., emergency braking, lane-keeping steering) to prevent crashes. These technologies, however, are not available equally across the passenger vehicle fleet, nor is there standardization in how their uses and limitations are marketed to potential buyers or demonstrated at point of sale, including by increasingly popular online "dealerships" like Vroom and Carvana. The proliferation of ADAS has also outpaced crash scene data collection methods and updates to current crash investigation forms. ADAS variables are not currently included in the Model Minimum Uniform Crash Criteria (MMUCC) guidelines and thus unlikely to exist on crash reports for most states. Realizing the full benefit of Advanced Driver Assistance Systems (ADAS) relies on salespeople, consumers, and law enforcement understanding their benefits and limitations in improving traffic safety. Through three interrelated studies, this project will investigate the state of knowledge and current practices on how ADAS technologies are marketed, sold, and demonstrated at point-of-sale, how

	<p>information on ADAS is collected in crash reports, and what existing crash data reveal about the state of knowledge on ADAS in crash involvement. This project addresses gaps that create a substantial safety risk where salespeople, drivers, and law enforcement may not understand the correct use and limitations of ADAS.</p>																																																					
<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<p>EWD activities and products:</p> <table border="1" data-bbox="609 407 1427 1058"> <tr> <td data-bbox="609 407 1089 516">Undergraduate students present at TAMU Undergraduate Research Symposium</td> <td data-bbox="1089 407 1317 516">February 2022</td> <td data-bbox="1317 407 1427 516">N</td> </tr> <tr> <td data-bbox="609 516 1089 552">Graduate students submit to TRB</td> <td data-bbox="1089 516 1317 552">August 2022</td> <td data-bbox="1317 516 1427 552">N</td> </tr> <tr> <td data-bbox="609 552 1089 625">Graduate students present in College of Architecture Research Symposium</td> <td data-bbox="1089 552 1317 625">October 2022</td> <td data-bbox="1317 552 1427 625">N</td> </tr> <tr> <td data-bbox="609 625 1089 735">Undergraduate students present at TAMU Undergraduate Research Symposium</td> <td data-bbox="1089 625 1317 735">February 2023</td> <td data-bbox="1317 625 1427 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	Webinar: Safe-D UTC	7/1/23	N
	Workshop: International Association of Chiefs of Police annual conference, San Diego, CA	10/15/23	N
	Deliverables:		
	Literature review (2015-2021)	12/15/21	N
	Inventory: ADAS availability by model and trim (Big 5 US, top 5 worldwide, top selling models)	12/15/21	N
	Paper 2.1: ADAS research meta-review	2/1/22	N
	Paper 2.2: Marketing/sales practices	5/1/22	N
	CISS crash record ADAS database	6/1/22	N
	Paper 2.3/4.1: Police/crash reporting	8/31/22	N
	Paper 3.1: Qualitative research on ADAS sales	5/1/23	N
	Paper 4.2: Qualitative research into law enforcement/crash data collection	6/1/23	N
	Final Dataset and Metadata Uploaded to VTTI Dataverse	5/1/23	N
	Final Project Report	8/1/23	N
Impacts/Benefits of Implementation (actual, not anticipated)	<p>Local, regional, and state law enforcement agencies will benefit from improved data collection and training related to ADAS. Improvements to point of sale related to safety features can benefit both individual and societal-level safety, as can better understanding of how drivers can be trained to properly use and understand ADAS. Automotive OEMs and industry stakeholders, including both local dealerships and national automobile groups, may benefit from better understanding how to educate salespeople and consumers about ADAS. The academic community will benefit from filling in some of the gaps in the knowledge base about ADAS, and improvements to data collection for future research.</p> <p>An important expected audience for this project is government agencies like NHTSA that are wrestling with the rapidly changing landscape of ADAS. The project will culminate with policy and regulatory recommendations aimed at both point of sale and crash data collection, including for the Model Minimum Uniform Crash Criteria, and that will be disseminated through the webinars, press releases, and direct outreach to staff at the appropriate agencies. The products generated could prevent substantial loss of life due to ADAS-related crashes.</p>		
Web Links	<ul style="list-style-type: none"> • Reports • Project website <p>https://safed.vtti.vt.edu/projects/critical-areas-in-advanced-driver-assistance-systems-safety-point-of-sale-and-crash-reporting/</p>		

