

STRIDE Southeastern Transportation Research, Innovation, Development and Education Center

UTC Project Information	
Project Title	Utilization of Connectivity and Automation in Support of Transportation Agencies' Decision Making, Phase II (Project H6)
University	Team: Florida International University, North Carolina State University/ITRE, Georgia Institute of Technology, University of Florida
Principal Investigator	Mohammed Hadi, Ph.D., Florida International University
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Funding Source(s) and Amounts Provided (by each agency or organization)	STRIDE: \$329,692
Total Project Cost	\$329,692
Agency ID or Contract Number	69A3551747104
Start and End Dates	May 15, 2022 to July 31, 2023
Brief Description of Research Project	Advanced technology vehicles (ATV) including connected vehicles (CV), non-connected automated vehicles (AV), and connected and automated vehicle (CAV) technologies and applications promise transformative changes in transportation system performance. Agencies need the capability to assess the planning, design, operations, and management implications of the presence of such vehicles with different levels of connectivity and automation on system performance. In addition, agencies need to assess the impacts of these technologies as part of their decision-making processes to plan, design, operate, and manage the transportation system. Phase 1 of this project provided a basis to assist agencies that are considering the use of simulation for CAV analysis. The Phase 1 effort produced a comprehensive review of the state of practice in CAV simulation, an identification of the needs of transportation agencies in analyzing CAVs based on stakeholder inputs, guidance and framework to enable the simulation of CAV, and initial examples of utilizing microscopic simulation models to model CAV applications. The proposed Phase 2 of the project will build on the achievement of Phase 1 by applying the framework and guidance developed in Phase 1. Phase 2 will also involve further identification, development, and refinement of methods and models for evaluating CAV operations and their interactions with traditional vehicles and the infrastructure. Phase 2 will demonstrate the use of the guidance developed in Phase 1 by applying it to use cases in the Southeast



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	region. The research team will select three case studies to apply the framework, methods, and algorithms identified and/or developed in the project. The research team will continue the involvement with the public and private agency stakeholders to identify use cases and to facilitate the adoption of the developed methods.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	Not available yet.
Impacts/Benefits of Implementation (actual, not anticipated)	Not available yet.
Web Links	https://stride.ce.ufl.edu/project-h6/