



Center for Advanced Multimodal Mobility Solutions and Education

UTC Project Information – CAMMSE @ UNC Charlotte	
Project Title	Development of Continuous Time, Temporally Constrained and Behaviorally Consistent Tour Pattern Generation System for Modeling the Impacts of Autonomous Vehicle Future
University	The University of Connecticut
Principal Investigator	Karthik Charan Konduri
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Funding Sources and Amount Provided (by each agency or organization)	The University of North Carolina at Charlotte: \$59,999 The University of Connecticut: \$30,269
Total Project Cost	\$90,268
Agency ID or Contract Number	
Start and End Dates	10/01/2017 – 09/30/2019
Brief Description of Research Project	Autonomous vehicle (AV) technologies and solutions have been receiving increasing attention in both academia and industry. While the potential for transformation is undisputed, the specific impacts on travel behavior of individuals and households is less understood. In the proposed research, a new framework will be developed to simultaneously model the tour and stop making decisions while addressing three main limitations of existing tour-based activity-based modeling (TABM) frameworks, namely, representing time as a continuous entity, accommodating the temporal constraints within which an individual operates when generating tours and



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	<p>stops, and acknowledging the interrelationships across different tour- and stop-level decisions. This framework will be implemented into an existing TABM implementation to enhance the activity pattern generation. Further, the enhanced TABM will be applied and compared with existing TABM to demonstrate feasibility and applicability. Additionally, the TABM model system will be applied to model the direct and indirect travel behavior impacts, resulting from different configurations of AV futures, of San Francisco County residents.</p>
<p><i>Describe Implementation of Research Outcomes (or why not implemented)</i></p> <p><i>Place Any Photos Here</i></p>	
<p><i>Impacts/Benefits of Implementation (actual, not anticipated)</i></p>	<p>Project has not begun yet, so no impacts have been realized.</p>
<p><i>Web Links</i></p> <ul style="list-style-type: none"> • <i>Reports</i> • <i>Project website</i> 	<p>https://cammse.uncc.edu/sites/cammse.uncc.edu/files/media/CAMMSE-UNCC-2018-UTC-Project-Information-11-Konduri.pdf</p>