



UTC Project Information – Cooperative Mobility for Competitive Megaregions (CM²)

Project Title	Potential Impact Analysis of Driverless-Cars on Megaregion Traffic Flow Patterns
University	Texas Southern University
Principal Investigator	Bumseok Chun
PI Contact Information	E-mail: bum.chun@tsu.edu Phone: 713-313-7251
Funding Source(s) and Amounts Provided (by each agency or organization)	U.S. Department of Transportation: \$30,000 Texas Southern University Match: \$15,000
Total Project Cost	\$45,000
Agency ID or Contract Number	US DOT Grant Number 69A3551747135
Start and End Dates	01/01/2021 – 07/31/2022
Brief Description of Research Project	This study aims to further previous research, GIS-based Megaregion Transportation Planning Model, into the application of self-driving vehicles, developing planning strategy in by sustainable transport system as a series of travel demand modeling. The Year 1 through 3 proposals focused on developing database of freight mobility and identifying its travel patterns. The Year 4-5 proposal develops an analytical framework to load not only traditional passenger/freight flows but driverless cars to comprehensively predict the near future travel patterns in Texas mega cities, especially Dallas-Fort Worth and Houston. Its novel approach will help to develop a foundation for promoting sustainable aspect of emerging transportation as a benchmarking tool.
Describe Implementation of Research Outcomes (or why not implemented)	The key purpose of this research is to help develop decision making strategies for future transportation flow patterns. As the extension of Year 2 & 3 research, we will build on the framework that is already implemented in the previous year. The model framework will be based on a four-step travel demand modeling, including trip generation, distribution, mode split and assignment, that was already implemented for the previous research outputs.
Impacts/Benefits of Implementation (actual, not anticipated)	Project has not begun yet, so no impacts have been realized.
Web Links (to reports, project website, etc.)	