CM² Cooperative Mobility for Competitive Megaregions	**UTC Project Information – Cooperative Mobility for Competitive Megaregions (CM²)**
Project Title	Effect of freeway incidents and diversionary behavior on transportation network resiliency
University	Louisiana State University
Principal Investigator	Brian Wolshon
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Funding Source(s) and Amounts Provided (by each agency or organization)	U.S. Department of Transportation: $70,000 Louisiana State University (match):
Total Project Cost	$70,000
Agency ID or Contract Number	UTDOT Grant number: 69A3551747135
Start and End Dates	6/1/2020-8/31/2021
Brief Description of Research Project	An important role of transportation networks at scale of megaregion during an emergency evacuation is providing fast accessibility and safe mobility from the evacuation zone to safety. Disruptions on road networks throughout the evacuation potentially can put the safety of the people at risk. The resiliency of the network chiefly is functional recovery from performance reductions and costly delays which is a key element in at-risk situations. Although The initial level of functionality, type, and severity of an incident make an impact on the recovery time, in absence of external aid road users follow a diversionary behavior during the incident to alleviate the performance loss. There are different features affect this behavior such as the location of the incident, the capacity, number of alternatives routes, etc. In an effort to illustrate this diversionary behavior, this research will investigate the characteristics associated with road network resiliency under variation of incident features on megaregions. As a result, by considering the impact of diversionary behavior on the network we are able to evaluate the contrast in functional recovery in order to clarify the resiliency assessment specifically in the event of disasters.

Describe Implementation of Research Outcomes (or why not implemented)	Not implemented yet. Project has not begun
Impacts/Benefits of Implementation (actual, not anticipated)	The expected research products and contributions to practice from this project are anticipated to include a report of findings that will include a review of current network resiliency measures. The findings of this research can be the effect of incident features and diversionary behavior on the network resiliency and anticipating the functional restoration of the system on megaregion which can be considered by emergency managers and transportation planner for allocation of resources when planning for maintenance/rehab project prioritization and in general to better plan before and after disasters. It is anticipated that future research will expand on the finding of this research in a collaborative project with other faculty in universities in the CM2 consortium.
Web Links (to reports, project website, etc.)	