

MarTREC UTC Project Information Form
 USDOT Tier 1 University Transportation Center
 Agency ID or Contract Number 69A3551747130

Project Title: Visualizing Sea Level Rise Impacts in Transportation Planning
Project Abstract (Brief Description): Transportation planners regularly engage communities through public meetings to seek input and engagement on planning for the future, including impacts of sea level rise on streets and neighborhoods. Meetings typically include small-group discussions where planners present ideas verbally and with the use of maps and other two-dimensional (2D) media, such as photo renderings. New media options allow for three-dimensional (3D) imaging utilizing virtual and augmented reality. Such 3D visualizations are increasingly affordable and accessible to display on glasses that connect to smartphones, such as Samsung Gear VR. This project will test and compare new technologies on individuals in community-meeting settings in South Florida to test if 3D technology helps residents better understand the impacts of sea level rise on transportation infrastructure and communities. The Team will host multiple meetings of neighborhoods facing impacts over the next 5-20 years from sea level rise. Some of the meetings will use traditional methods, such as verbal presentations and 2D mapping and visualizations whereas other meetings will include 3D technologies to visualize the impacts of sea level rise on their streets. Attendees will be surveyed immediately after the meeting and 3 – 4 months after the meeting to determine if the 3D visualization technologies have had a significant impact on the meeting attendees to have a deeper understanding of the issues and become more engaged in community planning activities.
Describe Implementation of Research Outcomes: 1. To test if 3D visualization technologies in community transportation planning meetings result in a deeper understanding of the issue of sea level rise. 2. To test if meeting attendees exposed to 3D visualization are more likely to become engaged in community planning activities in the short-term after the meeting as compared to attendees not exposed to 3D virtual and/or augmented reality.
Impacts/Benefits of Implementation (actual, not anticipated) <i>To be determined upon conclusion of the project:</i>
Web Links: http://www.evaccenter.lsu.edu/ http://cues.fau.edu/ http://martrec.uark.edu/
Budget (Funding) Amounts & Source(s) (US DOT +Match(s) =Total Costs): \$66,516 + \$52,860 = \$119,376
Project Start and End Dates: January 1st, 2018 – November 30, 2019 project complete
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Principal Investigator Institution (University): Louisiana State University