

Research Project Descriptions

UTC Project Information	
Project Title	Combined effect of sea-level rise and coastal land subsidence – Identification of critical transportation infrastructure at-risk in coastal SPTC region
University	Louisiana Tech University
Principal Investigator	PI: Sanjay Tewari, Louisiana Tech University (LaTech)
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Funding Source(s) and Amounts Provided (by each agency or organization)	SPTC: \$25,400 Louisiana Tech University: \$21,433 Louisiana Transportation Research Center: \$4,000
Total Project Cost	\$50,833
Agency ID or Contract Number	DTRT13-G-UTC36 SPTC 17.1-10
Start and End Dates	10/15/17 - 5/30/18
Brief Description of Research Project	<p>PROBLEM: The resilience of transportation infrastructure located in coastal zone, against storm surges and climatic sea-level rise is critical. Some of the fastest rates of relative sea level rise in the United States are occurring in areas where the land is sinking, including parts of the Gulf Coast. Subsiding land in the Gulf area worsens the effects of relative sea level rise, increasing the risk of flooding in cities, inhabited islands, and tidal wetlands.</p> <p>PROPOSED SOLUTION: This project will investigate the trends for sea-level rise and land subsidence in coastal regions of Louisiana and Texas. Spatial maps will be created using ArcGIS for transportation infrastructure that is at risk because of combined risk of land subsidence and sea-level rise. This is extremely useful in being prepared for short-term as well as long-term natural hazards especially in context of Climate Adaptive Transportation and Freight Infrastructure. The results of this study will be helpful to state transportation agencies and infrastructure managers who are tasked with resiliency planning and management. It will also help transportation researchers in focusing their efforts in addressing potential problems of identified transportation infrastructure and working towards appropriate solutions.</p>
Describe Implementation of Research Outcomes (or why not implemented)	

Place Any Photos Here	
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links <ul style="list-style-type: none">• Reports• Project website	