



Project Requirements Form USDOT
CREATE UTC Contract Number 69A3552348330
Center Lead: Texas State University; Texas State University

US DOT Priorities: The proposed project aligns with Priority Area D (Infrastructure) of the US Department of Transportation (US DOT) Strategic Plan and the following Strategic Goals: 1) Improve Durability and Performance of Transportation Infrastructure: The project addresses the need for resilient coastal roads to ensure safe passage for the public and maximize coastal investments. 2) By using AI/ML-enhanced pavement condition data collection technologies, the project will improve the efficiency and accuracy of pavement evaluation, support maintenance decisions, and prolong pavement service life.

Outputs:

The proposed research aims to develop an AI/ML enhanced automated pavement condition data collection technology for monitoring coastal road pavements. Upon successful completion of the research, the technology will be ready for implementation by the highway agencies responsible for maintaining the coastal highways. The following technology transfer and implementation strategy outlines the steps to ensure successful implementation of the technology: 1) Demonstrate the effectiveness and benefits of the technology: The research will demonstrate the accuracy, efficiency, and cost-effectiveness of the developed technology for pavement condition evaluation in coastal areas. The research team will highlight the related benefits of the technology, including its ability to prolong pavement service life and reduce total repair costs. 2) Collaborate with highway agencies for technology implementation: The research team will collaborate with highway agencies and governments responsible for successful implementation of the technology. To ensure effective use of the technology, the research team will develop training programs and user manuals for the highway agency personnel who will be using the technology.

Outcomes/Impacts:

Promote Innovation. The project involves the development and application of new technologies in pavement evaluation, specifically tailored to the environmental characteristics of coastal areas. This aligns with the US DOT Strategic Goal to promote innovation in transportation to improve safety, mobility, and economic competitiveness.

Final Research Report: URL to final Report will be provided upon completion.

Notes: