

PROJECT OVERVIEW REPORT

1. UTC Identifying Number
69A3551847102
2. Center Identifying Number
CAIT-UTC-REG62
3. Project Title
AI-supported Monitoring and Resiliency Analysis for the Coastal Area of the Luis Muñoz Marín International Airport in Puerto Rico
4. Principal Investigator & Contact Information
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7. Project Description
The Luis Muñoz Marín International Airport and its coastal area in Puerto Rico, an overseas US territory that needs resources to recover from Hurricane Irma and Maria and to face future devastating coastal hazards in the economic crisis, has been facing the challenge of coastal flooding, erosion, and storm damage. Field observation is needed to support the potential vulnerability assessment and climate adaption plan. The primary goal of this proposal is to develop a surveillance camera-based coastal monitoring system for the San Juan International Airport and surrounding areas to support a resiliency study.
8. Implementation of Research Outcomes (or why not implemented)
The intended outcome of the project is to produce a resiliency report with recommendations of climate adaption for the Luis Muñoz Marín International Airport and the surrounding area. This report will help the administrators to understand the current situation and adapt to the climate change in order to improve the durability and extend the life of infrastructure. In a larger scale, the monitoring system will be useful to analyze the regional natural hazards to the

transportation system that link to the airport safety, accessibility, and sustainability.

9. Impacts/Benefits of Implementation (actual, not anticipated)
To Be Determined

10. Dates and Budget

Start date: 8/1/2021

End date: 7/31/2022

UTC (CAIT) Dollars: \$39,950

Cost Sharing: \$11,838

Total Dollars: \$51,788

11. Keywords

flood, aviation, transportation resilience, surveillance camera, climate change risks, airport resilience, sea-level rise, storm surge, shoreline changes

12. Web Links (Reports and Project Website)

<https://cait.rutgers.edu/research/ai-supported-monitoring-and-resiliency-analysis-for-the-coastal-area-of-the-luis-munoz-marin-international-airport-in-puerto-rico/>