GEORGIA SMART

Smart Cities and Inclusive Innovation

Community: Chatham County
Project Title: Smart Sea Level Tools for Emergency Planning and Response
Partners: City of Savannah

Chatham County by the Numbers:
100 miles of coastline
5% of Georgia population resides within coastal counties
60% of Major flooding events have occurred since 2015

"This project [will] provide real-time information to first responder and emergency planners, [and] improve community resilience to coastal flood events."
-Randall Mathews, Emergency Management Coordinator, Chatham County

Project Description:

Chatham County will design, develop, and test a pilot sensor network for measuring sea and inland waterway levels in order to inform government officials and other key stakeholders of flood risk during natural disasters and storms.

Implementation Focus Areas:

- Georgia Tech developed custom sea level sensor package
- 10 Sensors currently deployed with 30 more ready to install by spring 2019
- 50 Sensors planned by fall 2019
- 8 Gateways deployed to partnered communities
- Developed a web portal for viewing real time sensor data for research and public access: www.SealLevelSensors.org
- Modeling is producing a 3 day beta forecast for water height throughout the county to assist with emergency planning

Georgia Tech Research Collaboration:

Georgia Tech researchers from the colleges of Earth and Atmospheric Science, Computer Science, Electrical Engineering, and Civil & Environmental Engineering, as well as the Center for Education (CEISMC) are working with coastal Georgia government representatives to design, test, manufacture, and deploy a battery operated water level sensor package for measuring sea and inland water heights. The team is deploying these units throughout the county and is using data from these sensors to develop a hydrological model of the Georgia coast to be used in simulating how water level varies during various weather events.

A Model for Georgia:

This is the first project of its kind in the region, with a goal to provide a template for expansions of this technology and community stakeholder framework to other areas of vulnerable coastline in Georgia and along the southeastern United States.The internet connected gateways can be leveraged to connect any kind of wireless sensor technology in the future with broad usage possibilities for other Smart technology.

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