EDUCATION AND WORKFORCE DEVELOPMENT

## **Coastal Infrastructure Resilience Education**

**Project title**: Education for Improving Resilience of Coastal Infrastructure **Researchers**: Prof. Ismael Pagán-Trinidad, (PI), Carla López del Puerto (co-PI), Raúl Zapata (co-PI), University of Puerto Rico-Mayagüez (Co-PI)

This project focuses on developing formal and informal education opportunities for students, faculty, professionals and the general public. This is done through a series of formal courses, workshops, seminars, lectures and other outlets to advance local knowledge about resilience of coastal infrastructure in Puerto Rico. It includes a Certificate in Resiliency of Coastal Infrastructure, which teaches participants to assess impacts of natural hazards on coastal infrastructure, the conditions of existing structures and ways to mitigate future damage and potential risks. It will serve as a vehicle to engage the community as a whole to understand and learn its members' roles and responsibilities in providing resilient coastal infrastructure systems.

The UPRM Department of Civil Engineering focuses its formal education on natural hazards, accidents and infrastructure due to multi-hazard threats, caused by rainfall-runoff flooding (storm surge, waves, riverine, urban, landslides), earthquakes (tsunamis, liquefaction) and hurricane winds.





## **FAST FACTS**

- Nine UPRM students have participated in CRC's SUMREX program, sending students to work with other CRC research partners for a summer.
- In the first 4 years of the project, more than 2,000 certificates have been awarded to more than 1,340 participants.
- An average of about 40 students/year were registered in formal and special courses.

## < Fig. 1

UPRM has held multiple community seminars and conferences with PR Sea Grant and NOAA partners. They include "Re-Imagine Puerto Rico" post-Maria and "NOAA Coastal Inundation Mapping Workshop," drawing between 50-100 people from the community.