Collaborative Research on

Resilient **I**nfrastructure and **S**ustainability **E**ducation **U**ndergraduate **P**rogram **(RISE-UP)**

PI: Carla López del Puerto
Dept. of Civil Engineering & Surveying
UPRM

PI: Humberto Cavallín
School of Architecture
UPRRP

Co-PIs: Jonathan Muñoz, José Perdomo, O. Marcelo Suárez (UPRM)
Drianfel Vázquez (UPR-Ponce)

Senior Personnel: Fabio Andrade, Ismael Pagán, Luis Suárez, Luis Montejo, Aidcer Vidot, Luis Daza

Evaluators: Luisa Guillemard, Walter Díaz

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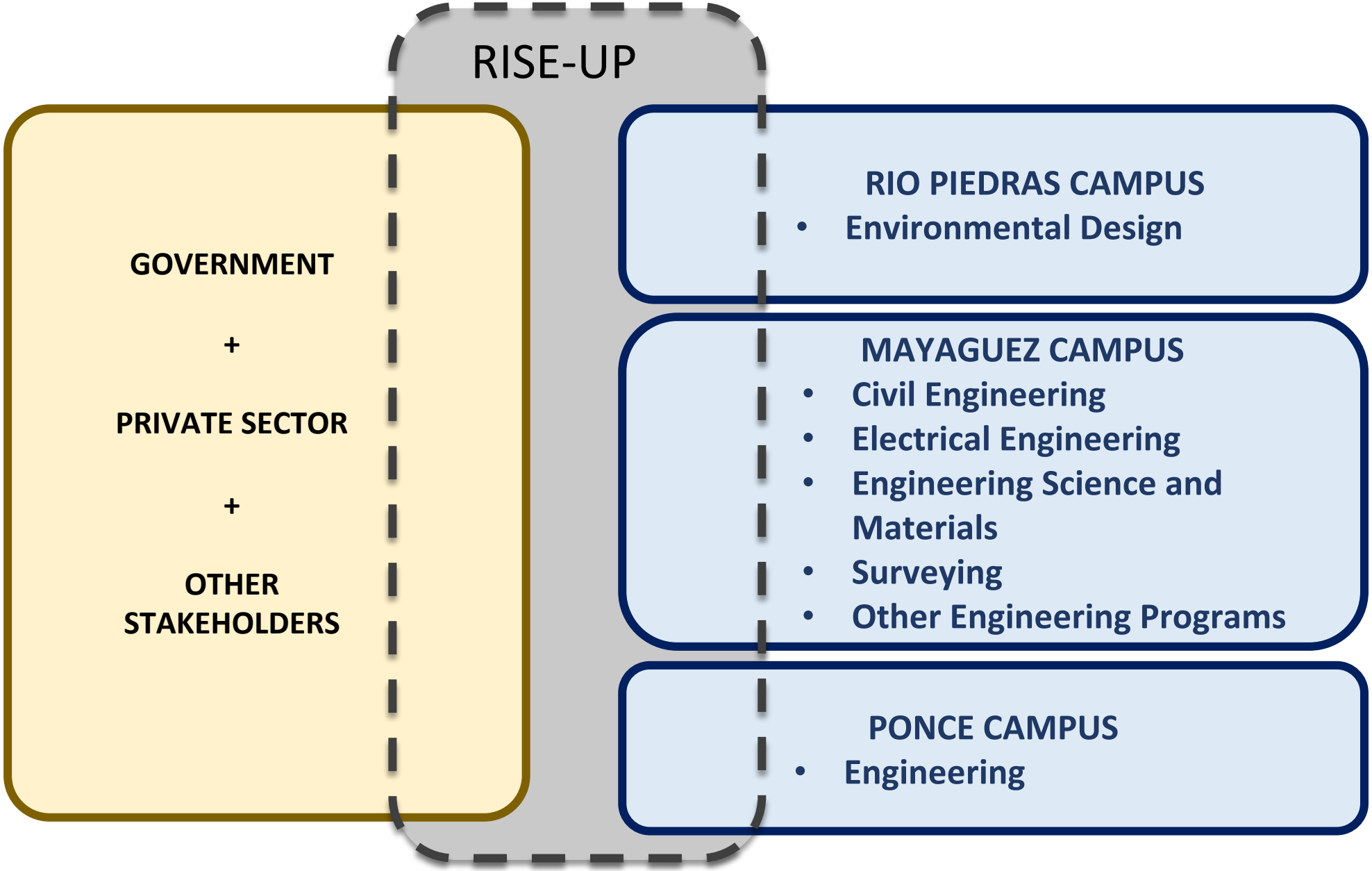
RISE UP

About the Program

- Purpose: Educate future engineering and environmental design professionals to design and build a more resilient and sustainable Puerto Rico.
- Interdisciplinary program in resilient infrastructure and sustainability
- Rapid response and resilience to counter natural disasters
- Novel curricular sequence: Minor degree in Integrated Practice in Architecture and Civil Engineering
- Undergraduate research and internships opportunities



High Impact Collaborative Structure

Courses

Level	RISE-UP Courses	Credits	
1	Fundamentals of Integrated Practice for Resilient and Sustainable Infrastructure *	3	Minor degree in Integrated Practice in Architecture and Civil Engineering
2	RISE-UP Seminar Series	3	
4	Resilient and Sustainable Design and Construction *	3	
5	Design- Build Project Delivery *	3	

- All courses meet Tuesdays or Thursdays 6 - 9 PM
- Courses may be counted as free electives
- Levels 4 and 5 are advanced undergraduate (5000 level) courses which may be used as part of a graduate program at UPR.

Course Descriptions :

- **Fundamentals of Resilient and Sustainable Infrastructure:** Implications of natural disasters on the design and construction processes, including the human factors, for solving problems of the design team.
- **RISE-UP Seminars:** Seminars allow students to build the necessary technical skills needed to develop design solutions in the advanced courses of the curricular sequence.
- **Sustainable and Resilient Design and Construction:** Study of sustainable development and the application of sustainability and resiliency to architecture/ engineering design and construction.
- **Design-Build Project Delivery:** Apply concepts learned throughout RISE-UP courses and in their experiential learning experience to provide solutions.

RISE-UP + Master´s Degree

Maestria en Ingeniería Civil - Área Ingeniería y Gerencia de Construcción

RISE-UP (2 semestres + 1 verano)

BIM/GIS	INCI 5996	3
Resilient and Sustainable Design & Construction	INCI 5010	3
Design-Build Project Delivery	INCI 5036	3

Complemento para Maestria en Gerencia (2 sem + 1 verano)

3	INCI 60XX	Curso del área de especialidad	Primer Semestre
3	INCI 60XX	Curso del área de especialidad	
3	XXXX 60XX	Curso fuera del area de especialidad	
3	INCI 60XX	Curso del área de especialidad	Segundo Semestre
3	INCI 60XX	Curso del área de especialidad o tesis	
3	XXXX 60XX	Curso fuera del area de especialidad	
3	INCI 60XX	Curso del área de especialidad, fuera del área de especialidad, internado, proyecto o tesis	Verano

30 Créditos

Plan 1: 24 créditos en cursos + 6 créditos en tesis
Plan 2: 27 créditos en cursos + 3 créditos en proyecto
Plan 3: 30 créditos en cursos*

Curso del área de especialidad
Curso fuera del area de especialidad

* Efectivo Diciembre 2019, ya no es requisito tomar un examen final luego de terminar los cursos.

Maestría en Ingeniería (Plan 3) * Aprobar un mínimo de 30 crs. de los cuales:
a) al menos 21 crs. en el área de especialidad (Ingeniería y Gerencia de la Construcción) ,
b) al menos 6 crs. fuera del área de especialidad,
c) no más de 9 crs. a nivel 5000,
d) puede transferir no mas de 6 crs. a nivel 6000 que no fueron contados para el bachillerato,
e) un estudiante con bachillerato de la UPR puede transferir a la maestría hasta 15 créditos .

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Eligibility Requirements

UPR – Mayagüez

- Be an active student of one of the participating programs: Civil Engineering, Surveying, or Electrical Engineering. In special cases, the evaluation committee will evaluate students from other engineering programs.
- Have a minimum overall grade point average of 2.75
- Have completed or currently taking INGE 3016 – Algorithms
- Have completed less than 50% of the required credits for Major degree and/or minimum 2 years of coursework remaining.
- Fill out the participant application form online.

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Eligibility Requirements

UPR – Rio Piedras

- Be an active student in Environmental Design. In special cases, the evaluation committee will evaluate students from other programs.
- Have a minimum overall average 2.75
- Have completed or currently taking ARQU 3134
- Have completed less than 50% of the required credits for Major degree
- Fill out the participant application form online.

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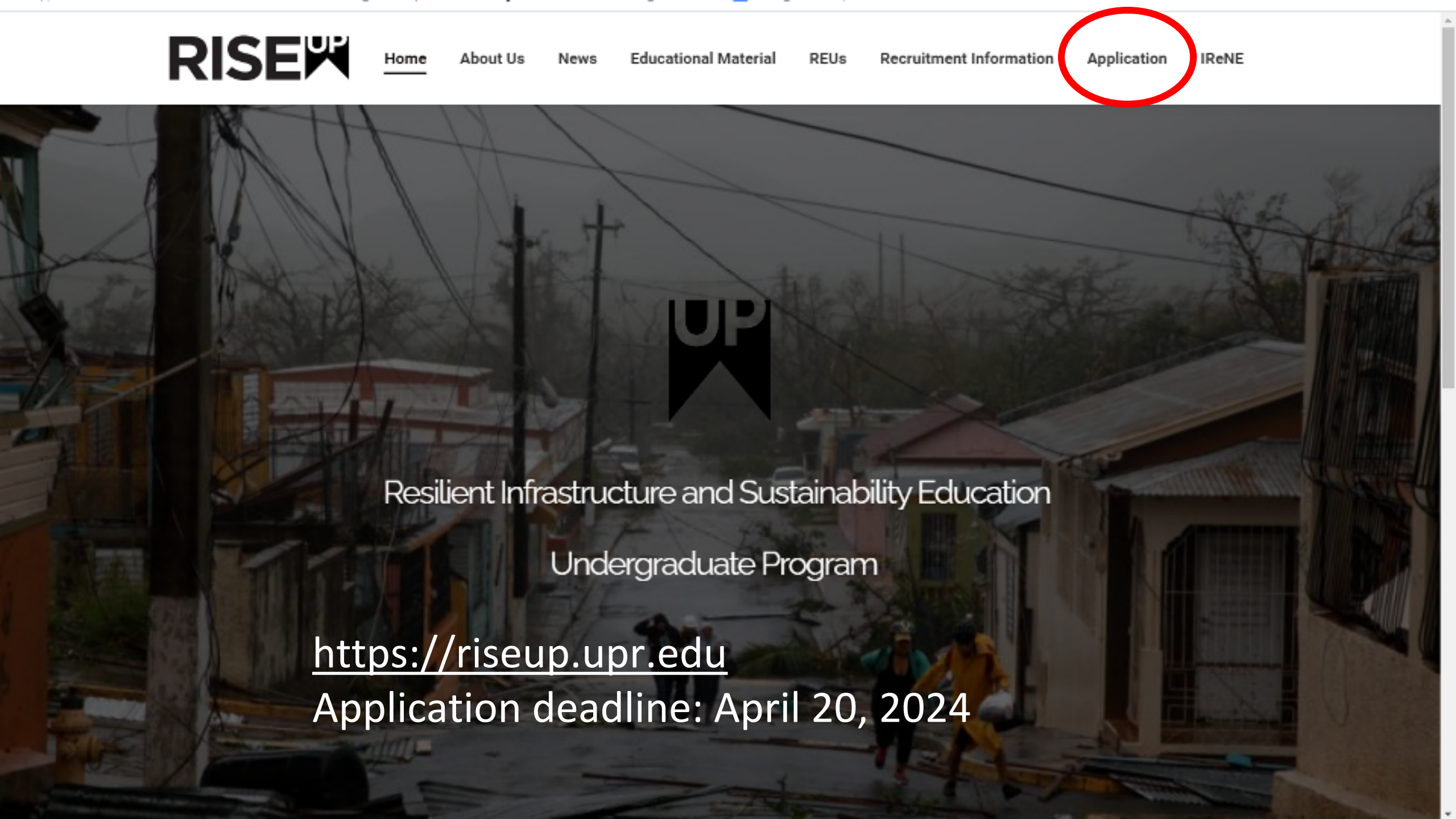
Evaluation Criteria

Academic performance (GPA)	70%
Letter of Interest	20%
Leadership	10%
Total	100%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UP
Resilient Infrastructure and Sustainability Education
Undergraduate Program
https://riseup.upr.edu
Application deadline: April 20, 2024

Questions?

Contact Persons

UPR-Mayagüez
Dr. Carla López del Puerto
Carla.Lopezdelpuerto@upr.edu

UPR-Rio Piedras
Dr. Humberto Cavallín
humberto.cavallin1@upr.edu

UPR-Ponce
Dr. Drianfel Vázquez
drianfel.vazquez@upr.edu

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Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.