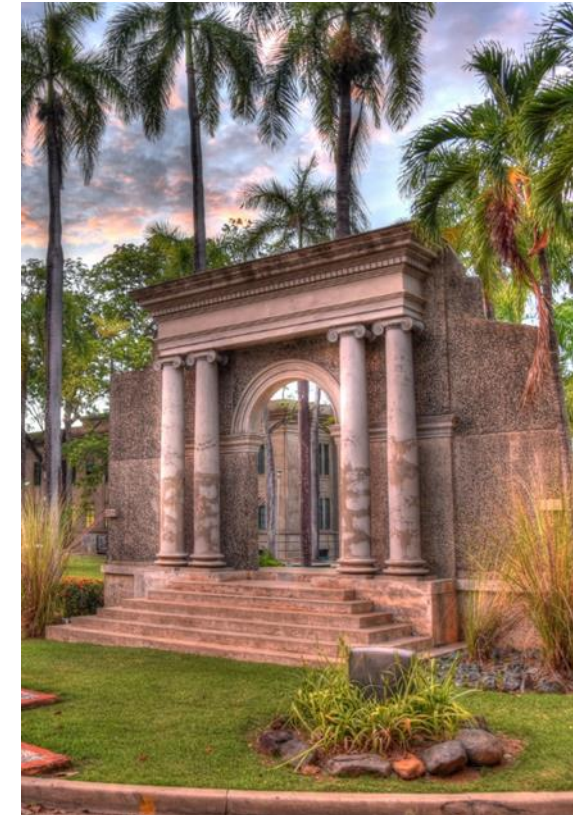
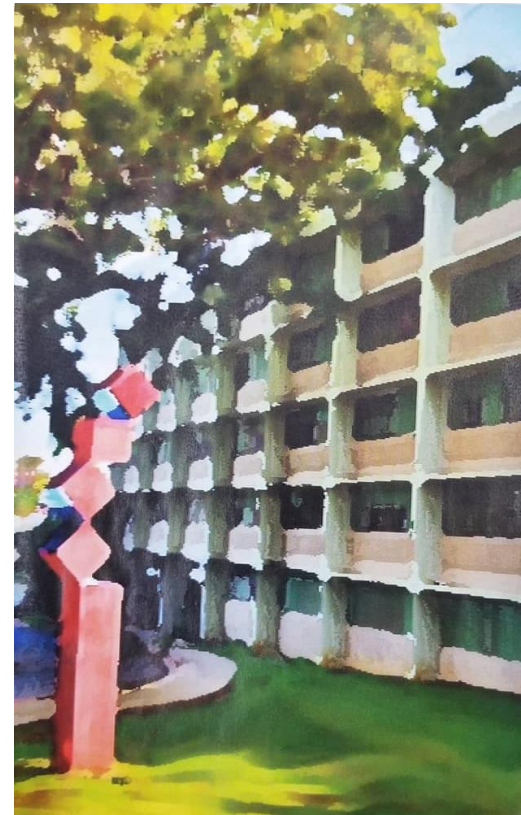


# OUTREACH INITIATIVES AND HOW TO COLABORATE WITH THEM.

Dr. Omell Pagán Parés



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# The Engineering Community Summit (ECoS)

- ECoS is all day event at the UPR Mayagüez Campus and consists of Science, Technology, Engineering and Mathematics (**STEM**) related seminars, workshops, and socials.
- Every year we invited the engineering community, that is, professors, students, alumni, industry professionals and all our friends to visit our campus and participate of this summit.
- <https://www.uprm.edu/engineering/ecos/>



Engineering  
Community  
Summit



# Engineering Summer Camps

- The Faculty of Engineering at UPRM offers opportunities for high school students to participate in activities and summer camps with the purpose of exposing them to the engineering profession.
- During the summer, high school students may have the experience of knowing about our Campus, the Engineering Faculty and the Engineering Programs.
- <https://www.uprm.edu/engineering/campamentos-de-verano/>

Engineering  
summer camps





## List of Summer Camps

- **Pre-Engineering Summer Camp:** Eleventh-grade students learn about engineering disciplines and receive critical information to discern the difference between them. Activities include vocational guidance, adaptation to university life, workshops, visits to production centers and social activities.
- **Mechanical Engineering Summer Camp:** Provides dynamic experiences related to Mechanical Engineering activities.
- **Pharmaceutical Engineering Summer Camp:** Workshops and activities in which students will learn basic concepts of Pharmaceutical Engineering. The student will have the opportunity to carry out scientific experiments in laboratories and to visit the facilities of a pharmaceutical industry.
- **Real Time PC Summer Camp:** Students will be exposed to university life at UPRM and the Industrial Engineering program with: visits to facilities and laboratories, presentations on program opportunities, lectures and laboratory activities and a project.







## List of Summer Camps

- **Trig-Surveying Camp:** Address to students who want to learn from the field of Surveying and Topography.
- **Summer Transportation Institute:** Students will participate in different activities where they will carry out projects, take workshops and make technical visits to transportation systems in the Metropolitan Area and West Area.
- **CREST Materials Summer Camp:** The objective of this camp is to provide research opportunities for high school students on issues related to Nanotechnology and more specifically, in the development of nanostructured materials that have biomedical, environmental and sustainability applications.
- **UPRM Hacks Summer Camp:** The objective of this camp is to explain the opportunities offered by computing and software engineering for the academic and professional growth of the participants. Students will develop App for Android phones and tablets using App Inventor from MIT.



## R2DEEP

- **Recruitment, Retention, and Distance Engineering Education Project:** It is an initiative of the Pre-Engineering Program that combines recruitment, training and retention strategies with the objective of improving the quantity and quality of students who request, enter and complete programs offered at the College of Engineering at UPRM.
- <https://www.uprm.edu/engineering/r2deep/>

R2DEEP



Recruitment, Retention, and  
Distance Engineering Education  
Project



# Recruitment Strategies

- R2DEEP promotes the participation of students in the different summer camps offered by the UPRM. We encourage the establishment and growth of engineering clubs in secondary schools. We maintain a sustainable plan to disseminate the career opportunities offered by an engineering career and the academic opportunities offered by the College of Engineering at UPRM to high school students.



# Educational Strategies

- We offer courses in mathematics, engineering graphics and programming for high school students, in the hybrid modality of distance education ("Online"), reinforcing their preparation to successfully pursue a career in university. The offered courses can be taken by the students directly from their schools of origin that have agreements with the UPRM to offer R2DEEP, or independently, obtaining credits validated for a bachelor degree at the UPRM or other universities.





# PEARLS



- The Program for Engineering Access, Retention, and **LIATS** Success (PEARLS) is a college-wide initiative sponsored by the National Science Foundation and enabled through the project “*Recruiting, Retaining, and Engaging Academically Talented Students from Economically Disadvantaged Groups into a Pathway to Successful Engineering Careers*“, directed at helping bachelor’s and master’s level students in all engineering disciplines to successfully complete their study programs and transition into professional life.
- Engineering PEARLS complements students’ education with individualized career mentoring, soft-skills training, research opportunities, internship/COOP experiences, and peer-mentor activities; integrated in a learning community where students, faculty, and university staff work together for a common goal: student success.



# PEARLS



## ➤ Project Objectives

- Increasing the retention and success of Low Income Academically Talented Students (LIATS) in engineering.
- Researching an intervention model based on social cognitive theory and attrition mitigation, in a framework provided by a structured scholarships program.
- For questions about this program contact Dr. Manuel Jimenez
- <https://www.uprm.edu/engineering/pearls/>



Email:  
[engineering\\_pearls@uprm.edu](mailto:engineering_pearls@uprm.edu)



# Open Capstone

- Open Capstone is an initiative in the College of Engineering (CoE) to foster the development of industry and community projects through engineering capstone and design courses. Open Capstone also creates awareness about engineering design projects through a yearly exhibition and forum where samples of student projects are showcased to the open community. The forum creates a synergistic environment among design professors, students, industry, and the community.
- <https://www.uprm.edu/engineering/academic-affairs-2/outreach-programs/open-capstone/>



# Constituent Participation Model

- Potential sponsors interested in having projects performed in Capstone and Design Courses need to:
  1. Establish a Capstone Agreement: A single master agreement for multiproject/multiyear collaboration
  2. Fill a project proposal form: A short form describing the project scope
- Project proposals received through this model are evaluated for fitness to course scope and goals. Upon approval, projects are performed by students under the supervision of faculty members.



**Making a Difference: Designing of a  
Sensory Stimulation Equipment  
for Adults with Disabilities**

**Team:** Nicole García  
Edgardo Collazo

**Faculty Mentors:** María Irizarry  
David Serrano  
Cristina Pomales  
Mayra Méndez

Date: December 2015

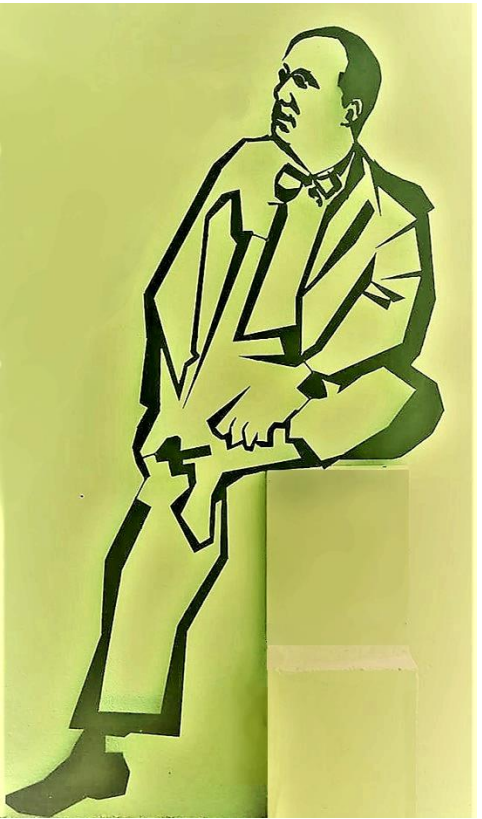




# How can your organization join these initiatives?

1. Your organization can sponsor current initiatives with financial funds and other resources
  - Sponsoring Special Student Projects
  - Sponsoring Scholarships
  - Sponsoring Outreach Initiatives
  - Mentoring Students
2. Your organization can propose and sponsor new initiatives.





Questions?

