

# ***An Innovative Approach to Recruit and Retain Historically Underrepresented Students in Engineering***

## **Project Personnel**

**Total Award Amount    \$112,500**

### Project Director

Name: Cordelia Ontiveros  
Title: Associate Dean  
Department: College of Engineering

### Co-Project Director

Name: Monica Palomo  
Title: Assistant Professor  
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### Co-Project Director

Name: Mariappan Jawaharlal  
Title: Professor  
Department: Mechanical Engineering

## **Project Description**

This project proposes collaboration between Cal Poly Pomona Women in Engineering Program (CPP WE), Society of Women Engineers (SWE), Society of Hispanics in Science and Engineering (SHSE), and Robotics Education through Active Learning (REAL), with a focus on recruiting and retaining underrepresented female students in engineering.

We will build on three of our successful programs: YES! (Youth Engineering Success) program sponsored by SWE that reaches hundreds of middle school and high school students each year, the Noche de Ciencias sponsored by SHSE to raise interest in engineering among Hispanic students, and the REAL program to inspire middle school students to pursue STEM degrees. All of these programs include hands on activities that show young students how interesting, creative, and exciting a career in engineering can be.

The project has the following components:

- 1- Outreach Activities combined with a Service Learning Course - Engineering students will enroll in a service learning course in support of various outreach activities. The course will include an evaluation of how the community service outreach activities impact the learning of CPP students. One outcome from the course will be a framework for the logistics of implementing outreach events, to provide a sustainable structure for future years.
- 2- Retention and community building within the College - We will host a welcome event in the fall, invite alumnae speakers who are positive role models, provide increased positive student interactions with faculty through informal lunch gatherings, and build a strong community of scholars.
- 3- Assessment of outreach and retention efforts - We will include comprehensive data collection on program outcomes that will help to support funding requests from other sources.

This project supports the university's mission of supporting underrepresented populations and will enhance the experience of both prospective and current students of color at CPP.