

Micaela Guerra Kapp

<http://www.users.soe.ucsc.edu/~mkapp>

mkapp@ucsc.edu

EDUCATION

Master of Science in Computer Engineering University of California, Santa Cruz	September 2017-December 2019
Bachelor of Science in Electrical and Electronic Engineering, Minor in Physics California State University, Sacramento	August 2007-December 2016
Study Abroad in Industrial Electronics and Automation Universidad de Valladolid, Valladolid, Spain	February 2014-June 2014

WORK & TEACHING EXPERIENCE

Research and Development Technician, Zircon Corporation · Conduct research for new technology consumer products.	July 2017 – Present
Special Consultant, Center for Science & Math Success (CSUS) · Developed and distributed Needs Assessment for the College of Natural Sciences and Mathematics peer programs. · Hosted a Wellness Workshop for peer leaders in collaboration with Counseling and Psychological Services and the Student Counseling Society	April 2017-June 2017
Supervisory Facilitator, Peer Assisted Learning Program (CSUS) · Trained and mentored over 50 facilitators to manage work duties, student relationships and problematic situations. · Improved pass rate by 15% for undergraduate Calculus course. · Helped secure funding for the program by presenting data to potential donors and at various conferences	August 2015-January 2017
Lecture & Lab Learning Assistant, Department of Physics (CSUS) · Facilitated discussion and problem-solving in calculus based Mechanics and Electricity & Magnetism courses. · Created homework problem solutions. · Graded laboratory reports, worksheets, and exam corrections. · Demonstrated circuit construction and oscilloscope functionalities during lab to aid in student understanding.	August 2013 – December 2016
Lead Facilitator, Peer Assisted Learning Program (CSUS) · Lead weekly discussions and trainings for Math 30 Facilitators. · Hosted weekly office hours and exam review sessions as needed. · Conducted an action-research project on a pedagogical topic: <i>Benefits of Facilitating Peer Assisted Learning Courses</i>	August 2014-August 2015
Facilitator, Peer Assisted Learning Program (CSUS) · Attended Pre-Calculus lectures and hosted 2 supplementary courses for undergraduate students. · Hosted weekly office hours and exam review sessions as needed.	August 2012-December 2013

- Conducted an action-research project on a pedagogical topic.

PROJECTS

Undergraduate, Senior Design Project

- Two quadcopters were designed, weighing under 3 pounds each, to carry a maximum payload of 6 pounds. One quadcopter is controlled via wireless remote and another is autonomous. The autonomous quadcopter matches the altitude of the remotely controlled via XBee radios and distance between the remotely controlled quadcopter using ultrasonic proximity sensors.

Undergraduate, IEEE Micromouse

- A small robotic vehicle self-navigates through an unknown maze and discover the shortest route to the center using a Flood Fill algorithm and maze mapping.

Undergraduate, Stereo Vision Ball Tracker

- Development of a stereo computer vision system to track a red ball, measure its depth relative to the cameras, and its' velocity using two web cameras, OpenCV and Python.

PUBLICATIONS

Development and Impact of a Training Program for Undergraduate Facilitators of Peer-Assisted Learning Kapp, M., Lundmark, L., Paradis, J, (2016) In Journal of College Science Teaching.

PROFESSIONAL ORGANIZATIONS

External Vice President, Society of Hispanic Professional Engineers

- Maintained and sought out new community and corporate partners for CSUS student chapter.
- Mentored 2 new board members

Director of Membership, Society of Hispanic Professional Engineers

- Developed method for tracking membership participation for over 150 members of a student organization.

Co-Volunteer Chair, Society of Hispanic Professional Engineers

- Organize over 50 volunteers for a 2-day regional conference

INVITED PARTICIPATION

Association of American Colleges & Universities , Workshop Lecturer	2017
Sacramento State Student Research Symposium , Research Presenter	2017
NSM Undergraduate Research Reception , Research Presenter	2016
AHSIE Best Practices Conference , Workshop Lecturer	2016
California Peer Leadership Conference , Workshop Facilitator	2016
Association of American Colleges & Universities , Workshop Facilitator	2015
CSU Symposium on University Teaching , Workshop Facilitator	2015
Intel's Ultimate Engineering Program , Participant	2012

SCHOLARSHIPS & AWARDS

Scholarship Recipient , NACME Scholar Program	2013-2016
Scholarship Recipient , Society of Women Engineers, Sacramento Valley	2013
Scholarship Recipient , Society of Hispanic Professional Engineers, Sacramento Professional	2013
1st Place Award , SMUD Careers in Energy Week Competition	2013