

CAL POLY

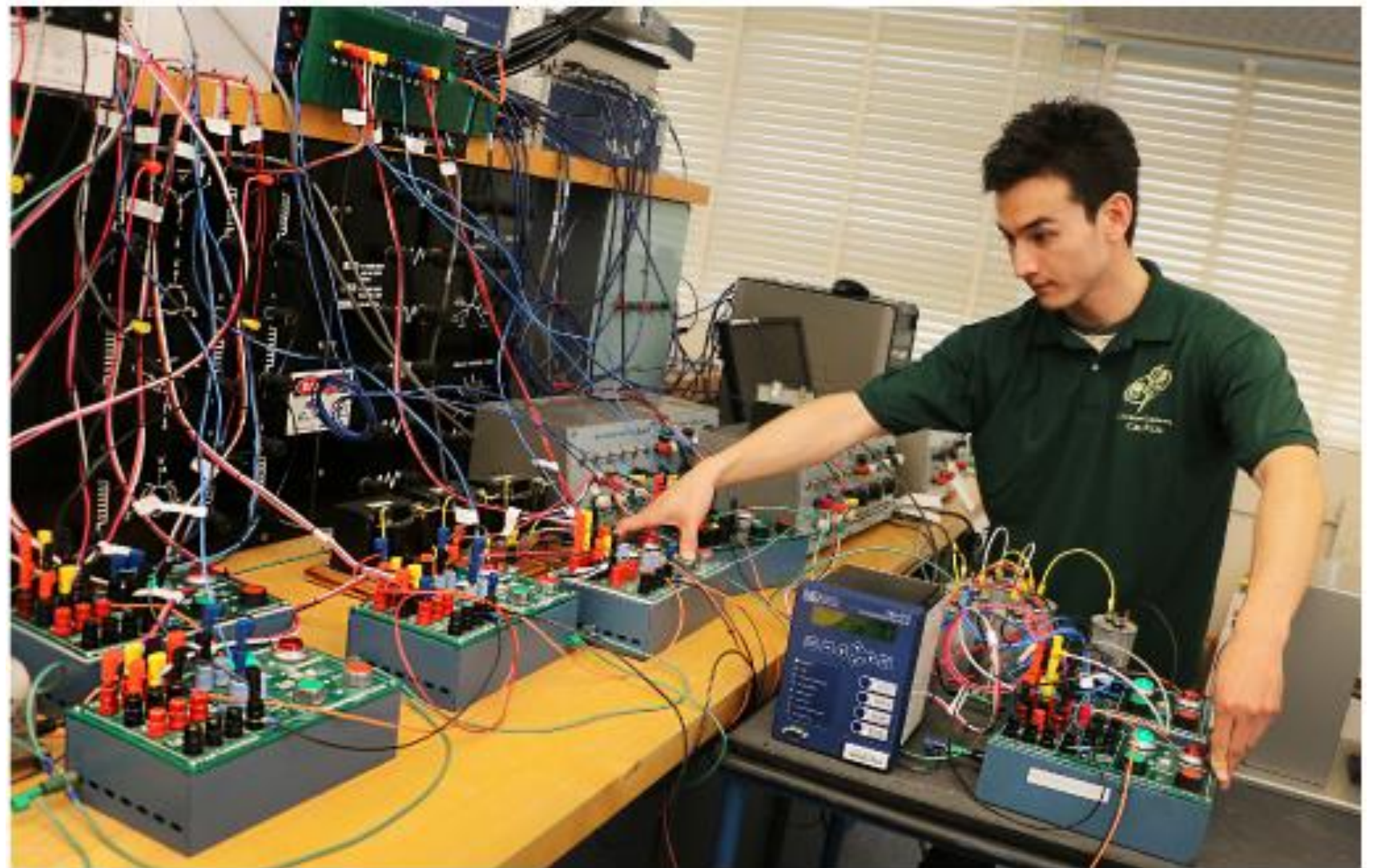
Electrical Engineering Program

Senior Project Sponsorship

- What can Senior Project Sponsorship do for your company?

- Partner with Cal Poly, Enable students and Learn by Doing

- Connect Your company with Prospective EE Graduates

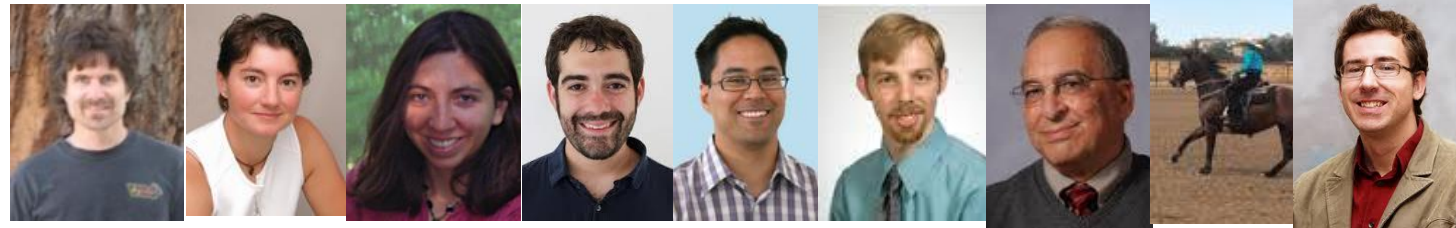


Aug 8, 2019

Senior Project Resources

- | 33 Full time plus adjunct Electrical and Computer Engineering staff
- | 35,000 ft² of dedicated lab and project space
- | Decades of Senior Project successes; +120 Senior Project students for 2019 -20 term, potential of +70 Senior Projects!

Full-Time EE Faculty Fall 2019



Bryan
Mealy

Lynne
Slivovsky

Bridget
Benson

Andrew
Danowitz

John
Oliver

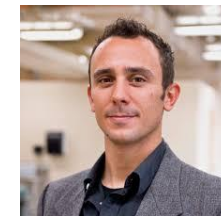
Paul
Hummel

Nazeih
Botros

Jeff
Gerfen

Joseph
Callenes
Sloan

Computers, MicroProcessors



Ben Hawkins



Tina
Smilkstein

David
Braun

Vladimir
Prodonav

Gary
Perks

Xiaomin
Jin

Dennis
Derickson

Dean
Arakaki

Sam
Agbo

Bill
Ahlgren

Mostafa
Chinichian

Sid
Vyas

Circuits, Electronics, Photonics, Biomed



Taufik

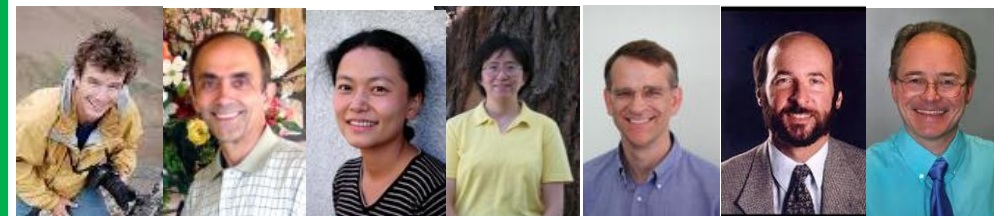
Ahmad
Nafisi

Ali
Shaban

Dale
Dolan

Majid
Poshtan

Power and Energy



Clay
McKell

John
Saghri

Jane
Zhang

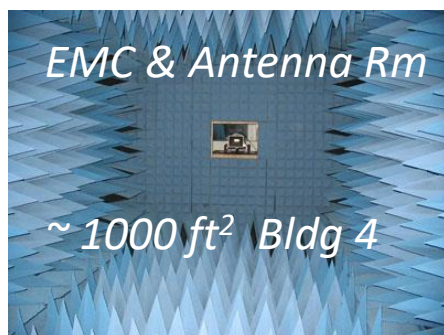
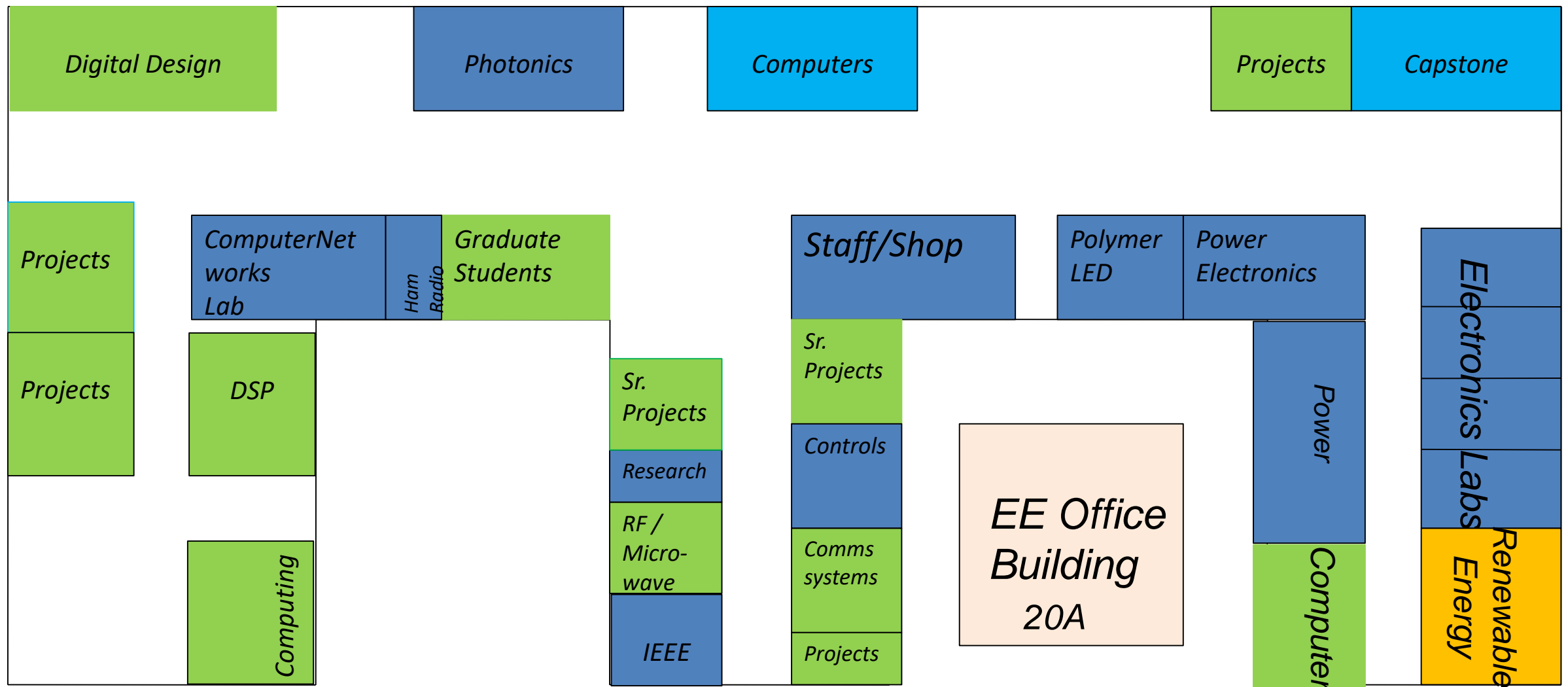
Helen
Yu

Wayne
Pilkington

Art
MacCarley

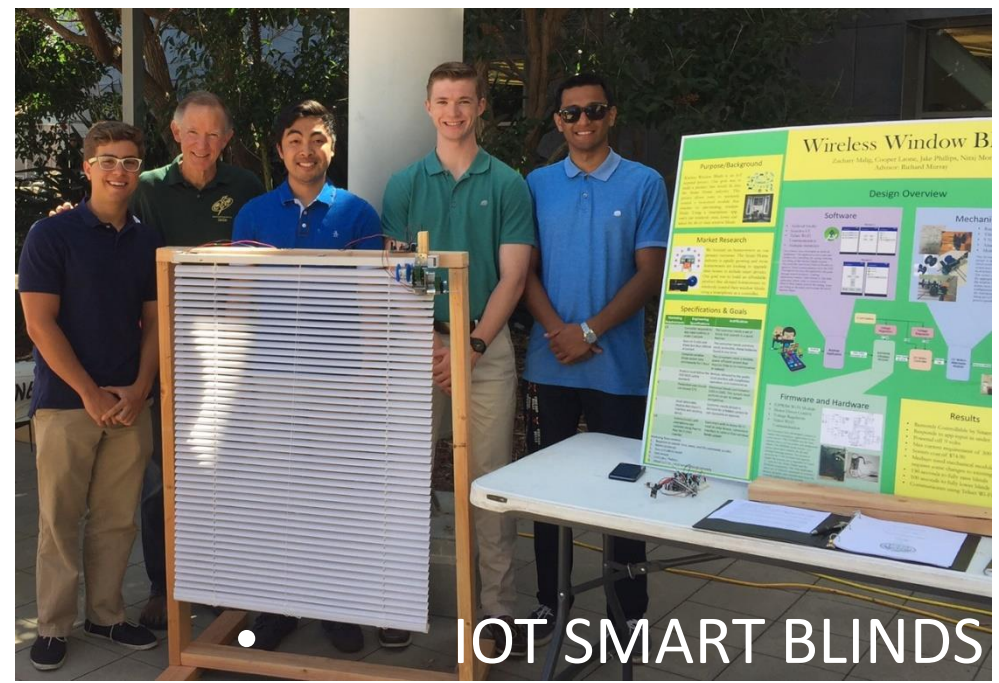
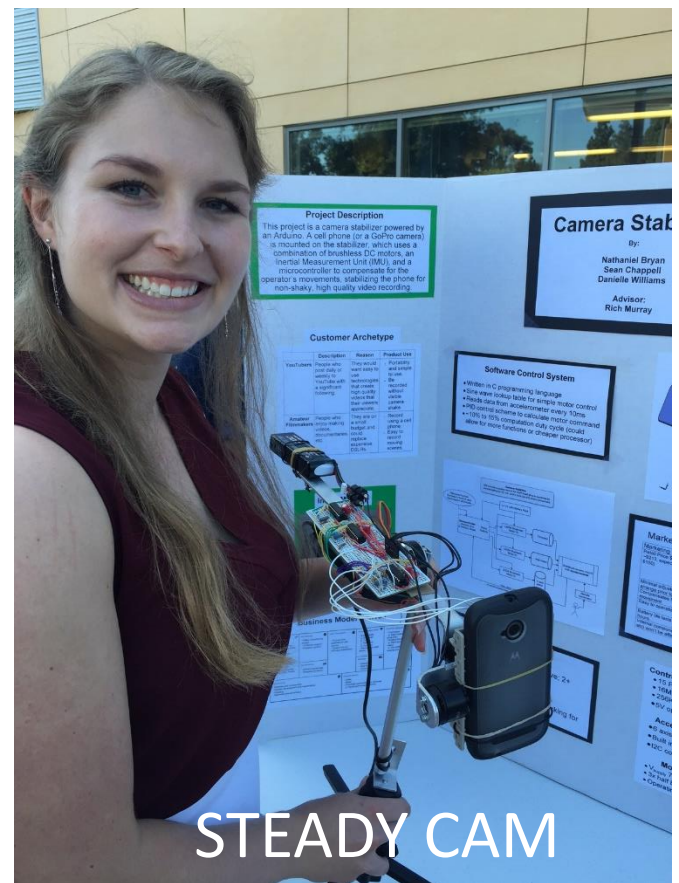
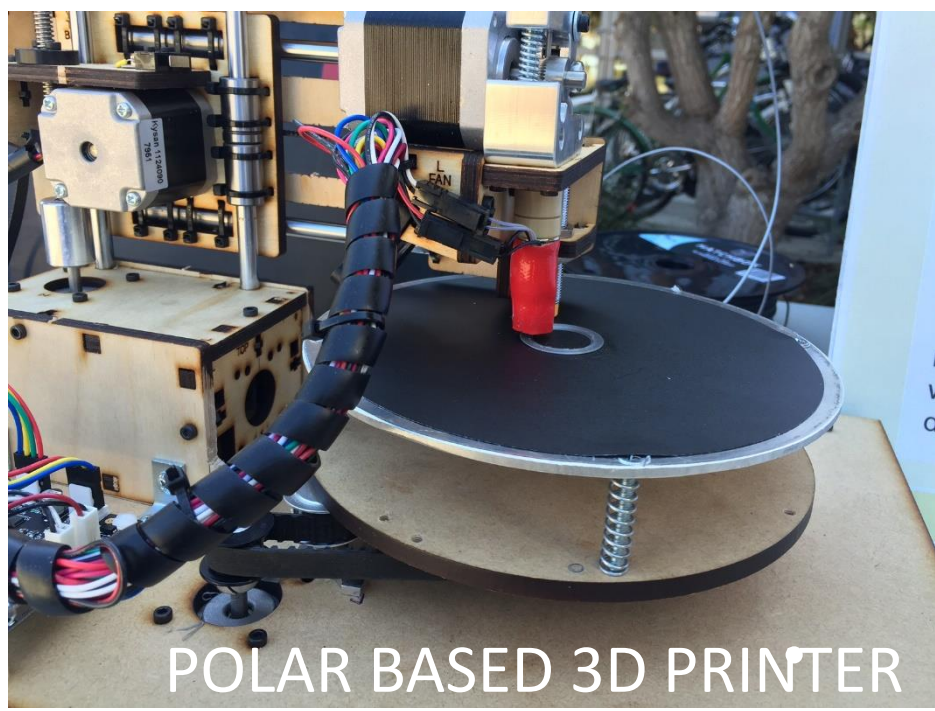
Fred
DePiero

Systems Engineering



35,000 ft² of Electrical & Computer Engineering lab space to work with!

Previous Senior Projects



Example Sponsored Senior Project

mCube, Inc. Sponsored :

- Jointly scoped project, Paid up front Fee
- Supplied all key micro 3axis accelerometer components
- Dedicated mCube technical advisors meeting weekly + design reviews for during of project

Student & faculty:

- 3 EE students, 3 CPE students
- Dedicated Faculty advisor (Murray)
- Senior Project and Capstone Labs

Results:

- 3 quarter duration (Fall 16-Spring 17) completed at Expo 17
- Multiple design, test, iteration cycles to Customer MVP
- Successful customer demo of “gestures to sign language”



Call to action!

We want +10 more of these industry sponsored projects for Fall Term 2019

Please contact us and submit your project proposal to Rich Murray @ rimurray@calpoly.edu or Braun @ dbraun@calpoly.edu by Sept 19, 2019

If **YOU** are not the decision maker, please forward me the appropriate contact in your company

5 Steps to Sponsoring a Project

- Identify a company champion and contact Murray, Braun, or Derickson
- Draft & deliver an Initial Project Proposal (see attached form)
- Iterate to an agreed project including type, timing, and funding
- Pay sponsorship Fee and execute ISSP paperwork (see attached steps)
- Initiate pre-project logistics

Reference Slides

- Project Sequencing Schedule
- Sponsoring Options
- Misc, including Graduate information

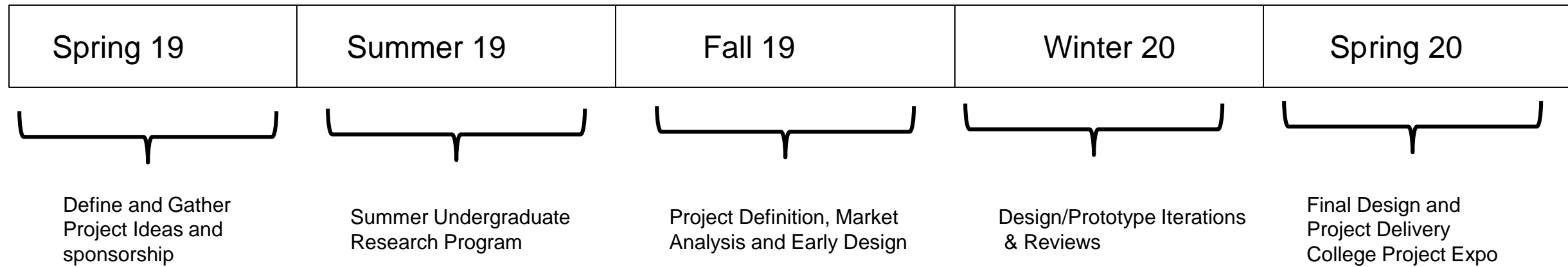
Primary Contact Information

Dennis Derickson
Electrical Engineering Dept. Chair
California Polytechnic
San Luis Obispo, CA 93407
805-756-7584 office
805-712-9168 mobile
ddericks@calpoly.edu

Rich Murray
EE and CPE Lecturer
Senior Project Coordinator
California Polytechnic
San Luis Obispo, CA 93407
805-550-8513 mobile
rimurray@calpoly.edu

David Braun
Professor
Senior Project Coordinator
California Polytechnic
San Luis Obispo, CA 93407
858-756-1464
dbraun@calpoly.edu

Projects Sequencing Schedule



EE Senior Project Sequence

EE460	EE461	EE462
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CPE Senior Project Sequence

CPE350	CPE450/CPE461	CPE462
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EE599 Masters Project – Can Start and End at Any Time

EE/CPE Project Sponsorship Options



Sponsor	Deliverable	Finances	Management	Term	Notes
1 - Faculty Defined and Sponsored	Best Effort No deliverables of potential commercial value	Department Project Fund or Faculty Research Account	Faculty member is strong mentor for students	3 Qtrs	Project expenses supported through Department Project Fund supported by donations by Alumni & Faculty.
2 - Non-Profit Organization, or other funding source	No deliverables of potential commercial value to sponsor	Sponsor covers project Expenses, no overhead fee.	Faculty mentor, plus Organization Liaison during meetings	3 Qtrs	Run as donation to Cal Poly. Limited expectations for involvement of sponsor. No NDA. No ability to revoke funds, no expectation of financial reporting
3 - Non-Profit Organization & Industry Sponsored	Reasonable Effort, deliverables may be of commercial value to sponsor.	Sponsor covers project Expenses plus \$5K fee to cover overhead and to add to Department Project Fund for all students	Faculty mentor, plus Organization Liaison, Moderate Industry interaction	3 Qtrs	Deposited into Sponsored Programs Dept. Fund Project account with 5% Admin Fee. No NDA. ISSP agreement signed without changes. See following page for details
4 - Industry and/or Non-Profit Organization,	Reasonable Effort, deliverables which may be of commercial benefit to sponsor.	Sponsor covers project Expenses via either Cost reimbursable or fixed price contract	Faculty mentor, plus Organization Liaison, Strong Industry interaction	3 Qtrs or longer	Custom Contract, project with sponsored programs. Cal Poly has 38% overhead rate. May be with/without NDA
5 - Summer Under Graduate Research Program	No deliverables to sponsor which might provide commercial benefit	\$5K per student (\$1K to advisor, \$2.5K to Student, \$1.5K for supplies)	Faculty member is strong mentor for student(s) over 8+ week Summer period	8 – 12 weeks	Run as donation Cal Poly. No sponsor involvement. No Contract, No NDA, No Deliverables

ISSP (Industry Supported Senior Project) process

Once a project and sponsor/client are identified (Project Proposal Submitted – see next slide) and accepted, the next steps involve working with your Cal Poly liaison (Derickson, Murray, or Braun) who will create a packet containing the following forms to be submitted to the Cal Poly Grants Development Office:

- **Class Project Sponsorship and Intellectual Property Agreement**
- **NDAIP-1 or NDAIO Form** - having to do with confidentiality with/without IP assignments
- **700 U Conflict of Interest Form(s)** – signed by member named in the NDAIP-1 / NDAIO
- **PAF Information Form** - dealing with potential human add/or animal subjects and any bio-hazards

Once these forms are completed, signed, submitted, and accepted, your liaison will work with you as sponsor/client to obtain confirmation payment to university, official commencement of sponsored project can then begin.

Note: Intellectual Property choices are flexible using forms chosen

Project Proposal FORM

Submit your Project proposal with this information:

1. Contact information:

Name _____

Title _____

Company _____

Email _____

Phone _____

☐

2. Which sponsorship you are interested in (option 1 – 5)

3. Project title _____

4. Short description of project (Abstract):

5. Initial project size estimate (number of students & major(s))

Please send (email preferred) materials to one of these contacts:

Dennis Derickson – ddericks@calpoly.edu

Rich Murray – rimurray@calpoly.edu

David Braun – dbraun@calpoly.edu

SUMMER UNDERGRADUATE RESEARCH PROGRAM

In 2017, \$285,000 equaled:

- 77 Students
- 32 Faculty
- 43 Projects



SUMMER UNDERGRADUATE RESEARCH PROGRAMS



The College of Engineering launched the Summer Undergraduate Research Program with the goal of providing research experience to undergraduate students as they work alongside faculty.

Undergraduate students participating in this program have opportunities to apply classroom knowledge and theories in a research setting, obtain exposure to training in research methods and practices, and work in a team environment as they gain technical skills specific to their research study.

Through collaboration with their faculty members, students gain valuable Learn by Doing research experiences that will support their growth as a student, and set a strong foundation to build on as they pursue their career goals.

The program provides a stipend to the faculty mentor, and the student mentee receives a research grant for an eight-week program. The research projects are faculty/student initiated.

INVITATION TO PARTICIPATE

Our industry partners have an opportunity to propose potential research projects for consideration by the faculty/student team, and provide the funding with a gift of \$5,000 per student to support the Summer Undergraduate Research Program.

CONTACT

Tanya Hauck
Assistant Dean, Advancement
College of Engineering
805-756-2163
thauck@calpoly.edu

We would be delighted having your organization sponsor students for Summer 2020.

If interested, we can assist writing The proposal and gather students. We are targeting 1st and 2nd year students As they do not have as many internship Opportunities compared to 3rd and 4th Year students.