

Engineering and systems management support for agriculture

# THE BRAE WEEKLY

The Weekly Newsletter for the BioResource & Agricultural Engineering Department



## WEEK 1 ~ April 2<sup>nd</sup>, 2019

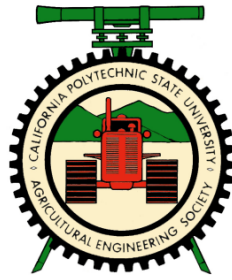
Welcome to Spring Quarter 2019! Here are key dates to note for the quarter:

- First Day of Spring Quarter: Tuesday, April 2nd
- Cal Poly Open House: April 12-14th
- Deadline for BRAE Department Scholarship Application: Tuesday, April 30th
- FFA State Finals: Saturday, May 5th
- AES/BRAE Banquet: Saturday, May 25th
- No Class (Memorial Day): Monday, May 27th
- Monday Schedule: Tuesday, May 28th
- Final Day of Spring Quarter: Friday, June 7th
- Final Examination Period: June 10-14th
- Commencement: June 15-16th

BRAE Outstanding  
Senior Application  
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**Agricultural Engineering Society**  
**Outstanding Senior Recognition**  
**(applicant must have senior standing)**

**Name:** \_\_\_\_\_ **Major:** \_\_\_\_\_

**List involvement in Departmental/AES Activities:**

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**Discuss how these activities have impacted you:**

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# March/April Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31	1 No School	2 First Day of Spring Quarter  CAFES Council 5:10PM 08-122  Grow Crew Meeting 11-12 Lab 4	3 Grow Crew Meeting 11-12 Lab 4  ASI Board of Directors Meeting 5:10PM UU220	4 AES Barbecue BRAE Ramp	5	6
7	8 PAAC 6-7PM 8A-4C	9 CAFES Council 5:10PM 08-122  Grow Crew Meeting 11-12 Lab 4	10 Grow Crew Meeting 11-12 Lab 4	11 AES Barbecue BRAE Ramp	12 Open House  Poly Royal Rodeo 5:30PM	13 Open House  Ag Pavilion Display 9AM- 2:30PM  Tractor Pull 1-3PM  Poly Royal Rodeo 5:30PM
14	15 PAAC 6-7PM 8A-4C	16 CAFES Council 5:10PM 08-122  Grow Crew Meeting 11-12 Lab 4	17 Grow Crew Meeting 11-12 Lab 4  ASI Board of Directors Meeting 5:10PM UU220	18 AES Barbecue BRAE Ramp	19	20
21	22 PAAC 6-7PM 8A-4C	23 CAFES Council 5:10PM 08-122  Grow Crew Meeting 11-12 Lab 4	24	25 AES Barbecue BRAE Ramp	26	27



Page two [continued BRAE Dept. Scholarship Application]

Name: \_\_\_\_\_

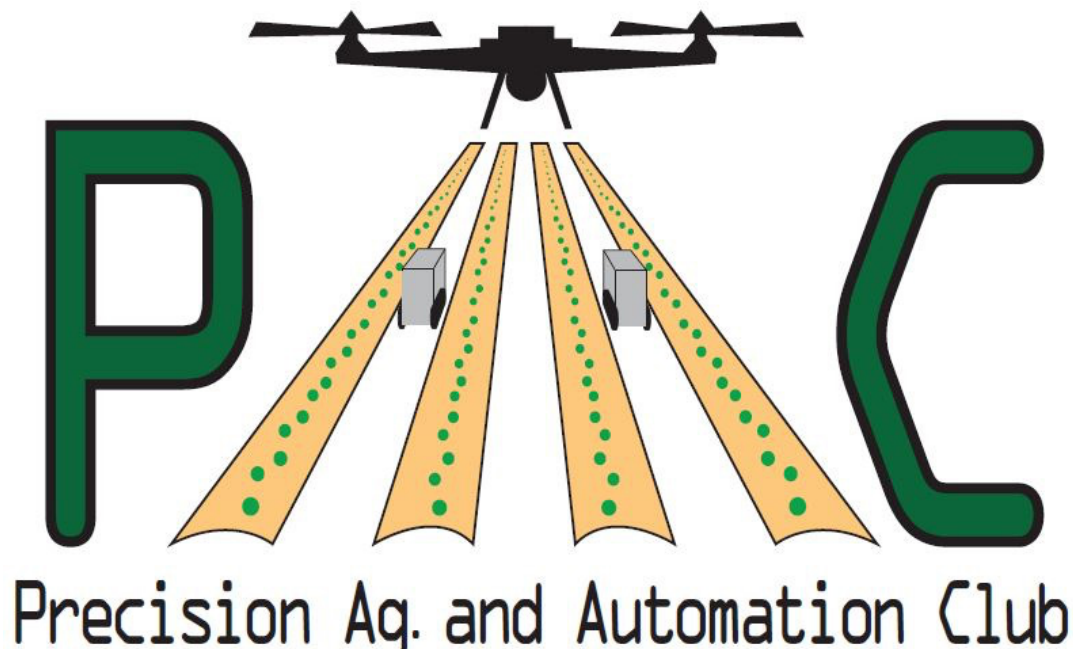
### **ACTIVITIES**

List Cal Poly co-curricular activities

List community out-of-school activities

**PREVIOUS SCHOLARSHIPS** – List current or previous scholarships and awards

**STATEMENT OF INTEREST IN MAJOR FIELD OF STUDY AND CAREER GOALS**



PAAC is BACK!

Pizza is provided!

Meetings are Mondays from 6-7 pm in Building 8A, Lab 4C. Call or text 760-468-6076 if you need help getting there :)

#### Meeting Information

Meetings will resume next Monday (April 8th) due to the quarter starting on a Tuesday, rather than on Monday. Enjoy the extra day of break! Meetings are from 6-7 PM in Building 8A, Lab 4C, and we always have free pizza.

Bring your friends -- we could always use more members!

#### ASABE Robotics Competition

Every year, PAAC builds tabletop robots that accomplish harvesting tasks. We recently received the tentative guidelines for this year's competition! Click below for the details.

# Society of Women Engineers

## Spring SWE Welcome

When: Thursday April 11th 9 am-Friday April 12th at 10 am

Where: Advanced Technologies Lab (ATL), all over the Engineering Plaza, and all over Cal Poly

We are seeking engineering students to participate in our Spring SWE Welcome event! How does it work? Admitted high school students shadow you during a regular school day to get a first-hand look at Cal Poly engineering! This is a unique opportunity for you to interact with prospective students, give advice, and show them what your student experience is like. The fun continues into the evening as the high school students have the option to stay the night in the residence halls. Interested? You can sign up to be a day host, night host, or both!

If you would like to be a host (night hosts must live on campus), please fill out this form. We also have “floater” spots open for those wanting to help out, but who are unable to host for an entire day (you would help with various tasks on the day of).

In addition, if you have any engineering friends who are not in SWE, feel free to pass on the volunteer form link to them too!

If you have any questions, email Bela Cortwright at [icortwri@calpoly.edu](mailto:icortwri@calpoly.edu), Tess Loarie at [Tloarie@calpoly.edu](mailto:Tloarie@calpoly.edu), or Vy Vu at [vfvu@calpoly.edu](mailto:vfvu@calpoly.edu)

# Engineers Without Borders

Hi EWB,

Welcome back from Spring Break! To kick off the new quarter, we will be having a Meet and Greet with the Officer Board at this week's general meeting so you can learn more about each position before our elections in week 3. To learn more, keep reading down below!

## Weekly Overview

Wednesday - IMPACT, Officer Board Meet and Greet

Friday- Tea Time

## Announcements

There will be no project meetings this week; they will start up again Monday, April 8th.

Come meet the Officer Board at this week's general meeting at 6:10 PM in 10-226! Our Officer Board elections are Week 3 so this is a great chance to learn about each position from the person who currently holds it. We will also have pizza!

Interested in graduate opportunities? Dr. Aaron Opdyke, a lecturer at the University of Sydney in Australia and an EWB Cal Poly alumnus, has Ph.D. and masters programs positions in humanitarian engineering, including:

Scaling Safe Construction in Humanitarian Shelter  
Neighbourhood Approaches in Humanitarian Programming

Scholarships and funding are available. For more information, see <http://humanitarianfrontierslab.org/> or contact [aaron.opdyke@sydney.edu.au](mailto:aaron.opdyke@sydney.edu.au).

## Meetings

Project Teams: are every Monday from 7:00-9:00 pm for all 5 project teams unless otherwise specified. Here are the team room locations:

Fiji: 186-C200

Local Projects: 186-C203

Thailand: 186-C303

Nicaragua: 186-C202

Malawi: 186-C300

Critical Global Engagement Club: We will not be meeting this week. Stay tuned for our first meeting in week 2!

Tea Time: will be from 11:00-12:00 pm on Friday behind Julien's Cafe in the library. Come hang out with the President and Vice President to have any questions answered about the club.

IMPACT: Meetings are held Wednesdays 3:10-4:00 pm in library fishbowl 216M



# Internship and Employment Opportunities

ASM and BRAE students and graduates are in high demand!

Check out [www.brae.calpoly.edu/students/employment](http://www.brae.calpoly.edu/students/employment) for even more postings!

Career Services can help you explore career options, prepare for your internship/job search, connect with employers, and more! Please visit their website for information on the services and resources they provide.

Designer Apprentice (Water)-Service DESIG01625

Full-Time Santa Maria, CA 93455, USA

This individual will design and develop irrigation systems within standard industry parameters that produce the best results for customers. Based upon their level of expertise, the Designer Apprentice may work under direct supervision. They will be responsible for partnering with multiple resources in project management activities that include the design and estimating to ensure such projects are constructed in accordance with the project plan.

Specific Duties Include:

Increasing RDO Water's visibility and customer participation in the agricultural irrigation segments; this will be accomplished by direct personal contact with growers, other end users and Account Managers.

All irrigation design functions including: preliminary project assessment, planning, design, hydraulic calculations, application rates, control systems, valves, pumping requirements, filtration requirements, water transportation pipelines, and reservoirs. Complete all design and engineering functions in a timely and efficient manner to meet customer's requirements, while adhering to the highest level of industry standards and integrity.

Develop accurate design material lists ensuring all material quantities and specifications are correct.

Support sales and service team members with project implementation whenever requested in a timely, thorough, and professional manner.

Assists customers and sales team in the field and office with irrigation design and application-related questions.

Work to improve water and soil conservation techniques.

Follow all safety rules and regulations while performing work assignments and adhere to all policies and procedures as specified in company manuals and as directed in the employee handbook.

Conduct self in the presence of customers and community so as to present a professional image of RDO Water.

Pro-actively seek and participate in available company-sponsored training, in an effort to develop and advance knowledge base and skill set.

Participate in all company/location driven communication efforts, including open book meetings, huddles, department meetings and other related efforts.

Maintain a positive and professional working relationship with peers, management, and support resources, with a constant commitment to teamwork and exemplary customer service.

Perform all other duties as assigned by management in a professional and efficient manner.

Requirements

Knowledge of Ag hydraulics, pumping, irrigation system design, water handling products for agriculture crops a plus

Proficient in AutoCAD

Excellent verbal and written communication skills

Strong analytical skills

Strong computer skills

Basic customer service skills

Bachelor's Degree in Agriculture, Engineering or related subject is preferred

Candidates must have valid work authorization and be able to work in the U.S. without company sponsorship



## Junior Grower/Plant Science Lab Tech at AgTech Startup

**PLEASE NOTE: Applications without a cover letter will be automatically rejected.**

OnePointOne is an indoor farming company solving pressing issues of global food production, distribution and consumption through automation, data science and brainpower. We plan to feed developed and developing nations, city by city, by taking an innovative and strategic stance against the problems facing our urbanizing world and growing populations. Working with OnePointOne offers a unique opportunity to develop an agricultural solution with societal, environmental and economic profits, bound to improve lives.

We are seeking a full-time Junior Grower/Plant Science Lab Technician to work with our Plant Science Lab director to implement scientific plant growth experiments.

The right candidate should have the following qualifications:

- **Knowledge base [essential]:**
  - Basic chemistry understanding
  - Basic wet laboratory experience: Use of pH, EC, DO sensors and meters, pipettors, Analytical weight balance, sterilization procedures
  - Experience with hydroponics or aeroponics a plus
- **Knowledge base [highly desired but not required]:**
  - 1+ year growing experience
  - Knowledge of plant anatomy and/or physiology
  - Experience with plant health monitoring
  - Experience working with spectrophotometer
  - Experience working with chemical extraction
- **General qualities**
  - Strong interest in plants and crop production
  - Strong work ethic
  - Ability to work independently
  - Excellent communication skills
  - Team player

Applications should be sent to [ak@onepointone.com](mailto:ak@onepointone.com). Please include a cover letter with your application indicating why you're interested in working with OnePointOne and highlighting relevant aspects of your background. Thank you for your interest!

Job Type: Full-time | Job Location: Santa Clara, CA 95126

**Quality, Integrity, Service**  
*"It's the way we do business"*

**Become Part of Preston's Success**

## **BECOME A PROJECT ENGINEER OR PROJECT ENGINEER INTERN**

A Project Engineer's function is to be a liaison for the project management team between the PPI field crew, client, engineer, and subcontractors. The Project Engineer must have good organizational skills to be able to balance the day to day operations of multiple fast paced construction projects. The ability to manage material procurement, estimate work, and solve problems are integral parts of the position among other essential PE functions.

## **WORK WHERE IT MATTERS - PPI**

For over 40 years, Preston Pipelines Inc. has been delivering excellence as a General Engineering Contractor in California. We complete close to 200 projects annually for Developers, Contractors and Municipalities in the Bay Area and Central Valley. Preston Pipelines is a successful, well-managed company that's growing both financially and geographically. Adding to PPI's success, two divisions have been established: Dirt Market LLC. and Preston Electric. New employees enter a dynamic and fulfilling work environment - one that has kept its small-business atmosphere, even as it continues to grow and expand. If you are bright, energetic, talented, and team-oriented, there's a position for YOU at Preston Pipelines.

## **BREAK INTO A NEW FIELD - MINIMUM QUALIFICATIONS**

- ▲ Bachelor's degree in BioResource & Agricultural Engineering, Civil Engineering, Construction Management, or a related field.
- ▲ Strong written and verbal communication skills with demonstrated ability to interact well with Clients, Engineers, Staff, Co-workers, Subcontractors, and Vendors. Personable, presentable and professional.

Preston Pipelines Inc. is a drug-free work environment. EEO employer.

**A reputation built on Service. Preston Pipelines is a proud supporter and employer of Cal Poly's BRAE program and its Alumni**

**Contact Preston's HR Team to Apply**

Phone: 408-262-1418 | Email: [raguirre@prestonpipelines.com](mailto:raguirre@prestonpipelines.com) | Web: <http://www.prestonpipelines.com/>

## EMPLOYMENT OPPORTUNITY

**CONDOR EARTH TECHNOLOGIES, INC.**



**CONDOR**  
An Employee Owned Company

### ASSOCIATE CIVIL ENGINEER

Condor Earth is a diversified, multidisciplinary organization providing a variety of Earth and Environmental Sciences, Engineering, Chemical Risk Management, GIS, and Construction Materials Testing and Special Inspection Services to private and public sector clients. At our core, we believe that innovation, and a commitment to quality and integrity are the keys to success.

Condor has an immediate opening in our Sonora, CA office, for a Associate Civil Engineer. Work includes feasibility studies, design, field engineering, and construction management services on a variety of projects. The work will include support of our engineering and environmental project managers on large projects and may perform as a project manager on small and medium sized, and special projects with the support and guidance, as needed, from senior staff.

Job duties include but are not limited to:

- ◆ Design of retaining walls and earth retention systems, tunnel engineering and plan preparation, excavation and grading plans, construction plans and specifications, geotechnical engineering, and storm water engineering.
- ◆ Assist senior project managers and professionals with civil engineering, geological engineering, geotechnical engineering, and environmental engineering projects.
- ◆ Work independently on smaller projects, special projects, and in teams with others on larger projects.

Well qualified candidates will have:

- ◆ Four years' work experience is required.
- ◆ Bachelor's degree in Civil Engineering, Geological Engineering or related major is required and a Master's degree is preferred, but not required.
- ◆ Proficiency in Microsoft Office including Word, Excel, PowerPoint and Outlook as well as Adobe.
- ◆ Advanced knowledge of AutoCAD up to and including Civil 3D and 2017.
- ◆ Intermediate to advanced knowledge of geotechnical and geological analysis software and succinct technical writing style.
- ◆ Current CA Professional Civil Engineer registration required or ability to obtain registration within one year of employment.

If you are interested in joining an outstanding team of professionals, please submit a cover letter with salary expectations and a resume to [cet.recruiting@condorearth.com](mailto:cet.recruiting@condorearth.com).

Condor Earth Technologies, Inc. is an Equal Opportunity Employer.

**CONDOR EARTH  
TECHNOLOGIES, INC.**

Attn: Human Resources  
21663 Brian Lane  
Sonora, CA 95370

Phone: 209-532-0361 x 2043  
Fax: 209-532-7231  
E-mail: [cet.recruiting@condorearth.com](mailto:cet.recruiting@condorearth.com)