It has been a busy week for the BRAE department! From projects and field trips to meetings and logging competitions, check out a few highlights on page 4!
Dan Herrera
Position: SMB President
Year: Junior
Major: Agricultural Systems Management
Hometown: San Luis Obispo, CA

Why did you choose Cal Poly?
The best hands on college with the Learn By Doing philosophy.

Why did you apply to the BioResource and Agricultural Engineering Department?
The BioResource and Agricultural Engineering Department is a very hands on and involved.

Why did you become involved with AES?
Seeing the older guys step up when I was a freshman and being involved.

What has been your favorite part of AES?
BBQ’ing.

What do you see yourself doing after graduation?
I see myself in San Luis Obispo County designing irrigation systems. Eventually I would also like to run cattle on the side.

What is your favorite thing that has happened in the department?
Dr. Livingston was AES Friend of the Month for three months in a row...

What is one thing other members (faculty and students) should know about you?
I really like wide open spaces.

Interested in seeing more about what AES and the BRAE department are involved in?
Follow both on Facebook!

www.facebook.com/CalPolyBRAE/ or @CalPolyBRAE
www.facebook.com/Ag.Engr.Society/ or @Ag.Engr.Society
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<td>Final Week of Classes!</td>
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Dr. Schwartz took the BRAE 128 class on a field trip visiting several companies! The companies included True Leaf (San Juan Bautista), Well Pict Berries (Watsonville), Heinzen Manufacturing (Gilroy), Wonderful Citrus (Delano), Tasteful Selections (Arvin, CA), and Frito Lay (Bakersfield).
All of the companies are interested in students for internships and job opportunities!

Photo Courtesy of Dr. Greg Schwartz

BRAE Department head, Dr. Livingston, serving food at the Second General AES Meeting last week. How many departments can say that their department head feeds them? Well, we can!

Photo Courtesy of AES President Helen Barnes

The Cal Poly Logging team hosted and competed the Cal Conclave Logging Competition! Cal Poly's A team (picture above) won the event and BRAE major Will Kraemer won Bull of the Woods for the top male competitor. Great job team!

Photo Courtesy of Dr. Samantha Gill
BRAE 428 – Agricultural Robotics and Automation

Winter 2018 (4 units)

Lecture - Tue./Thurs. 7:40 – 9:00 am, Lab - Tues. 12:10 – 3:00 pm

• Studying sensors and sensor data analysis techniques

• Applying On-Off control, PID control, and fuzzy logic control to agricultural control systems

• Developing real-world autonomous agricultural vehicles/robots

This course is an application of mechatronics principles for agricultural control systems and robots. This hands-on, project-oriented course covers sensors, electronics, mechanics, control theories and computer programming topics for agricultural robotic systems. This course is ideal for undergraduate and graduate students who want to gain mechatronics knowledge and enhance their critical thinking skills.

FOR MORE INFORMATION CONTACT: Bo Liu / BLIU17@Cal Poly.edu / BLDG 8-106 / 805-756-2384
AQUACULTURAL ENGINEERING
BRAE 470/471 - SELECTED ADVANCED TOPICS

Lecture: Mon. & Wed. 9:10-10:00 AM BRAE 470 2 Units
Lab: Tue. 3:10-6:00 PM BRAE 471 1 Unit

This course is an application of aquacultural engineering principles for freshwater and marine food production systems. Examination of system design constraints for maximizing productivity and minimizing environmental impacts, nutrient management, gas exchange and animal husbandry.

This course will cover learning outcomes including recognition of basic aquacultural engineering technologies, application of quantitative analytical processes for developing solutions, evaluation of aquaculture system designs within realistic constraints, analyzing research journals proposing different types of production systems, predicting biomass production applicabilities given input constraints, and explaining the interconnected systems nature of technology.

The course is ideal for undergraduate and graduate students interested in enhancing their critical thinking skills in advanced agricultural engineering topics.

BRAE 470 Aquacultural Engineering will be taught by Dr. Greg Schwartz, entailing two lectures and one laboratory (students must enroll in both BRAE 470 and BRAE 471) for 3 unit of upper division BRAE credit.

Photos Courtesy of: 1 Agricultural Marketing Center Aquaculture Division, 2 Cal Poly BRAE Department, 3 Canadian Broadcast Channel (CBC)
Meetings:
Monday- Sustainability Task Force, Project Team Meetings
Tuesday- IMPACT
Sustainability Task Force is a group seeking to enhance Cal Poly’s EWB Chapter through working on projects related to socio, economic, cross-generational and environmental sustainability. We want to ensure that our chapter is fulfilling its purpose of “equipping leaders to solve some of the world’s most pressing challenges”. The STF meets at 6pm every Monday in Building 10, room 225.

Project Meetings will be every Monday from 7:00-9:00pm!
Here are the team room locations:
Fiji: 10-225
Local Projects: 33-289
Thailand: 10-227
Nicaragua: 10-124
Malawi: 38-227

IMPACT meets every Tuesday 11:10-12:00pm in the library fishbowl 216R. IMPACT, Engineers Without Borders’ volunteering team, works with nonprofits across San Luis Obispo County to carry on the tradition of thinking globally and acting locally. IMPACT organizes volunteering events that unite EWB members and fellow Cal Poly students with local nonprofits dedicated to the community EWB Cal Poly knows and loves. In addition to future volunteering events, IMPACT is looking forward to building long term relationships in the community through a partner program between nonprofits and EWB project teams.

Announcements:

Letter Writing Campaign!
The letter-writing campaign is in full swing! Remember to bring your letters and addresses to monday night’s meeting! Remember... this week is your last chance to get double points for your project team!

Fundraising Committee!
Do you like helping out your team? Come join us at the club-wide fundraising committee! All majors and levels of experience are welcome, we’ll teach you everything you need to know! This is an awesome way to get more involved and potentially take on a leadership role. Interested? Fill out this snazzy form!
PAAC is Here!
Come for fun people, free pizza, and robots
We’ve got an exciting quarter and we hope you can be a part of it!
Meetings are Thursdays 6-8 pm in room 8A-3E

Motors and Servos cont.
8-3E (PC/Electronics Lab)
Taught by: PAAC Officers

Member of the Week
This could be you!
Do you have a friend in the club who did something cool but doesn’t want to brag? Do you have something neat to share? Let us know and we’ll put you in the newsletter!

Project of the Week
TBA

New in Ag Automation
How Marine Algae Could Help Feed the World
“Our planet faces a growing food crisis. According to the United Nations, more than 800 million people are regularly undernourished. By 2050, an additional 2 to 3 billion new guests will join the planetary dinner table. In a newly published study, we explain how marine microalgae could be a sustainable solution for solving global macro-hunger.”
Read the article here!
## Tutoring Opportunities

### Tutoring Opportunities

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<tr>
<th>Tutor</th>
<th>Classes</th>
<th>MON</th>
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<td>Collin Wong</td>
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<td>EE: 111, 112, 151, 212, 228, 241, 242, 255, 295 CPE: 101, 133, 202, 233, 315 MATH: 141, 142, 143, 241, 244 PHYS: 132, 133, 141, 211 ENGL: 149 BIO/BMED: 213 IME: 156</td>
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