

Engineering and systems management support for agriculture

THE BRAE WEEKLY

The Weekly Newsletter for the BioResource & Agricultural Engineering Department



WEEK 1 ~ April 5th, 2017



See more about
 Tractor Pull
 President, Joey
 Roberts,
 on Page 2!

The 39th Annual Tractor Pull is THIS Saturday April 8th, 2017!!

Join us on at 1 p.m. for The Poly Royal Truck and Tractor Pull
 on the Cal Poly campus, across from the crops unit.

1:00 PM start time
 Gates open at 12:00 PM

10 and under: \$5
 Adults: \$10

Located in the pasture across from the Cal Poly Crops Unit on Mt. Bishop Road

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Ag Engineering Society Featured Officer

For the second weekly AES featured officer, meet the 2016-2017 club Tractor Pull President, Joey Roberts from Camarillo, California. As Tractor Pull President, Joey competes in pulls across California and spearheads the organization of the Poly Royal Tractor Pull (*which is THIS Saturday!!!!*). After graduation, he hopes to work in the agricultural engineering industry.

Why did you decide to attend Cal Poly?

I choose to come to Cal Poly because of Open House Weekend, I visited the BRAE department during admitted student's day and realized that this was where I wanted to be.

Why the BRAE Department?

I applied to the BRAE Department because it sounded fun. I liked agriculture and was good at math in high school so it seemed like (and is) a perfect fit.

How did you get involved with AES?

I went to the welcome back BBQ during fall quarter of my freshman year, and made a few friends. Then I just kept coming back. It is a really great club to be involved in and there is always something going on.

What has been your favorite part of AES?

My favorite parts have been the learning opportunities experienced outside of class, the amount of trust that the faculty puts in you, and friendships you make with other members.

What would you show a student interested in attending Cal Poly?

The experiences that you are able to receive not only through this university, but the department are second to none. There is no other department on campus that feels as much like a family as this one. The students come from all different backgrounds and there is always something new to learn.



March & April Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2	3 Spring Quarter Begins	4	5	6 AES BBQ 11AM-12PM @ BRAE RAMP Spring SWE Welcome Sign Up 9:00AM	7 Open House Spring SWE Welcome Sign Up 9:00AM Zohns Brother Retirement Dinner	8 39th Annual Truck & Tractor Pull 1-4PM
9	10	11 Fremont BBQ Sponsored by Ag Council BRAE Ramp 5PM	12	13 AES BBQ 11AM-12PM @ BRAE RAMP PAAC Meeting 6:10-7:50 8-122	14 Spring SWE Welcome Sign Up 9:00AM	15
16	17	18	19	20 AES BBQ 11AM-12PM @ BRAE RAMP	21	22
23	24	25	26	27 AES BBQ 11AM-12PM @ BRAE RAMP	28	29
30	1	2	3	4 AES BBQ 11AM-12PM @ BRAE RAMP	5	6

The Agricultural Engineering Society

cordially invites you to our annual

AES BANQUET

to recognize the accomplishments of students,
faculty, and staff in the BRAE Department

May 19, 2017

{ Social Hour at 5 PM }
{ Dinner at 6 PM }

-at-

Courtyard by Marriott
1605 Calle Joaquin Road
San Luis Obispo, CA 93405
805-786-4200

Catered Dinner: Choice of New York Strip, Chicken Marsala, Vegetarian, or Vegan dish. All dinners are served with Roasted Red Potatoes, Asparagus, and Garlic Bread. Cash Bar available.

Please RSVP by May 5, 2017 at Bldg. 8-101

Student: \$30 Guest: \$35

Direct any questions towards Vicky Duran, AES Vice President eduran01@calpoly.edu

Job Opportunities

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Program Associate with the University of Arkansas Rice Research & Extension Center

Duties include some laboratory but mostly field activities in irrigation water management. Includes but not limited to repairing and installing irrigation equipment, planting crops, harvesting crops, spraying crops, retrieving information from data logging equipment, manual data collection, data summarization and statistical analysis for field experiments. The employee must be able to perform physical work such as lifting a minimum weight of 50 pounds and operate an ATV. The job also requires driving long distances and walking and working on cooperating producer farms. The individual will be assisting with the implementation of irrigation water management practices on cooperator farms. IWM practices include computerized hole selection, surge irrigation, soil moisture monitoring, and ET based scheduling. The individual will also be expected to be able to test irrigation pumps, use an ultrasonic meter, down hole well camera, liquid measurement devices and torque cells to measure pumping plant efficiency. The individual also will assist the water management engineer in development of materials for extension programs and research presentations.

Bachelor's in Mechanized Systems Management, Agriculture Technology Management, Agriculture, Environmental Science, Engineering, agronomy, soil science, crop science or related technical agricultural or environmental field, plus three years of related professional work experience, OR a Master's degree in Mechanized Systems Management, Agriculture Technology Management, Agriculture, Environmental Science, Engineering, agronomy, soil science, crop science or related technical agricultural or environmental field

Location: Rice Research & Extension Center, Stuttgart, AR

Required Documents:

1. Resume
2. Cover Letter/Letter of Application
3. Unofficial/Official Transcript(s)
4. List of three Professional References (name, title, email address and contact number)

Any Questions? Recruitment Contact Information:

Dr. Chris Henry
Assistant Professor
University of Arkansas
Rice Research & Extension Center
2900 Hwy 130 East
Stuttgart, AR 72160
cghenry@uark.edu



Cold Storage and Receiving Manager

Walnut processing and marketing company looking for an energetic, customer service oriented individual to oversee many critical functions for our peach receiving, cold storage operations and walnut receiving and inshell operations. Most functions run seasonally, however, some functions may run concurrently.

This individual will work with other members of the management team to establish goals and budgets, and to provide pertinent billing information to accounting. He or she will also be responsible to manage all full-time staff as well as seasonal staff when required. Ensures safety training including forklift operator training and compliance with all safety regulations for assigned staff and vendors. Also manages warehousing, receiving and forklift/facility maintenance operations; including managing staff and vendors.

Functions:

Regulatory Agency Compliance:

Will oversee the Risk Management Plan and Process Safety Management Program (PSM, RMP, CalARP) to ensure compliance with EPA, OSHA & local regulatory agencies. Will ensure all new hires and vendors are trained on ammonia safety and general safety procedures per CalOSHA regulations.

Maintaining Quality of Facilities & Product:

Will be responsible for managing storage quality for all cold and dry warehouse storage; including peaches, trees and inshell walnuts. Will be responsible for overseeing pest control vendor for cold storage and warehouses including ensuring compliance and completing documentation. Will also manage fumigation management and safety plan including acquiring a fumigation applicators license.

Receiving Activities:

Responsible for maintaining positive customer relationships with processors. Works in conjunction with CFO to establish appropriate rates for product handling. Oversees seasonal shipping, receiving, and forklift operator staff. Manages receiving, shipping and storage functions. Responsible for overseeing walnut receiving operations including: assisting in the development of all walnut receiving preoperational inspection procedures and ensuring their completion. Negotiates contracts with trucking companies to serve our incoming walnut hauling needs. Ensures trucking companies follow FSMA requirements and provide food safety team necessary documentation. Coordinates incoming deliveries and oversees grading of all received lots. Responsible for training incoming grading staff and ensuring accuracy and consistency of grades across all graders. Ensures growers, huller operators, trucking companies and nut buyer agents are provided all pertinent documentation and information accurately and promptly.

A research project on virtual reality simulations is being conducted by a graduate civil engineering student, in the Department of Civil and Environmental Engineering at Cal Poly, San Luis Obispo. The purpose of the study is to analyze the possibilities of using virtual reality in a school setting. A \$5.00 Starbucks gift card will be offered to each participant.

If you are interested, please go to this link: https://docs.google.com/forms/d/e/1FAIpQLSdrQo1W8XeZIkig_VUBh18LiHBfV9hcG-bYGZYT0XkWIzkQcQ/viewform

Should you pass the 5- 10 minute screening test, you will be contacted with more information.

If you have any questions, feel free to contact Kristina Mai at klmai@calpoly.edu and/or Dr. Anurag Pande at apande@calpoly.edu.



Night Operations Manager

Sacramento Valley Walnut Growers is a grower-owned walnut processing and marketing facility located in Yuba City, just north of Sacramento. Our heart healthy walnuts are shipped throughout the world for snacking, food service and ingredient use. We are a growing, dynamic company in search of innovative, self-starters to join our team.

SVWG is currently in search of a Night Operations Manager to execute operational activities and drive achievement of performance goals. As a Night Operations Manager, you will be responsible for all plant production operations during night shifts. This will include managing production staff; including hand sort lead, equipment operators, sanitation, maintenance, pasteurization and container loading personnel. This includes training all night shift employees, scheduling and completing time card reviews for payroll processing. You will also be responsible for ensuring all Food Safety, Employee Safety, GMPs, and HACCP requirements are adhered to.

The Night Operation Manager will work with the Plant Manager to establish key performance targets for each operational activity and will be responsible for their attainment. You will work with the Process Engineer to continually improve quality, to optimize equipment performance and to drive continual improvement efforts of equipment operators. You will be responsible for ensuring production schedules are met while meeting all quality standards for production output. You will also be involved in developing product inventory control procedures and is responsible for their execution during the shift.

This position will also include creating and managing sanitation schedules and procedures and will be responsible for ensuring their effectiveness and proper execution. This includes overseeing sanitation supply inventory and providing re-order requirements as needed.

Preferred Skills and Knowledge

- Food Science, Engineering, Business or equivalent bachelor's degree and food plant experience.
- Budgeting – creation of and adhering to
- Knowledge of GFSI (Global Food Safety Initiative) auditing schemes.
- Lean Six Sigma or equivalent training and experienced in process improvement.
- HACCP certified and proficient in conducting hazard analysis and risk assessments.
- Microsoft Office suite, especially Outlook, Word, and Excel.

Benefits

- Competitive Salary - \$55,000 - \$65,000 depending on skills and experience
- Medical, Dental, Vision Insurance
- 401(k) with employer match
- Employer paid life insurance and supplemental option available
- PTO accrual of 3 weeks annually
- Education Reimbursement Program
- 9 paid holidays
- Central location to Sacramento, Roseville, Chico, and the Sierras providing options for residential locations and leisure activities

Water/ Government Affairs Internship

The Wonderful Company LLC - Shafter, CA 93263
Internship

Wonderful Orchards is California's largest grower of pistachios, almonds and pomegranates. Headquartered near Bakersfield, CA the company farms 85,000 planted acres in the Central Valley. Over its many years in operation, Wonderful has demonstrated a strong entrepreneurial spirit of commitment to innovation and growth from its owners, management team and associates.

Position Summary:

Our internships offer hands-on experience with mentorship from experienced professionals!

Summer interns are selected to assist department managers in specific operations of the farming business, which are related directly to students' course of study. Interns receive excellent experience to supplement their classroom education. Student interns for the water/government affairs team will assist managers and directors in various aspects of water resources management and government affairs for Wonderful Orchards, including attendance at meetings and conferences, technical and financial analysis, research and writing, and preparation of presentations.

Preferred qualifications:

College upperclassmen (juniors & seniors); others levels may possibly be considered

Interested in an agriculture related career; Agriculture major not required

Computer proficient in Word, and Excel, and use of the Internet

Good verbal and written communication skills

Research and analysis skills

Ability to write and present reports as requested

Wonderful Orchards and The Wonderful Company is an Equal Opportunity Employer and with opportunities for advancement. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected categories.

With approximately 85,000 planted acres in California's San Joaquin Valley, Wonderful Orchards is the world's largest grower of almonds, pistachios and pomegranates. Our core focus is on farming, providing us with deep expertise in every aspect of growing these crops, including all cultural aspects, pest control, irrigation technologies and specialized equipment use, all tied together with sophisticated information systems.

Wonderful Orchards is part of The Wonderful Company, a successful, fast-growing privately held \$4.8 billion company with 7,800 employees worldwide. We've made Wonderful Pistachios one of America's top-selling salty snacks. We've turned pomegranates and POM Wonderful into a worldwide phenomenon. Wonderful Halos is the No. 1 mandarin orange in America. FIJI Water is the No. 1 premium bottled water in America. JUSTIN Wine produces California's top-selling, high-end Cabernet Sauvignon. And Teleflora is the world's largest flower delivery service.

The Wonderful Company has a long-standing commitment to corporate social responsibility, including more than \$120 million invested in environmental technologies and sustainability research, \$45 million in charitable giving and education initiatives every year, \$30 million toward the construction of a new charter school campus in California's Central Valley, and innovative health and wellness programs, including two new, free primary care clinics for employees and their dependents.

To learn more about The Wonderful Company, its products and core values, visit www.wonderful.com, or follow us on Facebook, Twitter and Instagram.

The Wonderful Company is an Equal Opportunity Employer and with opportunities for advancement. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status, or other protected categories.

<https://recruiting.adp.com/srccar/public/RTI.home?c=1057741&d=TheWonderfulCompany-External&r-b=INDEED&r=5000193918306#/>



Nicholas Construction Inc.
251 Carsen Way
Shafter CA 93263
Phone: (661) 391-8800 • Fax: (661) 391-8900
CA License# 843461

PROJECT ENGINEER

Nicholas Construction, Inc. (NCI) is a well established general engineering contractor based in Shafter, CA (near Bakersfield) primarily engaged in the bidding, management, and construction of transmission pipelines and pumping facilities in Kern, Tulare, Fresno, Los Angeles, Ventura, Santa Barbara, San Luis Obispo and San Bernardino Counties. We are a non-union affiliated, family owned engineering contractor that self performs earthwork, shoring, underground, mechanical, and structural concrete. We are seeking an individual that is willing to perform the following tasks.

JOB DESCRIPTION:

Assist Chief Estimator in performing material and quantity takeoffs.
Subcontractor and Supplier Bid Solicitations
Bid running
Scope review and bid day closeout
Attend pre-bid, pre-construction, and weekly construction progress meetings and report back to office
Produce and organize submittals, work plans, and schedules
Perform duties from a jobsite office when required
Valid Class C Driver License w/Clean DMV Printout
Be able to lift at least 100lbs.
At times, travel of up to 2 hours one way, depending on jobsite location/duration

MINIMUM REQUIREMENTS:

B.S. in Engineering, Ag Engineering, Ag Business or Construction Management
Excellent written and verbal skills
Expert skills with MS Excel, Word, and Project
CAD is a plus

COMPENSATION:

Competitive Salary
Benefit Package

If interested, please contact Alex Silicz at 661-619-7417 or email at Alex@NicholasConstructionInc.com



BLUE RIVER

TECHNOLOGY

Blue River Technology serves the agricultural industry with revolutionary computer-vision based robotics designed to unlock greater crop yield potential. We are building a future where farmers use our smart machines to individually understand and manage each plant in their fields. Our technology dramatically reduces the amount of chemicals used in agriculture, drives significant labor efficiencies, and captures valuable plant-by-plant data.

Field Applications Engineer - Cotton

Help develop, support, and maintain our next generation See & Spray machines and play a key role in enabling further product development.

Drone Data Tech - Fresno, CA

Temporary position - June - Sept 2017. We are looking for a technician to collect and process drone imagery from our heavy-lift multirotor drone to image crops. Will assist with analyzing the imagery collected by the drone, as well as assisting the pilot during flight to ensure the target area is covered and in maintaining line-of-sight with the aircraft.

Sr. Scientist - Computer Vision & Machine Learning

Implement deep-learning-based classification systems for identifying, characterizing, and classifying plants in real-time for our cutting edge See & Spray platform.

Chief Scientist

Lead our computer vision and machine learning team towards innovations in the "See" component of our "See & Spray" weed control platform. Develop real-time systems to classify types and characteristics of all plants in a field.

Operations Specialist

Help achieve the fullest potential of robotic thinning technology by operating and calibrating the equipment daily. Knowledge of technology and Yuma, AZ or Salinas, CA agriculture a must, as well as experience operating ag machinery.

Electrical Engineer

Lead the design and testing of the electrical system for Blue River's See & Spray machines. M.S. degree and 5-7 years experience in design of PCBAs preferred.

Drone Pilot - Lubbock, TX

We are looking for an experienced drone pilot to operate our heavy lift multirotor drone to image crops at research farms near Lubbock, TX. The project uses droned-based cameras and lasers to measure crop traits, such as height and leaf area, to advance corn and sorghum breeding. The flights will be at an agricultural research center in Lubbock, TX

GUI Software Engineer

Develop the graphical user interface that allows farmers and agronomists to unlock the value of data collected by our drone phenotyping system. Experience with C++ and writing GUI applications in Windows required.

Sales Specialist -Southeast US

Develop the market and technology adoption for our See & Spray machines, launch cotton weeding machines into the US market, and sell (and support) hundreds of units to US cotton farmers over the next several years

Software Engineer

Enhance existing real-time robotics systems, and define new applications for our revolutionary technology in lettuce and other crops. Bachelor's degree in Computer Science or related area, and 3+ years in software development and systems integration. Senior candidates also encouraged to apply.

The Benefits of Working at Blue River

We offer competitive compensation, plus all the usual benefits - health, 401K, company-paid life and disability insurance. We believe in a work life balance and offer generous Paid Time Off and Sick Leave. For our Sunnyvale office, we also offer other great perks such as Caltrain passes and mobile Wi-Fi to make commuting easier and more environmentally friendly. Subsidized lunches, flexible work hours, and a collaborative and supportive environment also contribute to making Blue River a great place to work. Part-time office space is also available in San Francisco.

Email: careers@bluerivert.com for more information