



**California/Nevada Section  
Bimonthly Update  
March 14, 2013  
Forty Third Edition**

- \* **Section Meeting a Hit!**
- \* **ASABE CA/NV Welcomes Vice Chair, Noelle Penner, EIT**
- \* **Thanks to the Southern California Edison staff of the Energy Education Center**
- \* **1- 2- 3- 4- 5 Member Highlight – Dr. Umakanta Jena, Division of Atmospheric Sciences, Desert Research Institute (DRI)**
- \* **Professional Engineering Licensing Reminder**

\* **Section Meeting a Hit!**

The 2013 Annual Meeting was a great event! We had posters from three schools and representation from six schools! Your Secretary/Treasurer reported support from twelve sponsoring companies who make student participation in our meeting possible. The Section continues to build content on our website at [www.asabecanv.org](http://www.asabecanv.org). We acknowledged members who have been with ASABE/ASAE since before some of our historic landmarks were even invented. We heard from Luis Cabrales about the new Agricultural Engineering program being built at CSU Bakersfield – check them out at <http://www.csub.edu/physics/>. We elected Noelle Penner as our new Vice Chair (bio below). ASABE President Tony Kajewski told us about the exciting things that our international organization is doing for us – check it out at [www.asabe.org](http://www.asabe.org) – as well as his goals and the interesting things he does with John Deere. International Preprofessionals Council Second Vice President Ryan McKellar with Cal Poly told us about the exciting things to look forward to at the Annual International Meeting in Kansas City, MO, this July. And, finally, Ken Giles with UC Davis told us about the collaborative work that he, Andy Holtz and Duane Needham of Holtz Needham Development, and Russell Stocker of Arena Pesticide Management have been doing in the field of aerial pesticide application to improve application efficiency and liquid atomization. Your officer team looks forward to seeing you there next year!

\* **ASABE CA/NV Welcomes Vice Chair, Noelle Penner, EIT**

Noelle graduated from the Cal Poly BioResources and Agricultural Engineering (BRAE) Department in 2011 after a very busy college career. At Cal Poly, Noelle participated in many clubs and activities, the highlights being those within the BRAE department, and earned her EIT certificate. Noelle was on the Cal Poly Quarter Scale Tractor Design Team all four years and took on the role of Captain in 2009 and 2010. Noelle was also Cal Poly ASABE Student Branch President in 2010. After graduation, she went to work at the GAF Materials Corporation Shafter Shingle Plant as a Project Engineer. At GAF, Noelle is always doing something different, but mainly enjoys the design and installation of mechanical upgrade/improvement projects. Noelle is planning to earn her PE license in 2014 and is excited to become more involved with ASABE as the new Vice Chair.

- \* **Thanks to the Southern California Edison staff of the Energy Education Center**

Thank you to those that attended the Annual Meeting. We had another great one this year. Have you noticed that every year the staff at the venue seems to top the previous year with their excellent customer service and attention to detail? Let's give them a shout out!

Big thanks to Janiece Anderson. She works with us on all of the arrangements and makes certain that everything is ready to go when we get there. Janiece recently retired and we are really going to miss her. Thanks to Joe Ruiz, the Caterer, who cooks up a mean meal for 100+ people. Thank to Drew Jefferson who literally does all of the heavy lifting at the facility. Lastly, thanks to the Manager, Marrs Gist, who generously donated a portion of the time he spent at our meeting to our organization this year. And thank you to our own Traeger Cotten who makes sure we get everything to the lovely folks mentioned above.

Southern California Edison's Energy Education Center is focused on energy related education. They always find a way fit us into their schedule. Please make a point of visiting their website at [www.sce.com/agtac](http://www.sce.com/agtac) to see what energy-related seminars you may find interesting! If you have any suggestions for the Annual Meeting, please send them to [traeger.cotten@sce.com](mailto:traeger.cotten@sce.com).

**\* 1- 2- 3- 4- 5 Member Highlight – Dr. Umakanta Jena, Division of Atmospheric Sciences, Desert Research Institute (DRI)**

Dr. Umakanta Jena joined the Division of Atmospheric Sciences at the Desert Research Institute (DRI) after being selected as a Nell J. Redfield Foundation Renewable Energy Fellow in September, 2012. Earlier, he received a doctoral degree in Biological and Agricultural Engineering from the College of Engineering at the University of Georgia in 2011. He has been conducting research in the thermochemical conversion of biomass including algae biofuels. At DRI, Dr. Jena is conducting research on hydrothermal conversion (reaction of biomass in hot-compressed water) of lignocellulosic/algal feedstocks into renewable solid/liquid fuels along with high-value aqueous co-products. The aqueous co-product contains sugars, organic acids and nutrients (depending on the feedstock type/source and the reaction conditions used) and can be recovered for production of high-value chemicals, and/ or recycled for algae growth. Dr. Jena is testing the fuel characteristics of solids/liquids obtained from hydrothermal conversion processes. He is also investing the pelletization of hydrothermally treated solids for different bioenergy applications.

One - piece of advice I'd give new graduates:

1 - engage in more and more writing and find opportunities to talk about your research and show the passion that you have for it.

Two - things I learned on the job that I didn't learn in college:

1 - writing successful grants, relating research to the real world problems/applications;  
2 - networking effectively and participating more and more.

Three - concepts I learned in college that I use regularly:

1 - research methods;  
2 - engineering fundamentals (in thermochemical processing/unit operations) and laboratory methods; and  
3 - analytical tools, scientific writing, and working in a team.

Four - favorite technical aspects of my job:

1 - developing thermochemical processes  
2 - improving thermochemical processes;

- 3 - using day-to-day experimental data; and
- 4 - getting results.

Five - places I've been or things I've seen in my career:

I was excited and amazed when I got an opportunity to see the advanced simulated/visualization videos of forest fires and Lake Tahoe weather forecasting systems at DRI last month.

**\* Professional Engineering Licensing Reminder**

For those engineering graduates that are approaching two years of qualifying experience working under a licensed Professional Engineer, keep an eye out at [http://www.bpelsg.ca.gov/applicants/exam\\_schedule.shtml](http://www.bpelsg.ca.gov/applicants/exam_schedule.shtml) because the application deadline for the Fall Agricultural Engineering exam is fast approaching. It also appears that many exam fees have increased significantly. According to [http://www.bpelsg.ca.gov/applicants/exam\\_fee\\_matrix.shtml](http://www.bpelsg.ca.gov/applicants/exam_fee_matrix.shtml), the cost to sit for the Agricultural, Chemical, Control Systems, Fire Protection, Industrial, Metallurgical, Nuclear, or Petroleum exam is \$390. The cost to sit for the Traffic exam is \$424.88. The cost to sit for the Civil exam has now become a whopping \$810.60! Ouch!!!

For those that are preparing to take the Agricultural Engineering exam, consider seeking financial support from ASABE by contacting Mark Crossley at [crossley@asabe.org](mailto:crossley@asabe.org).

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- For previous editions of the Update, please visit [www.asabecanv.org](http://www.asabecanv.org).
- If you have questions or comments, feel free to contact Carolyn at 707-678-1655x117 or [carolyn.jones@ca.usda.gov](mailto:carolyn.jones@ca.usda.gov).
- If you have ideas for Update items or would like to get involved in the leadership team, please let us know.