# **ECECONNECTION**

#### FALL 2014, ISSUE 15

#### Your Link to the Department of Civil Engineering



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## CHAIR'S MESSAGE



#### Dear Friends and Colleagues,

Fall brings the start of another exciting school year, and through *CE Connection* we're pleased to share the latest news of our students, faculty and staff.

This year, enrollment is at an all-time high for the University and the Department. Demand for civil engineering programs remains strong, and the BS program is among the largest in the College of Engineering and Computer Science. But hiring has not kept pace with student demand and the Department is at an all-time low for full-time, tenure-track faculty. The

good news is that the Department has received permission to hire full-time faculty members in the areas of Water Resources Engineering—which was not filled last year—and Structural Engineering. The Department will continue to seek faculty to help meet the demand of a growing student population. As part of an homage to our dedicated part-time instructors, we recognize a devoted part-time instructor of our Surveying class (CE 9), John German, in this month's Alumni Spotlight.

Along with our part-time instructors, our full-time faculty members continue to demonstrate leadership in the field of civil engineering. This edition of *CE Connection* highlights recent research in the structures area on homes and bridges by Dr. Ben Fell and Dr. Eric Matsumoto, respectively, and their research teams. Together, all of our faculty and instructors integrate practical, real-world experiences in the classroom.

Meanwhile, our students and professional student organizations are as active as ever. There is a new Sacramento State student chapter of Engineers for a Sustainable World (ESW). As mentioned in the last issue, the student chapter of the Institute of Transportation Engineers (ITE) is planning the second annual western regional Student Leadership Summit (SLS) this February, at which more than 100 students from across the region will spend three days participating in professional development workshops and activities.

This issue of *CE Connection* also contains a series of Alumni Notes from our former students who wrote in to share recent personal and professional accomplishments, such as passing the PE exam, getting married and starting a family, or just an update of life since graduation. Alumni Notes always help to remind us that we are all part of a larger academic and professional family, and I want to encourage

you to send in notes of your professional and personal accomplishments.

Thank you for your continued support, Kevan Shafizadeh, Ph.D., P.E. Civil Engineering Department Chair

#### On the cover...

Research students document specimen damage during a girder test.



## AN INDUSTRY

#### An Evening With Industry: 11<sup>th</sup> Annual Networking Event

The Department's premier networking opportunity that unites students, professionals and engineering firms will be held on Thursday, November 6, 2014 at the Alumni Center.

The 11<sup>th</sup> annual An Evening With Industry will feature keynote speaker Jerry Way, Director of Public Works for the City of Sacramento. Appointed Director in 2006, Mr. Way has been with Public Works since 1980 and has served as City Traffic Engineer and Streets Manager.

Mr. Way is an alumnus of Sacramento State, where he earned a business degree, and he completed "Senior Executive Leadership in State & Local Government" at Harvard University at the John F. Kennedy School of Government. He previously served as president of the American Public Works Association (APWA) Board of Directors and was named an APWA Charter Leadership Fellow.

In his keynote address, Mr. Way will provide an overview of some major local projects the City of Sacramento is spearheading, and will be followed by a panel discussion consisting of industry professionals, most of whom are Sacramento State CE alumni. Plenty of time will be provided at the event for networking.

An Evening With Industry features a variety of civil engineering firms looking to meet and recruit students for internships and full-time engineering positions. Representatives will be available to answer students' questions, and light appetizers will be served.





#### NOVEMBER 6 Alumni Center, 5:30pm-8:30pm

Aumin Center, 5.50pm–6.50pm

Featuring a panel discussion with practicing engineers and a social hour for students to interact with industry representatives.

> KEYNOTE SPEAKER Jerry Way Director of Public Works, City of Sacramento

Discussing: The Arena, Railyards, I Street Bridge, Broadway Bridge, Marina

RSVP in RVR 4024 or by contacting Neysa at nbush@csus.edu

#### Sponsor An Evening With Industry!

- Thursday, November 6<sup>th</sup> at 5:30 p.m.
- Sacramento State Alumni Center
- Event sponsorships are \$400

Space is limited!

Contact Neysa Bush at (916) 278-6982 or <u>nbush@csus.edu</u>

#### Students Show Competitive Streak at ITE District Meeting and Traffic Bowl

In an unusual move marking the first time in 67 years, the Western and Midwestern Districts of the Institute of Transportation Engineers (ITE) held their annual meeting jointly in Rapid City, South Dakota, where more than half of the U.S.' ITE membership was represented. Sacramento State's ITE student chapter was there to participate in the event, which ran from June 29-July 2, and compete against other western-region schools in the Student Traffic Bowl.



CE Department Chair Dr. Kevan Shafizadeh, PE, made the journey with a group of students who reaped many benefits from the experience. The event is for both practicing professionals and students, so events are designed with collaboration in mind.

"There were vendor exhibits to learn more about technology advancements within the transportation field, technical sessions to learn about various projects within the two districts, and also a great opportunity to network with numerous transportation enthusiasts," says Vian Somo, one of the undergraduate students representing the Sacramento State contingent. The joint meeting "made it even more diverse and exciting to meet professionals and students across half the United States," she added. Clad in matching polo shirts, the Sacramento State team was ready to compete in the Student Traffic Bowl – transportation engineering's answer to Jeopardy! A team of three (Danny Nguyen, Reaa Ali and Sean Linter-Ornelias) took part in the students only competition, wherein they chose categories from a board of questions complete with random "daily doubles."

"I felt a bit tense as a returning team member, since I was only good for one question last year," says Danny Nguyen. "This time around, I had ITE meetings, a blog on ITE's community site, both of my transportation engineering classes, and a transportationrelated senior project fresh in my mind. I contributed several answers along with my teammates, who pulled their fair share too. I felt content, even if Sac State was extremely close to being district champion at the end, as a handful of the answers presented dealt with material straight from Dr. Shafizadeh's course. One of the good doctor's pet peeves during these traffic bowls is when students blank out on a question that they should already know from his class."

The next day Vian participated in a second competition that pitted students against professionals. "It was exciting because the professionals knew so much more and it was fun to compete with them and see their competitive side," she says. In the end, Sacramento State finished in second place in the Student Traffic Bowl competition, behind Brigham Young University and ahead of Cal Poly, San Luis Obispo. The schools were recognized at the Awards Luncheon the following day.

Students were encouraged to take advantage of networking opportunities peppered throughout the meeting. "They had a fundraiser with raffle tickets so students were selling them to the professionals; it gave us an opportunity to talk to them that way," says undergraduate student Karen Kulesza. "There was a social reception with drink tickets and different ways you could get a drink ticket by talking to professionals or vendors."

The ITE District Meeting was an eye-opening experience that exposed Sacramento State student participants to a breadth of opportunities available to them as professional transportation engineers. "After the trip, I went back to my internship and started looking into some of the books we have to begin learning material for next year's competition," says Vian. "I am looking forward to participating in next year's District Meeting, especially since I will have taken the transportation engineering course. Attending the meeting helped me grow as a student and prepared me for my future as a professional engineer."



### Sacramento State Wins Second Place in Big Beam Contest



In its second year participating in the PCI Big Beam Contest, Sacramento State placed second in its zone, with Oregon State University taking the top spot and top honors in the nation. Sacramento State's participants were members of the Big Beam Club, a newly formed professional student organization.

The annual Big Beam contest, organized by the

Precast/Prestressed Concrete Institute (PCI) and sponsored by SIKA Corp., is divided into seven zones: different regions of the U.S. making up the first six zones and international schools comprising Zone 7. The top school from each zone competes in the national competition.

Sacramento State's team worked under the guidance of Dr. Eric Matsumoto, PE, and the leadership of graduate student Alban Gjongecaj. As second-place winners, the three members of the team (Blake Dolve, Laurence Sanati and Gaurav Bali) shared a \$750 prize (provided by SIKA Corp.). The team also was supported by industry PCI producer Clark Pacific of West Sacramento.

In a message to the team, Dr. Matsumoto wrote: "I know you all put in a tremendous amount of work in design/analysis, fabrication, testing, and reporting (under a tight timeline) with the excellent support from Clark Pacific, and learned a lot in the process both technically and professionally. The Sacramento State team has set a high standard for future PCI Big Beam teams for the second year in a row."

He continued, "I look forward to another excellent group of Sac State civil engineering students continuing in your footsteps next year."

#### At a Glance: Dean Lorenzo Smith, Ph.D.



Dean Smith joined the Sacramento State community as the new Dean of the College of Engineering and Computer Science in August. He comes to us from Oakland University in Michigan, where he served as Associate Dean of the School of Engineering and Computer Science.

- He holds a Ph.D. in Engineering Mechanics from Michigan State University ('99).
- Dean Smith says, "Most of my research revolves around trying to understand how to stretch and bend sheet metal without tearing it. My discoveries help make your new car purchases more affordable and your new car driving experience safer."
- Areas of scholarship include experimental analysis of sheet metal distortion in stamping processes; biomechanics; draw bead simulations; failure criteria in sheet metal; material property characterization.
- His teaching interests are Mechanics of Materials; Statics, Dynamics; Mechanics of Sheet Metal Forming; Materials Properties.

"I am so pleased to be a part of Sacramento State's College of Engineering and Computer Science," said Dean Smith. "Our faculty are recognized not only for their teaching excellence, but also for their applied research. I am also most impressed with our outstanding students who have a real sense of how to hit the ground running upon their graduation. I look forward to the opportunity to meet our alumni on campus or at one of our many events."

#### Mixer Welcomes New Graduate Students and New Dean

During the first week of the academic year, incoming Civil Engineering graduate students were treated to a casual mixer in the campus restaurant, Epicure, complete with appetizers, drinks and great company. Grad students mingled with faculty members and professionals who serve on the Department industrial advisory committees.

Once attendees were settled, Department Chair Dr. Kevan Shafizadeh, PE, encouraged everyone to introduce themselves, starting with faculty. Dr. Ghazan Khan, who is just starting his second year with the CE Department, said, "Thanks to Neysa Bush and everyone here, I feel like I am at home."



Dr. Saad Merayyan, who serves as Graduate Coordinator, then joked, "I still feel new after being here 10 years." Dr. Lorenzo Smith, the new Dean of the College of Engineering and Computer Science, was also welcomed at the event and encouraged students to visit him, share their stories and voice any concerns.

The graduate students hailed not just from Sacramento State, but UC Davis, CSU Chico and several other schools. There were two international students present as well – one from Venezuela and one from India. The latter student, Deepthi Gade, had only been in the U.S. for a month (her first time here) and planned to pursue geotechnical engineering.



"I'm looking for a good internship program," she said. "I hope to complete my degree in two years then find a job. I'm very happy to be here!"

Juan Carlos Arrieta was just entering his second semester majoring in water resources engineering, having received his undergraduate degree in December 2013. "I've had a great experience here – very hands-on," he said. "We get away from the theoretical side and into the lab. You learn about every discipline in your undergrad and get a feel for where you want to go."

Ken Wright, also in his second semester of the graduate program, echoed those sentiments. "It's a very down-to-earth, practical education that prepared me well for the working world," said Ken. While working full time at the Army Corps of Engineers Hydrologic Engineering Center, Ken hopes to complete his graduate degree in five semesters, then pursue a Ph.D.

In closing the event, Dean Smith told the graduate students that when he taught, he liked when students asked questions. "Don't hold back," he said. "Bring into the classroom your industry experience. It will enrich everyone's experience."

Said Dr. Shafizadeh: "Our program has a rich tradition and strong community ties. Events like 'An Evening with Industry' and the Ken Kerri Luncheon are designed to get students and industry connected, so please take advantage of this opportunity."



#### Earthquake Research Project Making Timely Discoveries

The recent 6.0 magnitude earthquake that jolted Napa and other parts of Northern California was another reminder of the need for more resilient structures, particularly in areas prone to seismic activity as our state is. Dr. Benjamin Fell, PE, and two other university professors are nearing completion on a three-year research project—backed by the National Science Foundation (NSF)—that aims to achieve this resiliency for residential buildings.

"The goal of the project is to prevent earthquake damage to residential structures," says Dr. Fell. "Currently the minimum level of design for a house is life safety, meaning it should prevent casualties, but doesn't protect against damage. Earthquake damage can be quite detrimental because it occurs at one instance in a concentrated area."

Citing the \$20 billion in damage caused by the Northridge earthquake in 1994, Dr. Fell says that houses affected by quakes often require significant repairs or complete rebuilding and thus, earthquake insurance premiums are high. "We want to create a more resilient house in two ways," he says. "A low-cost isolation system where the house slides on dish and flat isolators; and second, to make a strong, stiff house using off-the-shelf building products. We've had success with adhesives, gluing drywall to the 2x4 framing members."

Dr. Fell and his team are working on the last of three years of testing using the NSF structures lab at UC San Diego; the first round of testing took place at Sacramento State and the second at UC Berkeley.

"The Sac State and Berkeley tests were component tests," says Dr. Fell. "We didn't test the entire structure, just the individual components. At Sacramento State, we tested 20 shear walls and got a very good understanding of how walls behave with and without adhesives, along with varying boundary conditions. At UC Berkeley, we tested rooms of a house, like a living room."



Now at the UCSD lab, Dr. Fell's research team is testing a simulated residential structure on a shake table. "The first test is an isolated test; the house will slide back and forth," he says. "Then we'll come in with plates and tie the structure down to the shake table. These tests are only 30 seconds long because a quake lasts 30 to 60 seconds. All in all, we'll do two to three days of testing at the shake table. So it's a high-stakes, high-risk test. We only get one shot."

As might be expected, many are keenly interested in the results of this research, including insurance and building materials companies, which have been present at some of the test sites. The team received donations of some needed materials, such as adhesives and hardware. The ultimate goal, says Dr. Fell, is to incorporate this new seismically resistant design methodology into building codes.

And one key consideration toward that end is ensuring that costs stay low – a rough estimate by Dr. Fell puts materials costs under \$2,000 to add this functionality to an average new-build house. "We try to keep cost to a minimum so the idea is not DOA (dead on arrival). If you pitch a system that costs \$30,000, no one's going to do it."

The other challenge is getting the word out about their research. So far, there has been some local news coverage in San Diego, and Dr. Fell is working on increasing visibility. The timeliness of the Napa quake, he said, "definitely doesn't hurt" in terms of increasing awareness of earthquake-resistant homes.

### ALUMNI SPOTLIGHT

#### John German: The Best of Both Worlds



John German, PE, has enjoyed a fulfilling career managing his own engineering business, plus he's a registered PE in five states. He has consulted with the City of Plymouth, a utilities district and a parks & recreation

district, and served as an arbitrator for the American Arbitration Association for more than 15 years. John was appointed to the Sacramento County Air Pollution Hearing Board by County Supervisor Don Nottoli, and continues to serve after more than 20 years. But his most gratifying—and longest-running—assignment is his service as a part-time instructor in the Civil Engineering Department at Sacramento State.

By the time he earned his undergraduate degree at Sacramento State in 1975 (he became registered as a civil engineer in 1970), John already had a wife, three kids and a job with Murray-McCormick Engineers. He had completed floodplain studies for the Army Corps of Engineers in Georgia while working on his degree. Despite his full plate, John's professors and colleagues made quite an impression on him.

About five years after he graduated, having already started German Engineering, John got a call from former Sacramento State Civil Engineering Professor Bill Neuman. "I was working 24/7 with my business, but out of the blue he called me and said, 'I have a class for you to teach, would you like to come teach it?" says John. "I liked it so much I did some more – I took on Engineering Economics, Probability and Statistics for Engineers and a fluids lab. Running your own business, you can make your own schedule, so I was able to have the best of both worlds."

Currently, John teaches CE 9 (Plane & Topographic Survey), though he says he never intended surveying to be his specialty. "My expertise was water, hydrology, specifications and contract documents," he says. "Water systems, drainage, that kind of stuff. But surveying was part of every one of those jobs so I kept doing it. When I quit surveying, I will quit the university and that will be the last thing I'm doing there. I am up in years and the University has so much better talent than me that sometimes I wonder why it keeps me there.

"I love surveying, the students love it and the labs are fun," he continues. "Surveying has been going on for centuries; the pyramids were surveyed 4,000 years ago by the Egyptians. In today's world every time you see a contractor with a bulldozer, surveyors have been there ahead of him and marked out exactly where to go."

In his 32 years as principal of German Engineering, John's work took him far and wide, hence his registration in California, Georgia, Nevada, North Carolina and Hawaii.

"I had clients with business in those states, so I became registered there," says John. "It was good experience seeing a lot of the country and working with the Army Corps of Engineers. In my own practice and working here in California, I had experience working on projects at five water districts, treatment plants, and pump stations. When I retired, the City of Plymouth named a day after me."

Even after closing the doors of German Engineering and turning down requests to work for former clients, John



**6** We don't have any problems with discipline or students who don't want to come to class or do their assignments. How can you be so lucky to have these kind of kids to teach? It is an honor to teach them. **? ?** 

— John German



continues to teach, and he has an important message for all engineering students. "I keep trying to emphasize that being able to write is one of the most important things they can do," he says. "We write specs, contract documents, reports that are 200 or 300 pages long. We have to present them to government agencies and funding

agencies and clients. Engineers need to be able to explain things so people can understand. It may be more important than the math we do."

That said, John has nothing but praise for his students. "You can't believe how bright these kids are – it's just amazing," he says. "We don't have any problems with discipline or students who don't want to come to class or do their assignments. How can you be so lucky to have these kind of kids to teach? It is an honor to teach them."

And he feels fortunate to work with the CE faculty. "It's a wonderful environment with very intelligent people," says

John. "Believe me, all over the world our professors are known. The university has been so good to me; it treats me like gold."

With more free time on his hands, John has taken some Spanish courses and traveled with friends to Spain and Chile, where he endeavored to speak only Spanish. "I'm not that good, but what a pleasure it is," he laughs.

Reflecting on his role at Sacramento State, John recalls advice given to him by his favorite professor, Bill Neuman: "He told me our job is not to worry how students got here, but to get them through. The student is first. We work hard to give them everything we know and they have to work hard to give it back to us."



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#### Structural Engineering Research Team Tests Bridge Girders for Caltrans

A new precast bridge girder developed by Caltrans, the "wide flange girder," is being tested in the Sacramento State Structural Engineering Research Laboratory as the subject of a graduate research project that is expected to positively impact the bridge industry's move toward Accelerated Bridge Construction.

Dr. Eric Matsumoto, PE, who is advising graduate student Alban Gjongecaj, says that the precast, prestressed girder was developed as "a more efficient precast section that can span longer distances. Caltrans had a question about whether this girder would be workable with precast deck panels. The panels are placed in the field on the edge of the top surface of the girder, so the detailing and capacity at this location are critical issues that required investigation," says Dr. Matsumoto.

A longtime working relationship between Dr. Matsumoto, Caltrans and Con-Fab California Corporation proved fortuitous when Con-Fab graciously donated two girder specimens to the Department for testing.

"Con-Fab did a small internal test with a limited load to prove the girders can hold the deck panels and construction loads," says Alban, who is being



SACRAMENTO STATE



advised by Dr. Matsumoto for his graduate project. "The specimens stayed intact, so Dr. Matsumoto requested that Con-Fab donate them for testing to failure."

"A main reason to use precast girders is speed of construction," says Dr. Matsumoto, "and combining precast deck panels with precast girders produces multiple benefits. We're trying to develop new techniques for Accelerated Bridge Construction in California. Other states have used precast deck panels on their girders for years, but California has been hesitant to implement them because of challenges that arose from past practice. We need to build reliability and confidence in this important system."

So Alban and Dr. Matsumoto, with the help of another graduate student, Rakeeb Khan, and a team of seven undergraduate research assistants, who dedicated much of their summer to gain valuable experience, became the Wide Flange Girder Research Team. Dr. Matsumoto explained the process: "I work with Caltrans to establish our test objectives. Then Alban and our team of students carry out testing and analysis to meet the objectives. We're not merely producing a report but specific recommendations for improved construction details and safe design loads."

In investigating failure modes of the girder when paired with a precast deck panel, the team tested two common construction details for the top flange of the girder: conventional rebar and welded wire rebar. "We developed a test plan, and installed, secured, and instrumented the specimen. During the test, we measured displacement, strain, and load using dozens of gauges," says Dr. Matsumoto. "It was an impressive sight – and a lot of great teamwork by the students."



"We took the specimens to failure," says Alban. "We tested both sides of the girder, so we got four tests out of two specimens. We induced a line load along the edge of the top flange, which simulated loading from a precast deck panel. The specimens held upwards of 40 kips at ultimate but displayed different failure modes, both brittle and ductile."

"During the research, the students get so enamored," Dr. Matsumoto adds. "They get really captivated when they engage in hands-on research because the theories they learn in the classroom come alive. And they learn not only to work hard but also to work together. On test day, their enthusiasm,



curiosity and comradery are on wonderful display. It's an unbelievably valuable process that helps mold them into the next generation of civil engineers. At the same time, they are contributing to important research that is improving mobility across California."

This fall, the research team continues to analyze data and develop conclusions that will result in new design guidelines and construction details for Caltrans to confidently use precast deck panels on their new wide flange girder. Alban, who expects to receive his master's degree in December, says it has been "a great experience."

Dr. Matsumoto says, "Alban has performed spectacularly in leading the student research." They both express gratitude to the other members of the Wide Flange Girder Team: Rakeeb Khan, Khanh Nguyen and Jesse Gilbert (analysis), Michael Capili (AutoCAD), Whitney Maxfield (instrumentation), Michael Lucas (camera), and William Cope and Matthew Rosatelli (construction), as well as Professor Benjamin Fell, PE, who assisted with the test setup and testing; Jim Ma, PE, and Say-Gunn Low, Ph.D., PE, from Caltrans, and Doug Mooradian from PCI West ); Brent Koch, PE, from Con-Fab California Corporation (Precaster/Specimen Donation); and Jim Ster and Mike Newton from the ECS Tech Shop.

### NEWS & NOTES

#### Faculty





Dr. Karen Hansen and Department Chair Dr. Kevan Shafizadeh were promoted from the rank of "associate professor" to the rank of "full professor" in August 2014.



Emeritus Professor Dr. Ken Kerri recently received two prestigious distinctions: he became a Water Environment Federation (WEF) Fellow and was bestowed with an honorary membership to the American Water Works Association (AWWA). Both are the highest honors given by each organization. "These are really in recognition of the role the Office of Water Programs has played in performing research and educating people of our research findings, as well as helping operators and managers operate and maintain their facilities to protect public health and the environment," said Dr. Kerri. "OWP's training programs are used all over the world and both WEF and AWWA are international organizations."

#### Students

#### Summer Academy Explores Transportation Opportunities

A small group of Civil Engineering students found themselves in the midst of an invigorating educational experience during their participation in the 10-week Summer Transportation Academy (STA) organized by Department Chair Dr. Kevan Shafizadeh, PE.



In its second year, the program exposed students to a wide variety of experiences to make transportation engineering a tangible option on which to focus their future studies or career. The once-per-week meetings brought STA participants to sites



in the region that illustrate how this field affects everyday life.

"We went to the Caltrans Lab in Folsom and got a tour to see what they do," said student Celia Andrade. "One of the forms of transportation was biking, so on another trip we went to Davis and took a tour of the campus [transportation facilities] on our bikes. We went to the transportation engineering area, and they gave us a tour of their programs at UCD."



"One of the cool things we got to do was go to the Highway 50/Watt Avenue

interchange project," said participant Karen Kulesza. "We were able to walk around and see where they are in the project and talk to the engineers about it."

Another student participant, Michael Lucas, joined the STA to broaden his horizons beyond structural engineering, the field he'd initially planned to pursue. "It was nice to go to the various locations Dr. S had chosen due to their differences," says Michael. "Not one was similar to another. The approach on certain trips was interesting – one week we went downtown and walked around; we took public transit. We got to see the mayor and walk through City Hall."

Visits to public and private engineering firms were also part of the STA curriculum, as were on-campus workshops directed at résumé building and learning about graduate schools that offer transportation engineering programs.

"For me, STA was a whole new experience because I haven't really seen engineering in action," said participant Nicolas Jimenez. "But by visiting numerous firms, agencies and project sites, I got to see firsthand how my schoolwork is applied in the field. And having other students in the program also helped because we learned from each other. We all came from different backgrounds and are pursuing the same goal."

The overall takeaway? Most of the students reported that because of STA, they could see themselves entering the transportation engineering field. "There are a lot of areas of transportation you can go into," said Celia. "It was surprising how many. Bicycling is one, bus routes is another, light rail, even pedestrian. It's amazing to know there are so many people working to make easier and safer routes for the public."



#### Alumni



**2013...** Kelsey Warner has had an exciting year, to say the least. After graduation, she took a cruise with stops in six countries, "including a stop at one of the world's greatest

civil engineering marvels, the Panama Canal," says Kelsey. Soon after, she began working for MacKay and Somps.

"Since I started there, my team and I have worked hard to receive approval on five subdivisions located in the County of Sacramento and City of Elk Grove, which are now all under construction!" she says. "It's amazing to see the lessons we learned in school being applied to create the foundations for people's homes." To top it off, Kelsey's fiancé proposed to her during a San Francisco Giants game with her entire family present. The happy couple recently purchased a 10-acre property on which they'll raise their future family.

"I can't believe how far life has taken me since I graduated," says Kelsey. "I am so thankful to have had such a strong foundation from Sac State that will lead me to succeed in my career and continue to give me the opportunity to live out these experiences."



**2012...** After completing a double major BS in Civil Engineering and a BA in Economics from Sacramento State, Mrudang Shah spent more than two years working as a Transportation Engineer

with Omni-Means in Roseville, primarily working on the planning/traffic side of transportation

projects. "While working full time was fulfilling and rewarding, I also wanted to get further education that would open up more exciting opportunities," says Mrudang.

So, he is now at the University of Southern California (USC) pursuing a Master of Science in Civil Engineering (MSCE) – Construction Engineering & Management. He anticipates graduating in Spring 2016 and taking his PE license exam in April 2015 and LEED AP certification exam in November 2015.

"CSU Sacramento, in particular the Civil Engineering Department, has played an instrumental role in my academic and professional career," says Mrudang. "I am proud to be a Sac State alumnus!"

**2012...** Brian Reid, a Civil Design Engineer at MiTek Industries, says that after five years together, he and his wife married in July 2011. Then, at the start of this year, they found out they were expecting their first child. Their little girl, Maya LeAnn Reid, was born on September 11, 2014. She weighed 10 pounds, 2.6 ounces and was 20.1 inches long. "We are looking forward to teaching our new daughter about the joys of life," says proud new dad Brian.



**2010...** Nicole Dawn Weideman, PE, worked for Parsons Brinckerhoff upon graduation and worked on the Natomas Levee Improvement Program for Sacramento Area Flood Control Agency. Upon completion of the project, she moved to Sacramento Suburban Water

District, where she interned during her time at Sacramento State. Shortly thereafter, she obtained her PE license.

"Due to the large amount of wells within our district (82 and counting)," says Nicole, "my position was created to run well production-related projects including rehabilitation, property acquisition and drilling of new wells, necessary treatment requirements given new state maximum



contaminant levels and regular maintenance activities. I work in coordination with the Production and Operation Departments as well as the Environmental Compliance Department."



**2010...** Sean de Guzman, PE (MS '14), has been working as a Water Resources Engineer for the California Department of Water Resources (DWR) since January 2011. He is currently working in the Snow Surveys Section, where he forecasts water supply for the major Sierra Nevada basins.

He also helps develop watershed-specific Precipitation Runoff Modeling System models and other hydrologic models. Sean earned his PE in December 2013. He is happy to announce his marriage to Natalie Sadler on August 9, 2014 in Carmel-by-the-Sea.



**2009...** Lindsey (Shelton) Van Parys, PE, and Jason Van Parys ('08) were recently married on August 2, 2014. They met in 2006 at a monthly Sacramento State ASCE Student Chapter meeting. While friends throughout college, they reconnected when Jason, also a graduate of the Air Force ROTC Detachment 88, was

Photo courtesy Stout Photography

assigned to Travis AFB in 2011. Jason is now an Instructor Pilot on the KC-10 Extender and Lindsey is a Project Manager at Omni-Means, specializing in transportation projects.



**2008...** Since graduating, John Kozak, PE, who has worked at Dokken Engineering for four years, married his wife Melissa. They recently welcomed a baby girl, Brooke Olivia. "My beautiful wife and 7-month-old daughter await me with love when I get home from work," says

John. "Life is much different now than the days of studying for hours at the library, but I'm excited to say working as a professional engineer has been gratifying."

**2008...** David Haven, PE, met his future wife, Christine Dwelle, in August 2008, a few months before graduation. They were engaged on Christmas Eve in 2011 with plans to

marry on August 16, 2013 – the five-year anniversary of the date they met. But a diagnosis of throat cancer in June 2013 changed everything. That August, David began a six-week series of grueling radiation treatments that left him in such pain he could not eat, and he lost 35 pounds. David and Christine moved their honeymoon up to the end of July and married on the chosen date in August. Then, in December, the cancer returned (this time on his tongue) and David underwent a 14-hour surgery that left his tongue partially paralyzed and makes it difficult to swallow. But, David is now cancerfree.

"The support I have received in all this has been nothing short of life-changing," he says. "I am so grateful to be alive, and still working as a civil engineer. My health is good, my spirits are good. I had some very dark days, but I have relied on therapy and my family, which were life-saving for me."

**2007...** Veronica (Garcia) McGrew, PE, Associate Civil Engineer at Morton Pitalo, is the delighted new mother of a baby girl. "Elsa Lisette McGrew was born August 15, 2014 at 12:22 a.m.," reports Veronica. "Elsa weighed 8 pounds, 7 ounces and was 21 inches long. All is well and healthy."

### Support the Department

Looking for a way to support the Civil Engineering Department? We have four different funds that enhance our ability to educate students:

- The Ken Kerri Endowment Fund Gifts to this fund support faculty and student enrichment activities.
- The CE Freshman Scholarship Fund Scholarships are given to outstanding freshmen.
- The Graduate Environmental/Water Resources Scholarship Fund – Scholarships go to deserving graduate students in the environmental or water resources engineering areas.
- The Department Trust Fund These resources support student attendance and participation at conferences and competitions, senior design project team expenses, and equipment for labs when other funds are not available.

To add your support to any of these funds, go to www.ecs.csus.edu/ce/support.html and follow the directions for online donations. Or mail a check made out to the appropriate fund to the Department of Civil Engineering, Attn: Neysa Bush, California State University, 6000 J Street, Sacramento CA 95819-6029.

## **EVENTS**

**November 6, 2014:** *Eleventh Annual An Evening with Industry* 

April 13-17, 2015: Alumni Week

**April 15, 2015:** Seventh Annual Ken Kerri Endowment Fund Luncheon

**May 8, 2015:** Fourth Annual Civil Engineering Golf Tournament

### **2015 Annual Sponsorship Program**

The Department of Civil Engineering announces the 2015 Annual Sponsorship Program for firms and agencies that want to sponsor a package of our most popular department events during the calendar year. Sponsors can save time, energy, and money by supporting different events in one step. All sponsorship levels are discounted and provide additional benefits over individual event sponsorship. For more information, please visit: www.ecs.csus.edu/ce/2015\_Annual\_Sponsorship\_Program.pdf

