

*Your Link to the Department of Civil Engineering*



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# CHAIR'S MESSAGE



## Dear Friends and Colleagues,

On Saturday, February 22, 2014, the Department celebrated 50 years at Sacramento State by hosting a reunion and open house with its alumni and their families. While scheduling an outdoor event in the middle of February in Sacramento can be a little risky under normal weather patterns, it turned out to be a spring-like, clear and sunny day. Between Riverside and Santa Clara Halls, there were tables set up with catered food, beverages and flowers. Best of all was the mix of people who attended – recent grads, not-so-recent grads, members of their families, current faculty and emeritus faculty. Fifty years may not seem like a long time until you see this impressive mix of people. While there were no longer any founding faculty of the Department, there were former students who have gone on to become presidents and founders of engineering firms or leaders within public agencies. Dr. Ken Kerri, the honoree of the upcoming Ken Kerri Endowment Fund Luncheon, was there with his wife Judy.

Some people were there to see to see their old professors, like Dr. Kerri. Some came to see old friends and colleagues. Still others were there to see the Civil Engineering facilities and to share stories about how the program had evolved. One of the highlights for me was giving a tour of some of the facilities to alumni. Many of them were impressed with the labs and the technology. Some recalled a time when an engineering building didn't even exist – as they referred to Santa Clara Hall – not the "new" Riverside Building built in the 1990s.

What was most apparent to me after this event was that 50 years is, in fact, a momentous anniversary. These years are marked by the thousands of students who have become professional engineers, and by the professional engineers who have become leaders in the greater Sacramento region. When you see and hear about how the program has grown, you realize that 50 years is truly a significant milestone. You also realize that the greatest reward comes from knowing that the contributions others have made in the past combined with the contributions we continue to make today will be our collective legacy. The generations of civil engineers who graduate from Sacramento State and the work they do will be this Department's legacy. The first 50 years is simply preparing the Department for continued success for the next 50 years – and more.

*Thank you for your continued support,*

*Kevan Shafizadeh, Ph.D., P.E.  
Civil Engineering Department Chair*

## On the cover...

CE graduate student Juan Carlos Arrieta ('13) gives a demonstration in the hydraulics lab for a group of alumni during the 50th Anniversary and Open House on Saturday, February 22, 2014.





## Ken Kerri Endowment Fund Luncheon



The sixth annual luncheon benefiting the Ken Kerri Endowment Fund, planned for Wednesday, April 9, will feature keynote speaker John Laird, California's Secretary for Natural Resources.

Laird served three terms in the California Assembly representing portions of Santa Cruz, Monterey and Santa Clara Counties. During his time in the Assembly, he authored 82 bills that were signed into law, including legislation establishing the Sierra Nevada Conservancy. His legislative legacy also includes significant strides in expanding water conservation.

Since terming out of the Legislature, Laird was a member of the State Integrated Waste Management Board from 2008 to 2009 and taught state environmental policy at University of California, Santa Cruz.

Prior to his career in the State Capitol, he was elected to the Santa Cruz City Council and also as mayor of that city. During that time he also served as a board member for local transit, transportation, water planning, and regional government agencies.

The Ken Kerri Endowment Fund Luncheon is held in the midst of Alumni Week, an exciting time for students because their classes are visited by alumni who are now professionals in the field and can offer advice and their own unique career experiences.

The Endowment Fund supports faculty and student enrichment activities, and even if you can't attend the luncheon, you can make a tax-deductible contribution to the Fund anytime at [www.ecs.csus.edu/wcm/ce/support.html](http://www.ecs.csus.edu/wcm/ce/support.html).

## KEN KERRI Endowment Fund LUNCHEON



**Wednesday, April 9, 2014**

**11:30 a.m. – 1:30 p.m.**

**Sac State Alumni Center**

**Cost: \$25**

**RSVP by April 4 by contacting Neysa Bush at**

**[nbush@csus.edu](mailto:nbush@csus.edu) or calling 916-278-6982**

**Check out [www.ecs.csus.edu/ce/](http://www.ecs.csus.edu/ce/) for more information.**

## Mid-Pac – Come Support Sac State!

This year's American Society of Civil Engineers (ASCE) Mid-Pacific Conference will be hosted by California State University, Fresno from April 2-5, 2014. Sacramento State will be one of 15 schools from Northwestern states vying for the lead in the Mid-Pac competition, which will include Concrete Canoe, Steel Bridge, Water Treatment, Transportation and Geo-Challenge. Many alumni remember what a valuable event this was during their time at Sacramento State, as it helps reinforce critical skills like working with a team, budgeting and communication. Students have been busy preparing for the event; if you're near Fresno during the first week in April, check it out and show them your support.

## THE 3<sup>RD</sup> ANNUAL CIVIL ENGINEERING GOLF TOURNAMENT

**Get out into the fresh air and join other members of the Sac State CE community at the third annual Civil Engineering Golf Tournament!**

**Mather Golf Course | May 9, 2014 at 8:00 a.m. | \$125/person (includes lunch)  
Sign up by Friday, May 2, 2014 [nbush@csus.edu](mailto:nbush@csus.edu) or 916-278-6892**

## Evening with AN INDUSTRY

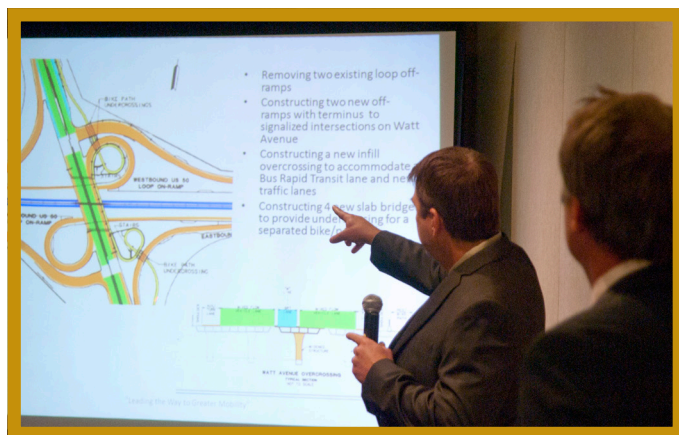
### An Evening with Industry

Nowhere is the importance of networking more evident than at An Evening With Industry, which in November held its 10th annual – and largest yet – event in the Alumni Center. With more than 200 Civil Engineering students, alumni, faculty and sponsors in attendance, it was clear that building and maintaining relationships with colleagues is the cornerstone of a successful engineering career.

#### Keynote: Watt Avenue & U.S. 50 Interchange Project

After time to mingle and chat with sponsors looking to hire interns and graduates, the keynote speakers presented an overview of the Watt Avenue at U.S. Highway 50 Interchange Project. The speakers included John Jaeger, PE, a Senior Civil Engineer with the Sacramento County Department of Transportation (SacDOT); Rob Himes, PE, Principal at Mark Thomas and Company; and Dr. Ahmad Abdel-Karim, PE, who manages the structures division of AECOM in Sacramento.

The high-profile interchange project's goals include reducing congestion, improving safety, enhancing access for pedestrians and bicycles,



accommodating transit and correcting incompatibilities with ADA compliance. Currently, the interchange is built to handle 50,000 vehicles a day, but the reality is more like 70,000 to 100,000 per day, according to the presenters.

With maps and photos, the speakers illustrated how the improved intersection will have a well-lit and landscaped pedestrian multi-use path under the freeway, emergency call boxes, a seismic retrofit of the existing overcrossings and decorative lighting along Watt Avenue. The ramps will meter the flow of vehicle traffic and each will have two lanes, improving traffic flow.

#### Professional Panel: Sound Advice for Current Students

Next up, a panel consisting of five Sacramento State Civil Engineering alumni discussed their varied careers. Panelists were Thea Durbin, PE (2005), Bob Lokteff, PE, GE (1991, 2000), Stephen Lynch, PE (2007), Derek Minnema, PE (2002) and Lupe Rodriguez, PE, TE (1993) – learn more about what these distinguished alumni are doing on page 8 and pages 15-16 in Alumni Notes.

"There are a lot of my colleagues and fellow graduates here representing their firms," said Lynch. "Networking is important; you will deal with your colleagues regularly," he advised students.

Asked what they liked best about their careers, Lokteff responded, "I get to play with dirt, make recommendations, and go out and see it get built." Lokteff is a Principal



Geotechnical Engineer with Blackburn Consulting.

Lynch, a Project Manager and Estimator for Granite Construction Company, added, "I like the versatility construction offers; I like being outdoors. And even if you start in one field of engineering, you don't have to stick with it forever."



Minnema, a Project Manager at Mark Thomas & Company, said, "I take pride in driving around the community and seeing projects I've worked on." He also stressed that students should make it a priority to intern before graduation.

For Durbin, Associate Engineer at West Yost Associates, the "aha moment" that decided her career path came when she realized, "We'll always need sewer pipelines, and I'm good at it."

When asked how long it takes to not feel "green" anymore as a new engineer, SacDOT Principal Transportation Engineer Rodriguez advised: "Just work hard every day. Make contacts, get internships and improve each day."

### **Mingling with the Sponsors: Many Familiar Faces**

Many of the firms that sponsored An Evening With Industry brought their Sacramento State grad employees to represent them and recruit new talent. At the Mark Thomas & Company booth, Aaron Silva, PE, a 2007 graduate, estimated that of about 175 employees companywide, his firm consisted of nearly half Sacramento State alumni – about 40 in the Sacramento office alone. "I think the Civil Engineering Department does a good job prepping us for life outside school," Silva said. "Sac State grads tend to like to give back to the university."



Added Kira Davis, a 2013 graduate also with Mark Thomas, "It's really beneficial to intern. You learn how things are put together." Davis interned with her firm for two years while attending Sacramento State.

Steve Smith, who was representing sponsor MacKay & Soms, said this was the first time his firm had attended An Evening With Industry. "We have 45 employees and probably 20 to 25 percent of them are Sac State grads," he said. "Hiring is picking up significantly. We'll be looking for six to seven more in the next few months."

By the looks of this highly successful event, Smith – and all the other firms in attendance – certainly came to the right place.





## Department Reunion Celebrates 50th Anniversary

A sunny Saturday with a high of 73° provided a perfect backdrop for the outdoor celebration that reunited 50 years of Sac State Civil Engineering alumni and faculty. On February 22, 2014, the gathering on the patio behind the Engineering building evoked laughter and a mood of friendly nostalgia to all those present.

Ed Santarosa, PE, one of the Department's first graduates, recalls that in the early 1960s, there



was simply an Engineering Department with no Civil Engineering major. "It was more general then," he says. "That suited my career, but [if I were a student] now I wouldn't get as general an education. At work over the years that was true, too. It's a product of our times."

Santarosa, who as a student served as a lab assistant to Ken Kerri, remembers classes with only 8 to 10 students. "We got lots of personal attention," he says. "But we didn't have a lot of educational opportunities students have now, like the labs—they are more sophisticated now."

He had a long career as a Civil Engineer, during which he worked on major sewer interceptors for the Sacramento Sanitation District and on infrastructure for five major prison projects. Santarosa is now retired from CH2MHill, but still goes into the office once a week. "It helps me remember what day of the week it is," he says with a laugh.

Dr. George Kostyrko, PE, retired from the Department's full-time faculty in 2003 after 35 years of teaching. He also commented on the incredible evolution of technology in engineering. "People don't realize how far computers have come," Kostyrko said. "To teach a lab course back then, you'd spend a quarter of the time teaching how to use computers and less time on the subject matter. Also, now, with state-of-the-art equipment we're able to test things realistically, not just small-scale models."

In 1988, Kostyrko was highly instrumental in the creation of the Department's structures lab. Chatting with Marco Palilla, PE, who earned his bachelor's degree in 1981 and his master's in 1985, the two reminisced about the establishment of the Engineering building.

Palilla, like many alumni, shares a common admiration for Dr. Ken Kerri, who was also in attendance. "I was tutored by Ken Kerri, who helped me get my first job at Brown & Caldwell as a student," says Palilla. "I leveraged that into a 16-year career in environmental wastewater."

Presently an Associate Vice President at HDR Engineering, Palilla says, "I am really a water marketing manager. I've taken all my engineering skills and turned them into marketing skills. I avoided English and communications when I was here in school, but then I got a job at Brown & Caldwell and realized, 'All I do is write!'" Current students, take note!

Another alumnus whose career has taken on multiple roles is Joyce Copelan, PE, who earned both her B.S. and M.S. degrees from the Department. Previously, she initiated the string program for the Davis School District as a violin teacher and worked in a team at a UC Davis lab as a



biochemist figuring out the structure of a virus (she also holds a B.S. degree in biochemistry). Now a licensed Civil Engineer, she inspects bridges and is an author of a chapter in the recently published *Bridge Engineering Handbook, Second Edition: Construction and Maintenance*.

"Biochemistry was interesting to learn about," says Copelan. "But engineering is both interesting to learn about, and interesting to do." Copelan fondly recalls some of her favorite professors – Dr. Vishnu Agaskar, Dr. Ajit Virdee, Dr. Cyrus Aryani, Dr. Ralph Hwang, Dr. Les Gabriel and Dr. Ken Kerri.

"My education at CSUS has opened up many doors and provided an interesting career that I love," she says. "The people I went to school with continue to be my friends now. I appreciate the work of the professors and staff at CSUS, and I would like to congratulate the Department on its anniversary."

Earning a degree in engineering definitely can change the course of one's life. Just ask Bill Busath, PE, who earned his bachelor's degree in 1990 and returned to earn his master's in 2012. He is a Civil Engineer and Water Resources Division Manager for the City of Sacramento Department of Utilities, where he's worked for 17 years.

A father of seven, Busath says, "Graduating made all the difference in the world for me and my family. Aside from marrying my wife and having our children, graduating from Sac State is the best thing that's ever happened to me."

He has given back to the university through his work on the Environmental and Water Resources Engineering Graduate Advisory Committee and the Ken Kerri Endowment Fund. Having earned his degrees more than a decade apart, Busath has some valuable perspective: "The emphasis of a Civil Engineering degree has always been practical, but now it's more focused on effective communication and project management," he says. "Those things are pretty critical and will make or break a good Civil Engineer."

Speaking of the Ken Kerri Endowment Fund, Dr. Kerri himself gives credit to Dan Hinrichs, PE (B.S. 1970, M.S. 1972), for actually starting it. Hinrichs is a dual licensed Civil Engineer and Agricultural Engineer who's owned DJH Engineering,

a consulting firm that specializes in wastewater reclamation for agriculture, for nearly 23 years. He has worked with municipal wastewater agencies, but more recently the demand for his services comes from food processors and wineries.



Hinrichs also served as Chair of Sac State's Environmental and Water Resources Engineering Graduate Advisory Committee, the purpose of which is to find companies to sponsor graduate research.

Reflecting on how he's constantly learning new things, Hinrichs recalls, "There used to be a sign here that said, 'The half-life of an engineer: Half of what you learn today will be obsolete tomorrow. The other half you don't know yet,'" he says with a chuckle. "I live by that."

As the afternoon wore on and caterers began gathering the uneaten appetizers, the crowd began to dwindle. Dr. Cyrus Aryani pondered the changes he's seen during his career. "When I came here in 1988, we had 350 students in Civil Engineering," he says. "Now it's over 750. People are realizing how important Civil Engineering is."

"Things people take for granted – clean drinking water, buildings, roads, traffic, levees, flood protection – these are things that can't be exported to other countries," Aryani continued. "I've been here for 26 years and the time has gone by so fast. I've had a great time, and today it's good to see people who came here before me. It's great to have them here to visit the campus and connect to the Department and the college."

# ALUMNI SPOTLIGHT

## Bob Lokteff: The Accidental Entrepreneur



Sitting on the alumni panel at An Evening With Industry this past November, Bob Lokteff, PE, GE, fielded a question from a student curious about working for an engineering firm versus managing one's own consulting

business. Lokteff didn't hesitate to tell the inquirer that becoming a partner in Blackburn Consulting was "the best move I ever made." The growth of Lokteff's firm is evidence of that, but the road to success hasn't always been smooth.

Growing up as the son of an engineer, Lokteff discovered in high school that scientific pursuits were his strength too, so he knew engineering was likely in his future – he just didn't know which field. During his undergraduate studies at Sacramento State (and still today), Dr. Cyrus Aryani was the main professor teaching geotechnical engineering.

"I really enjoyed his classes," Lokteff says. "His obvious love for geotechnical engineering and the way he was able to relate complex concepts got me hooked." Describing Dr. Aryani as very down-to-earth, Lokteff says, "He presented things in an understandable and interesting manner."

Earning his B.S. in Civil Engineering in 1991, Lokteff was already employed at Anderson

Consulting Group, where he remained for nine years. After a year or two in the geotechnical testing lab, he started doing project engineering work – much of the same type of work that he'd later manage at Blackburn Consulting, but "the biggest difference was that at Anderson, most of the work was residential development for developers building homes and subdivisions," he says. "At Blackburn, we work on public works projects, roads, bridges, levees, dams, pipelines, water/wastewater treatment facilities and so on."

In 1998 he joined Tom Blackburn, who provided the financial backing and business knowledge to start up Blackburn Consulting. "As we grew, I became a partner with Tom as I bought into the business," he says. Lokteff is quick to say that he "appreciates the opportunity and guidance that Tom provided."

Now Principal Geotechnical Engineer in charge of Blackburn's West Sacramento, Modesto and Fresno offices, he recalls that at the start of his career, he didn't think he'd someday be managing a business.

"I am not an entrepreneur by nature, but Tom is," Lokteff says. "Before working here, I'd come to work and someone would give me a project to work on. Someone else would review it and get it out the door. That's all I knew." Now, he realizes all the complexities that go into business management.

"You have to have good, smart people doing the work, but nobody would have a job if you weren't out there promoting your company, making contacts and relationships in the engineering community," he says. "You're constantly looking for where the next work is coming from so you can feed your company with work; otherwise you don't have a company."

Although he never took business classes, in retrospect Lokteff advises anyone who might even be thinking of entrepreneurship to earn a business degree on top of their engineering degree.





Some of the most potent lessons he's learned revolve around money, of course. It's essential to ensure your rates are high enough so that in turn, you can reinvest in the company and pay employees well enough to keep them, he says. And, doing the work for which you're contracted is a given, but getting paid? It's not always so simple. When the entity that owes his firm money is waiting for government funds or cash flow from some other source, it can take six months or more to be compensated. "We can be second or third in line to get paid," he says. "It's an eye opener having to balance payroll knowing you may not get this money for months."

Another piece of business advice Lokteff offers is to "differentiate yourself from your competition. Clients want to use you because you have something they like. Remember what that is and enforce it in yourself and your employees."

In the years since he's completed his degrees (he earned his M.S. from Sac State in 2000), Lokteff sees some differences for geotechnical engineers entering the field today. "You have to wear a lot of hats. You can't come in and say 'I just want to do engineering,'" he advises. "You'll need to work in the lab, go out and do field testing – and do it for more years than you would have, say 10 years ago."

Asked whether California's current drought declaration affects his firm, Lokteff says it's still early but "usually it takes something like this for some projects to get started – dams, water storage; I can see that type of work coming sooner than it would have otherwise."

Drought or not, Blackburn Consulting has a busy year ahead. "Construction of levees will keep us very busy this year," he says. "We're providing quality assurance testing for a 40-mile levee improvement project on the Feather River in Yuba City. We also have a lot of other transportation-related and pipeline projects."

While work keeps him extremely busy, and he occasionally longs for the less stress-filled life of his early days where he did not have to worry about the business end of things, Lokteff relishes the challenge of his position. "There's risk, reward and a lot of sleepless nights, but it's very rewarding to help grow and manage a company and mentor younger engineers," he says. In fact, his commitment to new engineers and engineering students is evident. The most recent Evening With Industry wasn't the first one he'd attended. "It's a great venue to meet students. I've hired at least four Sac State students over the years as interns."

Aside from the firm and his service to the California Geotechnical Engineering Association, where he chairs the legislative committee, Lokteff has a full family life as well. Married for 23 years, he and his wife have a 22-year-old son with a degree in public policy; a 21-year-old daughter in her senior year of college as a piano performance major; and a 15-year-old daughter still at home.

## 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/wcm/ce/support.html](http://www.ecs.csus.edu/wcm/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.**

## Fifty Years of Civil Engineering at Sacramento State

In 1963, Americans heard Dr. Martin Luther King, Jr.'s I Have a Dream speech. The movie *Cleopatra* was released, the first Tab cola was enjoyed and a new pope was chosen. A little closer to home, though, was the birth of Sacramento State's Department of Civil Engineering. Originally part of a larger school of engineering that encompassed civil, mechanical and electrical engineering, the Civil Engineering division broke off that year and created its own path with a small handful of faculty and about 100 students.

### In the beginning...the 1960s

Dr. Ken Kerri, whose name you may recognize, was there at the start, teaching surveying, fluid mechanics, water resources, sanitary engineering and statistics. "When I first started teaching in the early 1960s, many of the students were Korean War veterans, so the students were older than the faculty." Because many veterans had real-world experience in related fields, they saw Civil Engineering as an attractive option and used their GI Bills to pursue degrees at Sacramento State College (as it was called then, rather than California State University, Sacramento).

In fact, Professor Emeritus Bill Neuman – who served as faculty in the department for more than three decades specializing in hydraulics and

hydrology – was one of those war veterans who spent time in the Army (though his service was in Panama, not the Korean war) and used the geodetic surveying experience he gained toward his studies at Sacramento State upon returning to his hometown.

"Ken Kerri came when I was a student," says Neuman. "The department had no labs, no building. We used the Caltrans labs on 58th and Folsom." Upon his graduation in 1961, Neuman left to obtain his master's degree at Stanford University, then returned to Sacramento and sent his draft résumé to Dr. Norm Castellán, one of the first official members of the Civil Engineering faculty, for feedback. Castellán called him in for an interview and, although the résumé contained typos, offered Neuman a one-year temporary position. "Ken Kerri told me to ask for assistant professor, so I did and they gave it to me."

It was the dawn of a professional relationship and friendship that would span decades. Being such a small department afforded opportunities for faculty members to get to know one another well, and the faculty-to-student ratios were low, allowing a familial atmosphere. As Kerri fondly remembers, "In the early 1960s we had a picnic every spring and the faculty would play the students in volleyball and beat the students each time."

Neuman had joined the faculty in the fall of 1962, and challenges arose along the way, including the quest for accreditation. In 1964, the Department applied, was reviewed and declined. On the second try, the Department secured a two-year accreditation and soon after remedying some deficiencies (such as a lack of lab space), earned a six-year accreditation. Neuman credits San Jose State University for leading the way toward accreditation, since it was the first state university whose Civil Engineering Department achieved that feat. "Silicon Valley was in bloom and SJSU made it all happen. Accreditation allows you to effectively argue for money from the administration," says Neuman.

Funding was important, since back then, "there were no computers. Everybody used slide rules," says Kerri. In fact, the university had a computer – "a huge one that filled up a room," he says – and the Department utilized it in the absence of its own. But Neuman remembers that the



Department wasn't authorized by the state Department of Education to have computers. So they found a way around the limitation: "We had to buy it in parts. We submitted a roster of electrical parts and then it came assembled. That got it past them."

In 1968, with help from Sac State's Education Department, Kerri established the Office of Water Programs (OWP). "We develop training programs for people in water treatment, distribution, wastewater collection, wastewater treatment and reuse, and utility management." After years of growth, OWP is still active today. According to Dr. Ramzi Mahmood, Director of OWP and former Chair of the Department of Civil Engineering, "OWP is the number one training provider in the nation [for operators of water and wastewater treatment plants]. All states and Canadian Provinces approve our operator and manager training materials."

### **The 1970s, 80s and 90s: Expansion, growing pains and evolving technology**

In the early 1970s, the Department gained the ability to offer master's degrees, and Kerri and Neuman had gained tenure. The Department's faculty grew, along with the student body in all branches of engineering at Sacramento State. Development of better and more efficient building materials and methods of computation were hallmarks of this era in Civil Engineering.

In 1984, Sacramento State welcomed a new professor, Transportation Engineer Dr. Joan Al-

Kazily, whose experience included work on the Bay Area Rapid Transit (BART) system as well as irrigation and drainage work in Baghdad. She would later become chair of the

Department, serving in that role from 1998 until her retirement in 2002.

Looking back on years past, Al-Kazily, Kerri and Neuman all acknowledge that the biggest change in Civil Engineering over the decades has been the use of technology. "The basics don't change, but the computers have had obviously a very large influence on how we do things," Al-Kazily says. "When I arrived at Sac State we did not have computers on our desk; there was a computer lab. I think it was two to three years after I got there, I came in one morning and found a computer on my desktop. I was overjoyed!"

On the other hand, "When we learned how to do things, you had to do it the hard way and you really had a feeling for the numbers," she says. "If it was way off, you could see that. Today's students don't see that as much; [the calculations] all come out of the computer."

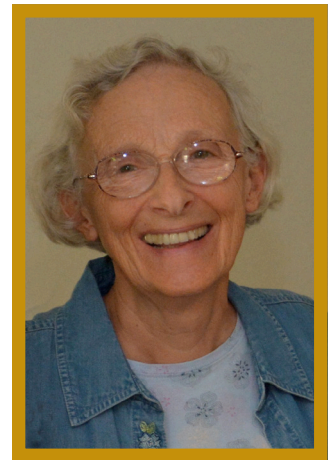
Leading up to her election as chair, Al-Kazily notes that the Department had been very stable under the leadership of previous chair, Dr. Vishnu Agaskar. "Then people started retiring about the time I became chair,

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“ It was very challenging.  
The faculty really stepped  
up. Having young faculty at  
that time was good. ”

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— Dr. Joan Al-Kazily



so during that period we were hiring people and there was a lot of change. It seemed the Department was changing from the old guard, most of us close to retirement, to new younger people. It was very exciting

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## ➔ continued from page 11

for me. I thought it brought a lot of life to the Department. John Johnston, Ed Dammel, and Eric Matsumoto were hired around that time.”

Another major change during Al-Kazily’s chairmanship was outcomes-based assessment, a new type of accreditation that shifted the focus from faculty and course offerings to what students are expected to learn – how do you prove they’ve learned something? “We’re always doing that but now we had to put it on paper and show we were looking at outcomes,” she remembers. “It was very challenging. The faculty really stepped up. Having young faculty at that time was good.”

Environmental and safety concerns necessitated major changes in the materials used for Civil Engineering during these important years. “We’re smarter and more efficient with materials in terms of building and design,” says Neuman. “We have the ability to design quake-resistant structures; a hospital may be destroyed but it won’t collapse. With traffic operations, we can get more cars on the road with the same amount of highway.” Neuman notes the use of new materials like structural shock absorbers, composites and glass fibers, among other things.

“From my perspective the water treatment and wastewater treatment processes are much more sophisticated,” says Kerri. “Today we’re very concerned about environmental impacts, mitigation of impacts, adverse impacts. The Department led the way locally on how to prepare environmental impact reports.”

### **The 2000s and beyond – Tying it all together: the Department, students and the community**

Joining the Department in 1994 as faculty in the geoenvironmental engineering area, Mahmood



says there was indeed a lot of demand for this subset of Civil Engineering. In 1997 upon Kerri’s retirement, in addition to his teaching duties, Mahmood took over as Director of the Office of Water Programs (OWP).



“One of the things I looked into was how we incorporate technology into the training program that OWP offered,” says Mahmood. “We did some CD-ROM application, online testing, revamped our website so it became a way for our students to order training materials.” Working with Kerri and Al-Kazily on

Caltrans-funded research focusing on how to manage stormwater runoff from highways, the workload increased and OWP began hiring research staff, which today numbers about 20.

“We recently started working with other agencies and some private companies in testing some of the stormwater-related technologies,” he says. “We also are developing inundation maps for dams. We’re branching out in other areas based on the expertise of our research staff, but at the same time we are maintaining our connection to mostly state and local agencies.”

This connection to the local and state engineering community is a thread that runs throughout most everything the Department accomplished during Mahmood’s chairmanship, which began in 2003. One key change was that student members were added to the Civil Engineering Program Industrial Advisory Committee (CEPIAC), since “most of what we do impacts students and we need their



voice." Although the Department already had a robust paid internship program that linked current students with private and government firms courting engineers, "An Evening with Industry" began in Spring 2004 as a networking event for students to meet and learn about these firms face to face. Initially held in a tiny lobby, the event grew and moved to the Alumni Center.

Engaging alumni was another element of the "connection" puzzle Mahmood sought to assemble. Enter the Ken Kerri Endowment Fund. Collaborating with the Civil Engineering Advisory Committee and the Graduate Environmental and Water Resources Advisory Committee, Mahmood acted on the idea that "we need to have a stable fund base that allows the Department to continue to be active in the community and fund student and faculty activities." The Department holds an annual luncheon (this year's will take place on April 9, 2014) and supports an annual grant to Civil Engineering faculty research activities, especially those activities involving students.

extremely well so they quickly rose to the top positions wherever they worked. People wanted them because they were good. That's the way it is today and has been for many years."

Mahmood reflects on what happens at commencement each year: "When the president says, 'Those of you who are first generation college graduates please stand up,' and when I look back and see a really significant percentage of the students standing, I feel I contributed to this – to help these students to basically change their life. And not only their life, their future generation's life. When you graduate from college in engineering, things improve for you and your kids and grandkids. When I look back at it I say 'Wow, I am part of that.' That gives me the greatest satisfaction with what I do. And I am delighted to be here."

Indeed, with the remarkable diversity of students at Sac State and in the Department itself, first-generation

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“ I am confident that over the coming years, our students will continue to excel and be leaders within the broader Civil Engineering community. ”

— *Dr. Kevan Shafizadeh*

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During the University's annual Alumni Month, the Department hosts its own Alumni Week, bringing back former students to visit classes and speak about their professional experiences. As Mahmood says, this completes the circle. "I tell students the Civil Engineering community is a small one, and you may end up working for or with your classmates; my message is 'be nice.'"

Overall, the Department and all who have been part of it have many reasons to take pride. Says Kerri of Civil Engineering students, "Sac State stands out; from day one our graduates were in demand from city, county, state, and federal governments and consultants. Our graduates did

students as well as those who come from long lines of college grads succeed together through group projects and shared experiences. And current Department Chair Dr. Kevan Shafizadeh is optimistic that the future is even brighter: "I hope we continue to grow in student enrollments as well as graduates, and that the faculty and course offerings expand to match that growth," he says. "I am confident that over the coming years, our students will continue to excel and be leaders within the broader Civil Engineering community."

## NEWS & NOTES

### Students

#### Transportation Education Symposium ...



The 19th annual Transportation Education Symposium may have been held in sunny Santa Cruz, but the two-day event was a bit more challenging than a walk on the beach. Sac State students Vian Somo and Spencer Ord were selected to attend the event, hosted by the California Transportation Foundation (CTF).

Says Vian, "The focus of the symposium revolved around the Request for Proposals (RFP) in which six assigned groups of students worked together to have a presentation ready the next day. It was exhausting because my group worked on the RFP until 2 a.m." Although this was her first introduction to RFPs, she and all the other students were able to understand the concept well enough to make presentations the next morning. Both Vian's and Spencer's groups were the two finalists; Spencer's group won the competition.

"My experience at the CTF Education Symposium was incredible and my interest in transportation engineering grew immensely during the conference," says Spencer. "Going into it, I didn't know what to expect. After being in the presence of all of the distinguished professionals, I feel so lucky to have been able to be a part of it."

Vian echoes Spencer's sentiment, saying her favorite part about the symposium was meeting and speaking to the professionals. "During one session, we were placed in groups to have talks about various topics," she says. "I truly enjoyed it because the professionals were very knowledgeable and explained, in detail, about how to better prepare ourselves as students quickly approaching graduation and ready to enter the CE field."

Travel for both students to and from the conference was supported by the Department. Their stay at the conference center was supported by the CTF.

### Alumni



**2008...** Jeff Werner, PE, BS, has transitioned from a consultancy with the City of Elk Grove to a full-time position as a Senior Civil Engineer, also serving as the Assistant Capital Program Manager. Prior to that he worked as a consultant to Willdan Engineering and Interwest Consulting Group, in both cases providing Public Works staff augmentation for the City of Elk Grove. Says Jeff, "In just under four years I rose from Assistant Engineer to project manager overseeing the design, environmental clearance, right-of-way acquisition, and construction phases of capital projects." He continues, "One of my larger projects, the Elk Grove Creek Trail Crossing at Highway 99, is currently in construction. The project includes





construction of a half-mile Class I bikeway and a 1,300-foot cast-in-place post-tensioned box girder bridge (pedestrian overcrossing) spanning Highway 99. Construction is scheduled for completion in Spring 2014." In his off time, Jeff and wife Becky keep busy with three sons ages 6, 4 and 2, who love football, baseball and soccer. Jeff is still a die-hard Detroit Lions fan.



**2007...** Darina Palacio, BS, Ph.D. announces having received her Ph.D. in Environmental Engineering Sciences. In 2009 she earned a Master of Engineering degree in Environmental Engineering Sciences with a focus on Water Resource Management/Hydrology, also from the University of Florida.

She has won numerous fellowships and awards. Most noteworthy, she was the 2012 AWRA 2012 William V. Storch Award recipient and was awarded one of Florida Education Fund's McKnight Dissertation Fellowships. Darina recently returned to Sacramento State as a part-time lecturer. She is teaching CE 181 (Geo-Environmental Engineering) and CE 170 (Principles of Environmental Engineering).

## Special News & Notes Alumni Feature – An Evening With Industry Panelists



**2007...** Stephen Lynch, PE, is a Project Manager and Estimator for Granite Construction Company in Sacramento. He has been working for Granite since graduating and has worked on many large-scale highway and airport construction projects including two design/build projects. He thoroughly enjoys participating in the coordination and construction of civil work and appreciates the unique challenges that each project presents.

"The best part of graduating and heading into the professional world," Steve says, "was that I no longer had to live off of Top Ramen and peanut butter and jelly sandwiches."



**2005...** Thea Durbin, PE, is a Senior Engineer with West Yost Associates, a firm specializing in water, wastewater and stormwater planning, design and construction management services.

She primarily works on water and wastewater pipeline design projects, consisting of system expansion, condition assessment, replacement and rehabilitation.

She has designed many notable, award-winning Sacramento-area projects in recent years, including the Central Trunk Sewer Rehabilitation Project, the largest cured-in-place pipe (CIPP) project in the country, and the Oak Park Regional Storage Facility, a 500,000 cubic foot underground storage facility under a soccer field, with parallel 10-foot diameter pipelines.

Thea enjoys traveling with her husband Todd and their (almost) 3-year-old son, Jack. They plan to visit Yellowstone, Grand Tetons and Glacier National Parks this year.

Thea misses the days of working on her Senior Design Project (CE 190) with her fellow classmates, but the one thing she didn't miss was an unfortunate incident that occurred at the start of project. "Yes, I was the student who caused the Department of Homeland Security to phone Dr. Ed Dammel," she says. "How was I supposed to know that I was taking pictures of fertilizer tanks?"



**2002...** After graduation, Derek Minnema, PE, joined Mark Thomas & Company where he is a Project Manager. Today he is responsible for leading the delivery of major transportation projects in the Sacramento region. His duties include project management, business development, and strategic planning for the Sacramento office. He has successfully delivered many local projects, including highway interchanges, railroad grade separations, local roadway widenings, streetscape improvements, and bridge replacement projects.

## NEWS & NOTES

Derek is volunteering time with this semester's Senior Design Project (CE 190) Civil Engineering students. He was also elected and served eight years on the board of the American River Flood Control District. And he volunteers with his wife operating "Wings for Independence," a community service project at the Sacramento International Airport that provides families of children with autism the opportunity to practice taking a flight without ever leaving the airport.

Derek and his wife Megan make their home in Fair Oaks and are expecting their first child this summer.

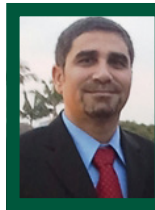


**1993...** Lupe Rodriguez, PE, TE, has worked with the Sacramento County Department of Transportation (SacDOT) for 20 years. He began there as a student in 1991 and was hired on permanently after graduation. During his time with SacDOT, he has been able to work in the Design, Planning and Operations Sections. He is currently a Principal Transportation Engineer and manages the Traffic Engineering and Traffic Operation Sections. Lupe also participated in the Co-Op Program during his time at CSUS, taking a semester off to work for the City of Davis Public Works Department. He is currently involved in the MESA Engineering Program at Sacramento State as a mentor.

Lupe and SacDOT have been working with the CE Department "to bring back our traffic signal system information from our Traffic Operations Center to the CSUS Transportation lab," he says. "This will not only benefit the transportation program on campus, but is also a great way to train the new generation of transportation/traffic engineers."

Lupe played intramural basketball as a CSUS student and still enjoys playing "when I have some time," he says; but with three boys, ages 14, 9 and almost 4, he keeps quite busy.

### Faculty



Dr. Saad Merayyan has been serving as Water Advisor to the Executive Office of the California Department of Food and Agriculture (CDFA) since January 2014.

As part of his duties, Dr. Merayyan will provide scientific, technical and policy analysis and recommendations on water use, quality, storage, transfer and supply reliability issues. He will spend a significant amount of his time with CDFA working on drought issues, groundwater management, and water transfers. "I am excited and honored to be in a position to help CDFA and the state with water resources issues, especially in this difficult time," says Dr. Merayyan.

"It is also a great professional opportunity to be involved with statewide issues at the highest level with an agency like CDFA."

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