

## Your Link to the Department of Civil Engineering

**W**elcome to CE Connection. Another newsletter in your in-box could easily get lost among the masses of information we all are bombarded with daily. But here at Sacramento State's Department of Civil Engineering, we hope our new biannual newsletter, CE Connection, rises to the top of your must-read list.

Why a newsletter? Our goal is to strengthen the connection between faculty, students, alumni and industry supporters of our program. Why now? Because these are exciting, if challenging, times, and we can benefit from working together.

From our perspective within the department, we know we have more students involved with professional organizations and local firms than ever before. We have faculty leading the way with innovative projects, winning grants and recognition. Our department, which set a record for enrollment this year, is undergoing the ABET accreditation process. And we are working harder than ever to connect alumni, industry, faculty and students by holding An Evening with Industry (see story inside) and embarking on a campaign to establish the Ken Kerri endowment fund.

At the same time, our alumni are making their mark in our region, contributing to public and private projects that will become an integral part of the infrastructure around us. Many of our industry supporters are coping with the economy, retooling how they do business and eager to partner with us to turn academic theory into the practical reality of projects on the ground.

In this and future issues of CE Connection, we will be covering achievements, opportunities and other news. We invite you to make CE Connection a two-way street. Read about our student, faculty and alumni activities and let us know what you think. Send us notes about your latest accomplishments so we can share them with others. Simply e-mail us at [ceconnect@ecs.csus.edu](mailto:ceconnect@ecs.csus.edu). We look forward to hearing from you.



**Dr. Ramzi Mahmood, P.E.**  
Department Chair

# SAVE THE DATE

### RSVP NOW

*An Evening with Industry, Nov. 5.*

RSVP to Neysa Bush at:

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

### SAVE THE DATE

Ken Kerri Luncheon, April 14

Check our website in coming months for more information:

[www.ecs.csus.edu/ce](http://www.ecs.csus.edu/ce)

CE CONNECTION





## Evening with AN INDUSTRY

### High-Speed Rail Deputy Director to Speak

A distinguished Sacramento State civil engineering alumna who is Deputy Director of the California High-Speed Rail Authority will be the keynote speaker for the sixth annual *An Evening with Industry*.



**Carrie Pourvahidi**, who was recently honored as Woman of the Year by the Sacramento Chapter of Women in Transportation, will start the evening off with a presentation on the status of the high-speed rail project. She will be followed by a panel of professionals from local engineering agencies and firms who will answer career questions from students. The evening will conclude with a social hour for networking.

The event, which is sponsored by local industry and is open to all civil engineering students, alumni and faculty, will take place from 5 to 8 p.m. on November 5 in the Alumni Center on campus. To RSVP or to inquire about sponsorships, please contact Neysa Bush at 916-278-6982 or [nbush@ecs.csus.edu](mailto:nbush@ecs.csus.edu).

Widely recognized as one of the most valuable events hosted by the Civil Engineering Department, *An Evening with Industry* last year was attended by about 140 students, as well as 40 representatives from more than 20 different companies and agencies.

ASCE students get ready to launch their concrete canoe.



## YOU WANT ME TO BUILD WHAT HOW?

The ASCE competitions are meant to test skills and stretch the imagination. They include:

- Building a 20-foot-long canoe out of concrete according to 76 pages of design specifications and then winning a race.
- Erecting a 20-foot-long scale model of a bridge that can survive load testing and meet criteria that are changed each year.
- Devising a quick, efficient system that can treat and release a 10-gallon mixture of water, clay, leaves, oil, rusted chicken wire, Jell-O, soil, lemon juice, ground beef and creamed corn.



# STUDENT FOCUS

## Students Taking Aim at ASCE Competitions



**B**uilding a concrete canoe that can win a race, designing a steel bridge that can support a heavy load, and creating an effective water treatment system with limited equipment and materials are challenges that draw on the many talents a civil engineer brings to a job.

They also are just plain fun when carried out as a friendly student competition at the American Society of Civil Engineers' annual Mid-Pacific Regional Conference (MidPac) each spring. (In addition to the imaginative projects, the competition also includes the ASCE National Daniel W. Mead Student Contest, an annual 2,000-word essay competition. The most recent question was whether it is ethical to relax design standards to achieve a sustainable design.)

Dan Cloutier, this year's president of the Sacramento State student chapter of ASCE, looks beyond the excitement of the annual conference and sees the opportunity that students have to get involved in their eventual profession when they join ASCE.

"We have more than 200 active members who not only belong to our student chapter, but who are also given membership status in the national organization," he says. "Participating in the conference competitions and in the monthly activities we offer is a gateway for students to network with industry contacts."

Teams are already forming to begin work on the projects that will be showcased at next spring's conference at CSU Chico. Mr. Cloutier would love to see Sacramento State place in the top two in any of the competitions since that would send the team on to the national competition level.

Students gained insight and experience from the 2009 conference in Reno that they hope to apply when they compete in the 2010 competition. Now what is needed, according to Mr. Cloutier, is support from alumni and local industry leaders to mount effective efforts in each of the categories.

In addition to sending teams to compete in the regional conference, the student ASCE chapter holds monthly meetings that regularly draw as many as 80 students to hear local industry leaders talk about projects, career development opportunities and other issues. The chapter also is moving into the job fair business, holding an event this semester that will provide students an opportunity to meet with representatives from local engineering firms.

Students interested in joining ASCE and industry members who want to help teams with the spring competitions can get more information and contact Mr. Cloutier by going to: <http://www.sacstateasce.org>



Above: Dan Cloutier shows off his ASCE award for academic achievement.



# NEWS & NOTES

## Students

**Second Place at Traffic Bowl...** A group of four Sacramento State Civil Engineering students took second place in the Student Traffic Bowl at the 2009 Institute of Transportation Engineers (ITE) Western Regional Annual Meeting in Denver, Colorado in July. CE students Sean DeGuzman, Stephen Nelson, Cephas Hurr, and Jonathan Goodman competed against student teams from nine other universities in the bowl, a Jeopardy-style transportation trivia competition. Dr. Kevan Shafizadeh, the faculty advisor for the ITE Student Chapter, also presented a paper at the meeting co-authored by one of his graduate students, Joseph Horton, who graduated in December.

**Five Honored at ASCE Banquet...** Five students were recognized at the regional ASCE awards banquet on February 25, 2009 for their outstanding contributions to the ASCE student chapter. Kurt Schmiegel and Nicole Weideman Winzenried were both awarded Alfred R. Golze Scholarships. Besides being active participants in the concrete canoe competition, Schmiegel served as the chapter photographer in 2008 and is activities coordinator for 2009, while Weideman Winzenried is the current professional coordinator. Jared Williams won the Professional Service Award for his work as the professional coordinator for the ASCE student chapter in 2008. Daniel Cloutier, the current president of the student chapter and former vice-president, was presented with an Academic Achievement Award. Finally, Joshua Wagner, last year's chapter president, was named as the Outstanding Civil Engineering Student for Region 9, which includes universities and colleges throughout California.

**Transportation Scholarship...** Lindsey Shelton was awarded the \$1,000 Women's Transportation Seminar Sharon D. Banks Memorial Undergraduate Scholarship in December 2008 for excellence in the area of transportation engi-

neering. Shelton, who graduated in May, played an active leadership role in Sacramento State's student chapters of Institute of Transportation Engineers, Engineers Without Borders, and the Engineering Honor Society, Tau Beta Pi.

**Team Wins Structural Design Competition...** A team of Sacramento State Civil Engineering students received \$2,500 as the winners of the 17th Annual Structural Engineers Association of Central California (SEAOCC) student design competition in November 2008. Students designed and built wood truss structures that were then tested for maximum load and vertical deflection. Finally, the teams (Sacramento State, Chico State, and the University of the Pacific) presented their results at the annual SEAOCC Student Night banquet. The team members were Christine Jansen (captain), Zachary Craig, Jesse Ogren, Joel Schaffer and Josh Wagner. Also at the event, CE student Josh Larson received a \$1,000 scholarship in recognition of his outstanding academic and extracurricular record.



CE Students hold their entry for the 2008 SEAOCC Student Competition.

## Alumni

Sacramento State civil engineering alumni are advancing in their careers, chalking up achievements and participating in important projects – and we'd like to share it all with everyone who receives CE Connection. Please let us know about you by contacting us at [ceconnect@ecs.csus.edu](mailto:ceconnect@ecs.csus.edu). Then check out our next issue in the spring to catch up on the latest news.



Students attend a recent ASCE meeting.



## Faculty

**Professor Fell in Japan...** Professor Benjamin Fell attended the largest shake-table experiment in history in Japan this summer with the assistance of a grant from the Network for Earthquake Engineering Simulation (NEES). On July 14, 2009, a seven-story, wood-frame structure was tested on the largest shake table in the world at the Hyogo Earthquake Engineering Research Center in Hyogo, Japan.

**Professor Hansen Wins Teaching Award...** Professor Karen Hansen has been awarded the Associated Schools of Construction (ASC) Far West Region 2009 National Teaching Award. Presented in April, the award recognizes her commitment and dedication to advancing education in construction management. The Far West Region includes universities throughout California, Hawaii, Oregon, and Washington.



Professor Karen Hansen was awarded the ASC Far West Region 2009 National Teaching Award.

# FACULTY



## UP CLOSE



**Professor Benjamin Fell, P.E.**

### **Earthquake Engineering**

Experts predict there is more than a 99 percent chance that an earthquake with a magnitude of 6.7 or greater will occur in California within the next 30 years. Having accepted his first teaching position at Sacramento State last year, Professor Benjamin Fell – whose area of specialization is earthquake engineering – will have a ringside seat when it happens.

He's not sitting around waiting, however. This past summer, he was invited by Stanford University to bring Sacramento State into a consortium of universities applying for a National Science Foundation grant to study the impact of earthquakes on steel structures.

The project was approved, which means Professor Fell will be working closely for the next three years with his counterparts at Stanford, the University of New Hampshire, and SUNY Buffalo.

continued on page 7 ➔



# ALUMNI SPOTLIGHT



## Eddie Kho: Industry Leader Stays Connected

Eddie Kho is as busy as ever these days.

There's the Crocker Art Museum expansion, the Palladio Mall in Folsom, and the Cosumnes River College Station for Sacramento's Regional Transit light rail system – all projects for which he is the principal civil engineer on behalf of Morton & Pitalo, Inc. That's the prominent Sacramento civil engineering firm where he has worked since 1978 and been president and CEO since 2001.

Then there have been the recent honors that have come his way: He was chosen Outstanding Civil Engineer in the Private Sector by the ASCE Sacramento Section, and he was elected statewide Secretary-

Treasurer for the California member organization of the American Council of Engineering Companies (ACEC-CA).

Between his heavy work schedule and industry involvement, most observers might guess Mr. Kho has little time for students. It would be a mistake, however, to overlook his deep commitment to helping the next generation of civil engineers.

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**“ Today, our company has a 25-year history of hiring Sacramento State students...We find them to be very pragmatic and very capable. ”**

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“I know what it was like to work my way through college and what a difference it made to get good professional experience while I was earning my degree,” Mr. Kho says. “The first two years of the civil engineering program can be very difficult for students, so it is important that they get to see past the hard part and understand what the fruits of their labor will be and what kind of exciting projects are in their future.”

Mr. Kho is a distinguished Sacramento State alumnus, earning his bachelor's degree in civil engineering in 1977 and his master's degree in 1985. He has been tapped over the years by Sacramento State for his knowledgeable industry perspective and his ability to help students get a solid foothold as they begin their careers.



## His involvement includes:

- ▶ **Part-time instructor.** He taught lower division courses during the early 80s for several semesters.
- ▶ **Classroom presentations.** Today he drops in as a presenter in a seminar course (CE1A) that helps students understand the different opportunities available to civil engineers.
- ▶ **Department guidance.** He serves as a member of the Dean's Industry Advisory Committee, helping keep the Department's program relevant to today's industry conditions and requirements.
- ▶ **Alumni participation.** He was a board member and officer for the department's alumni chapter for six years and continues to remain involved.
- ▶ **Student assistance.** In addition to serving on the ACEC-CA scholarship foundation board that grants more than \$25,000 in scholarships annually to college students, he also opens the door to internships, part-time jobs, and other career opportunities.

One reason Mr. Kho stays involved is that he sees himself in many of today's students. He never went to school full time, always had a job, and had to juggle numerous responsibilities. Another reason is the practical education he knows Sacramento State delivers. That makes him a continuing and enthusiastic supporter of the program.

"Today, our company has a 25-year history of hiring Sacramento State students," Mr. Kho says. "We find them to be very pragmatic and very capable."



## **Benjamin Fell continued:**

The project, which is funded through the Network for Earthquake Engineering Simulation, is an exciting opportunity as well for Sacramento State undergrads.

"We'll be testing steel frames on the shake table at Buffalo," Professor Fell says. "One of Sacramento State's roles will be to provide summer interns who will travel to Buffalo to participate in the testing."

The work is a natural progression for Professor Fell, who earned his doctorate in civil and environmental engineering at UC Davis in 2008 with a dissertation on fatigue and fractures of steel structures during earthquakes. He completed his master's degree at Stanford and his bachelor's degree at Rensselaer Polytechnic Institute in New York.

Professor Fell knew he wanted to be at a teaching-focused university but was still eager to keep his research contacts in play.

"I interviewed at several places, but it felt like Sacramento State was the best fit in terms of colleagues, the facilities, and the proximity to the earthquake research community in California," he says.

He's been happy with the decision. "The students here have been great," he says. "Many are already working and they bring their experience from part-time jobs and internships into the classroom, which really encourages discussion."

Professor Fell lives in Davis and is an avid swimmer, continuing a sport he enjoyed in both high school and college.



## FACULTY



### UP CLOSE



**Professor Matthew Salveson, P.E.**

#### Computational Mechanics

If during his first year of teaching at Sacramento State last year, Professor Matt Salveson sometimes seemed preoccupied, chalk it up to his intensive focus on getting a finite element computer program written and operational.

“There’s no easy way to do research in my field without a piece of software,” he says, referring to the computational mechanics side of structural engineering. So he has been busy with a difficult task that is somewhat akin – as he puts it – to making your own light saber for Star Wars.

But now the program is ready to roll out and he expects to use it to help students become more involved in how software applications can be used in engineering. He wants to be sure his classes marry the theoretical side of

structural mechanics with the applied engineering reality that many students will face when they take their place in the working world.

It’s a world that Professor Salveson is very familiar with. After getting his bachelor’s and master’s degrees in civil engineering at UC Davis, he worked as an engineering consultant for 17 years. He interspersed work with pursuing his doctorate, first at UC Berkeley and then at UC Davis, where he completed his dissertation in 2007.

Professor Salveson was delighted to join the Sacramento State faculty. “This is an opportunity to spend the rest of my career doing what I regard as direct community service, making a difference for students, in an area I grew up in,” he says. “When you’re a consultant working for a business, there are layers and layers between you and serving the community. Most of those are removed in the teaching profession.”

Professor Salveson lives in Sacramento with his wife, Brenda, his 8-year-old daughter, Linnea, and his 4-year-old son, Tom.

**Attention CE Alumni!** Tell us what you are doing today! We’re looking for updates on past CE Alumni to feature in our next issue of CE Connection. Please contact us with your story at: [ceconnect@ecs.csus.edu](mailto:ceconnect@ecs.csus.edu)

