UCLA Civil & Environmental Engineering

UCLA HENRY SAMUELI SCHOOL OF ENGINEERING AND APPLIED SCIENCE | FALL 2016

By the Numbers

1
U.S. News ranking of UCLA's Master of Science in Engineering online program

0.80
Average annual ratio of Ph.D. graduates to full-time faculty members, 2011-2016

2
Place in ASCE National Concrete Canoe Competition

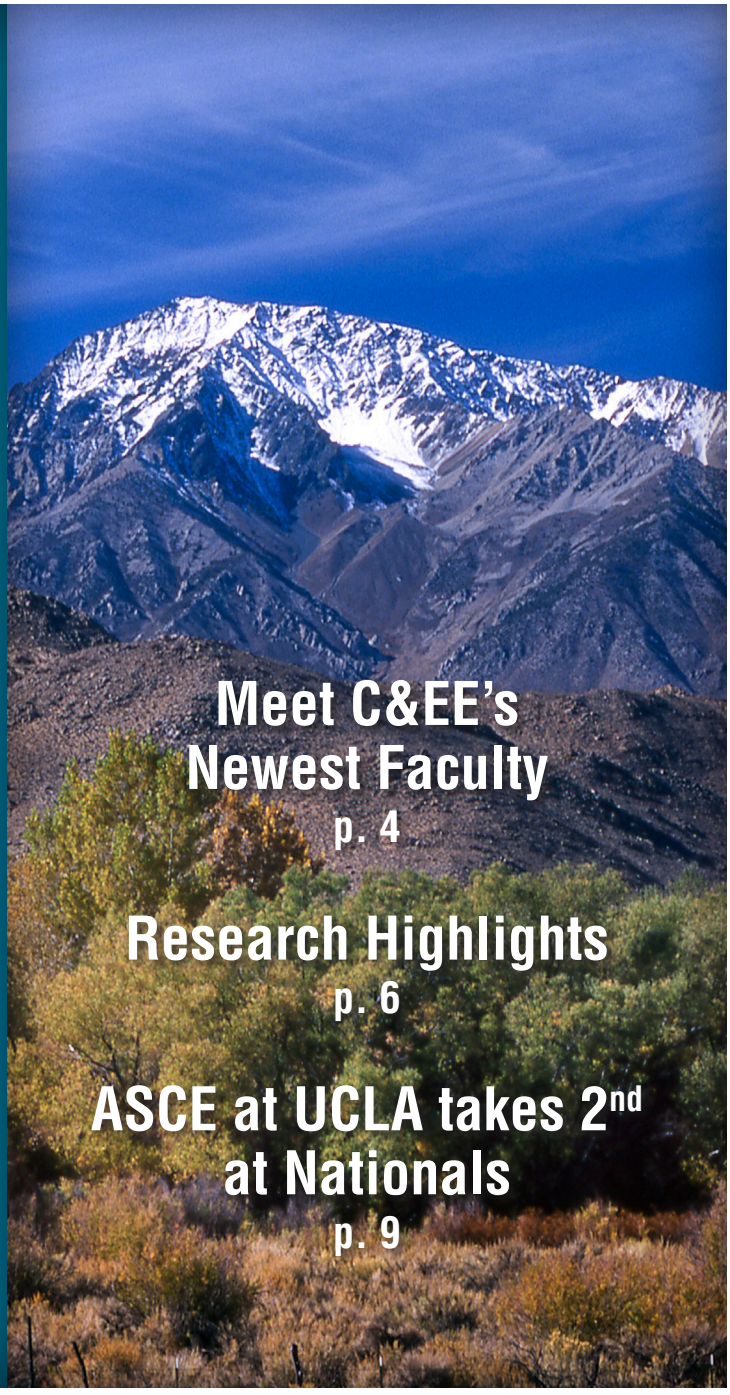
14
Ph.D. graduates placed in faculty positions, 2014-16

4
Affiliated NAE faculty members

0.05
Enrollment-to-applicant ratio, Fall 2016 Freshman class

36
Percentage of female undergraduate students

91
Percent graduation rate UCLA, 6-year, Fall 2015



Meet C&EE's Newest Faculty
p. 4

Research Highlights
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ASCE at UCLA takes 2nd at Nationals
p. 9

Message from the Chair

— PROFESSOR JONATHAN P. STEWART —

Thank you for opening our Fall 2016 newsletter. I will highlight for you some of the happenings in UCLA Civil & Environmental Engineering (CEE) over the past year. We've experienced sorrows and triumphs, but the department has never been stronger nor better positioned for strategic growth and leadership on pressing infrastructure challenges facing California and beyond.

I begin with the tragic loss of one of our own – Professor Bill Klug in the Mechanical and Aerospace Engineering Department, who was a UCLA CEE alumnus (MS '99). His murder in June shook us deeply. I comment further on Bill and that horrible day in a short piece below.

Three outstanding new faculty have joined us. Coming as Assistant Professors are Timu Gallien (urban coastal flood protection, coastal hazards) and Sanjay Mohanty (water quality, sustainability). Distinguished Professor Ali Mosleh joins us through joint appointment with Materials Science and Engineering. Professor Mosleh is the director of the B. John Garrick Institute for the Risk Sciences and is among the top risk engineering experts in the nation. He is a member of the National Academy of Engineering.

We bid a fond farewell to Professor Keith Stolzenbach, who retired in July 2016. Keith served with distinction for 24 years, being among our most popular teachers and a world-renowned researcher in Environmental Engineering. Keith, the faculty and generations of students thank you for your dedication to excellence in teaching, research, and service. You will be missed.

The creativity, innovation, and output of our research enterprise continue to grow and gain increasing recognition. Many faculty and students have received major awards, as highlighted below. A common denominator to the research happening here is relevance and consequentiality. We focus on developing innovative and creative solutions to the complex, multi-faceted problems of our age, including effects of climate change and global warming on our water supply, earthquake risk to our dams, levees, and buildings, and developing next generation building materials that enhance sustainability and reduce greenhouse gas emissions. A few highlights are provided below.

Our undergraduate students had an exceptional year. The ASCE student chapter placed first in the highly competitive Pacific Southwest Conference, and went on to place second in the national concrete canoe competition. They were also, once again, named the distinguished student chapter for ASCE Region 9.

Admission to our department remains extremely competitive, with 1447 seeking Freshman admission and 81 enrolling for Fall 2016. The students making the cut represent diverse populations, including 42% from traditionally under-represented minority populations in engineering. Moreover, 40% of our undergraduate students, and 36% of our doctoral students are women, both approximately 70% above national averages. We take pride in the excellence and diversity of our students.

Please read on. Go Bruins!

Jonathan P. Stewart, Ph.D., P.E.
Professor and Chair

William S. Klug, 1976-2016

The UCLA community was devastated by the loss of Bill Klug on June 1, 2016. Many CEE students took courses with Professor Klug, including an introductory programming course he co-developed with Professor Jeff Eldredge in the Mechanical and Aerospace Engineering Department and CEE Professor Ertugrul Taciroglu. He also served on thesis committees for many of our doctoral students, several of whom contacted me with warm recollections of Bill's brilliant technical contributions and kind, student-first approach. Bill and his wife Mary Elise were students in our department, receiving MS degrees in Structural Engineering / Mechanics in 1999. Bill went on to receive his Ph.D. from Caltech in 2003, after which he joined the engineering faculty at UCLA.

Many of our students, staff, and faculty were present at the time of the shooting on June 1, although in a different building. The events were traumatic, to say the least, and a recovery process has been underway in the weeks since. We in engineering were heartened by the strong support provided by the broader campus community.

Bill's contributions will live on through his publications, students, and family. He will not be forgotten. The campus is accepting donations to benefit his family here: http://giveto.ucla.edu/fund/klug-family-support-fund/.

— AWARDS —

Civil Engineering Professor Wins Distinguished Teaching Award

Professor Steve Margulis is among six faculty across UCLA who received the 2016 UCLA Distinguished Teaching Award. The award recognizes extraordinary teachers who have made a significant impact on their students through classroom teaching and curriculum development. Dr. Margulis, who joined C&EE in 2002, teaches undergraduate and graduate classes on hydrology and numerical modeling. Over several quarters teaching an introductory hydrology course, Dr. Margulis did not find a textbook that perfectly fit the course. "I tried many things, including using ones that didn't quite fit what I wanted to cover and ones that could be used as a reference across multiple courses," he said. "All of this was in the context of rising textbook prices." Spurred by those issues, and a desire to experiment with new ideas of what a textbook should provide, he created a free, open-access electronic textbook, which contains multi-media material and modeling tools in addition to covering course topics. In offering the textbook publicly, colleagues at many other universities have adopted the book for their courses. ■

Major Faculty Awards and Honors

Assistant Professor Mathieu Bauchy received Corning Inc. Glass Age funding to support graduate student research in the area of glass and glass-ceramics.

Assistant Professor Henry Burton received NSF Career Award to advance his research in increasing the resilience of the next generation of buildings in response to natural hazards while simultaneously incorporating sustainable practices in their construction, maintenance and operation. Dr. Burton has also been named the inaugural holder of the Englekirk Presidential Chair in Structural Engineering for UCLA Henry Samueli School of Engineering and Applied Science.

Professor Eric M. V. Hoek was appointed Editor-in-Chief of Clean Water, a new Nature Publishing Group journal. The open-access journal is dedicated to solving the global challenge of ensuring clean water supplies.

Professor Jiann-Wen 'Woody' Ju was appointed as Editor-in-Chief of the International Journal of Damage Mechanics, an international journal in the fields of damage mechanics, fracture mechanics and failure mechanics.

Associate Professor Gaurav Sant received the American Concrete Institute Foundation's 2016 Jean-Claude Roumain Innovation Award in recognition for his work in how mineral fillers and supplementary cementing materials influence cement hydration rates, and, for his work on the development of carbon-dioxide neutral cement.

Professor Jonathan Stewart gave the 2016 William B. Joyner Memorial Lecture at the Annual meetings of the Earthquake Engineering Research Institute and the Seismological Society of America. The Joyner Lecture was awarded for his research in the characterization of earthquake ground motions for engineering applications, with special emphasis on site response effects. ■

FACULTY

NEW FACULTY

Timu Gallien, Assistant Professor

Dr. Gallien joins C&EE in 2016-17. Previously, she was a Postdoctoral Scholar at the Scripps Institution of Oceanography at the University of California San Diego. Dr. Gallien received her B.S. (1996) and M.S. (2008) from Purdue University in Agricultural Engineering and Agricultural and Biological Engineering respectively and her Ph.D. (2012) from University of California Irvine in Civil Engineering. At Scripps, Dr. Gallien developed integrated hydrodynamic coastal flood prediction methodologies responsive to beach dynamics, permanent and temporary flood control infrastructure, tides, surge, waves, sea level rise and ground water. Dr. Gallien's research interests include urban coastal flood prediction, wave run-up and overtopping, coastal hazards, sea rise level, flood control infrastructure and mitigation methods, nearshore remote sensing and observation, beach morphodynamics and groundwater, and integrated upland-coastal modeling.

Sanjay Mohanty, Assistant Professor

Dr. Mohanty joins C&EE in 2016-17. Previously he was a Postdoctoral scholar at the University of Pennsylvania and Stanford University, in their Civil and Environmental Engineering departments. Dr. Mohanty received a B.S. (2000) and M.Sc. (2002) in Physics from Utkal University. He received a M.S. (2006) in Civil Engineering from the University of Hawaii, Manoa and Ph.D. (2011) in Environmental Engineering from the University of Colorado, Boulder. Dr. Mohanty's research interests include the effect of climate change on water quality and quantity, sustainable urban development at the water-energy nexus, transport of contaminants and colloids in the subsurface and groundwater, stormwater capture, treatment and reuse, and bioremediation.

Ali Mosleh, Distinguished Professor and Evelyn Knight Chair in Engineering

Dr. Mosleh joins C&EE through a joint appointment with Materials Science and Engineering in 2016-17. Previously, he was the Nicole J. Kim Eminent Professor of Engineering and Director of the Center for Risk and Reliability at the University of Maryland. He was elected to the US National Academy of Engineering in 2010, and is a Fellow of the Society for Risk Analysis and the American Nuclear Society. He is a recipient of several scientific achievement awards, and has been a consultant and technical advisor to numerous national and international organizations, including the U.S. Nuclear Waste Technical Review Board (appointment by President George W. Bush and continued by President Obama). He conducts research on methods for probabilistic risk analysis and reliability of complex systems and has made many contributions in diverse fields of theory and application.

RETIRING FACULTY

Keith Stolzenbach, Professor Emeritus

Professor Stolzenbach retired in July 2016 from C&EE after 24 years of exemplary service to the UCLA academic community. Prior to UCLA, Dr. Stolzenbach worked as a Research Engineer for Tennessee Valley Authority, Professor at MIT, and Visiting Researcher at CalTech. Dr. Stolzenbach received numerous awards during his academic career including the ASCE Stevens Award, ASCE Huber Research Award, and UCLA Academic Senate Distinguished Teaching Award. His research investigates how water movement in natural water bodies affects the fate and transport of pollutants and natural substances, interaction between fluid motion and chemical and biological processes, and coastal water quality issues. Dr. Stolzenbach will continue as a Professor Emeritus for Civil and Environmental Engineering while he pursues a M.Ed. in the UCLA Urban Teacher Residency Program.

STUDENT EXPERIENCE

UCLA IS A POPULAR DESTINATION FOR VISITING STUDENT RESEARCHERS

UCLA Partners with Morgan State University for Summer Research Program

Two undergraduate students from Morgan State University, Evely Macedo and Kofi Afriyie, spent 8 weeks at UCLA conducting independent research under the mentorship of Dr. Henry V. Burton, graduate students and other faculty in the UCLA C&EE department. Evely's research focused on controlled rocking braced frames, which can localize damage caused by earthquakes to easily replaceable parts limiting overall building damage and repairs. Kofi's research looked at the spatial correlation of Engineering Demand Parameters of tall reinforced concrete buildings shaken by strong earthquakes. Both students presented results at a university-wide poster session.

C&EE Welcomes Local High School Researchers into the Lab

UCLA HSSEAS in conjunction with the Engineering Science Corps Outreach Program offer a High School Summer Research Program (HSSRP) to encourage high school participants to consider a future in engineering. Brandon David and Claire Zeller spent the summer with the Geotechnical Engineering PhD Candidate, Mandro Eslami, obtaining valuable research experience in a lab environment. The students conducted experiments in the laboratory, interpreted the results, and presented their findings in a scientific poster.

CURRICULUM EXPANSION WITH INDUSTRY PARTNERS

Structural Engineering Seminar Course with Robert. E. Englekirk

Structural Engineering has seen a rapid evolution this last half-century. To accommodate this transition, we must reshape the engineering graduates we produce. Our next generation engineers must rationally consider issues, filter available research, and design procedures and construction processes to produce a superior product. Their curiosity must drive them to excellence and avoid obsolescence. Students investigate complex problems on an individual basis using the comments and encouragement of faculty and professional mentors.

New Course in Construction Management

Responding to student and industry demand, C&EE will offer "Introduction to Construction Management" for the first time in Winter 2017. Instructors will be Peter Cotugno, a Project Executive at W.E. O'Neil Construction, and Michael Wratschko, Assistant Project Manager at Hathaway Dinwiddie. The course will introduce construction engineering theory, management, and techniques. Students will perform exercises from academic texts and drawing upon examples from real project case studies.

LEARNING EXTENDS BEYOND THE CLASSROOM

C&EE 157L: Hydrologic Analysis

Students learn from USGS hydrologists how to measure river discharge and see how stream velocity is measured using mechanical current meters and acoustic dobbler current profilers.

C&EE 121: Design Foundations and Earth Structures

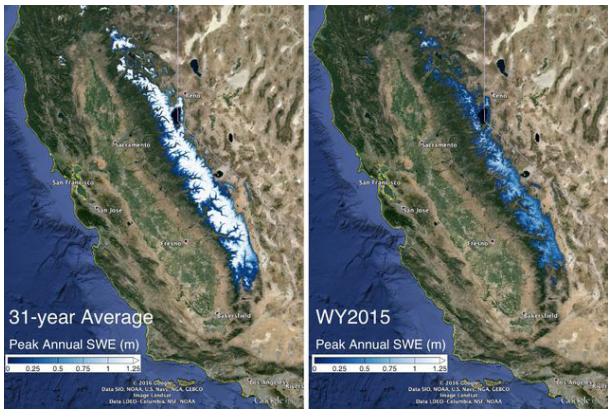
Students visited the Crenshaw/Martin Luther King subway station construction site on MTA's Crenshaw/LAX transit project to learn about tunneling, deep excavation and retaining structures.

GEOTECHNICAL PH.D. STUDENTS CONDUCT RESEARCH IN JAPAN

During Summer 2016, Geotechnical Engineering Ph.D. students Sean Ahdi and Yi Tyan Tsai, along with UCLA Adjunct Professor Robert Kayen, performed site characterization for levees along two major rivers in Hokkaido, Japan. Levees are earthen embankments typically constructed for flood protection purposes, and can be susceptible to damage during earthquakes. The team employed multiple field geophysical methods to characterize subsurface conditions. The research project is funded by the CA Department of Water Resources (PIs Jonathan Stewart and Scott Brandenberg). ■

RESEARCH HIGHLIGHTS

Please refer to faculty profiles at http://www.cee.ucla.edu/ for further information on these and other exciting research projects by CEE@UCLA students and faculty

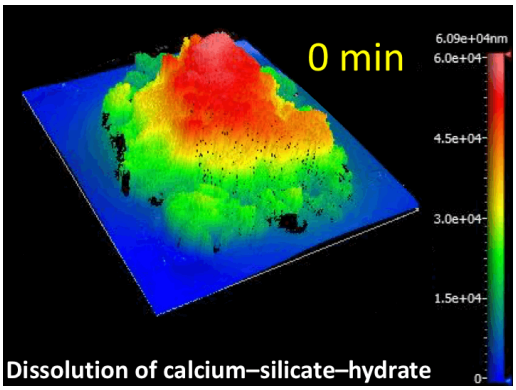


Professor Steve Margulis Leads Research Analyzing Drought Impact on Sierra Nevada Snowpack

Even with this winter's strong El Niño, the Sierra Nevada snowpack deficit will likely take until 2019 to return to pre-drought levels. Dr. Margulis led research to develop a new method providing unprecedented detail and precision in characterizing water in the mountain snowpacks, even when on-site monitoring is limited. The California winter of 2015 capped four consecutive years of drought that resulted in the largest cumulative drought deficit in 65 years. The researchers created a dataset using measurements from NASA Landsat satellites between 1985 and 2015, which provide daily high-resolution maps of Sierra snowpack. The goal is to build a detailed, continuous picture of the historical snowpack, to then diagnose primary factors of variation, and ultimately improve predictive models of water availability. This can help policy makers make better informed decisions when considering this critical resource, especially as climate change affects it. The research was supported by NASA and NSF.

Assistant Professor Mathieu Bauchy and Associate Professor Gaurav Sant Lead Research in Long-Term Materials' Deformations

Although solid to the eye, many materials "flow." For instance, the N. American tectonic plate is moving to the west at an average speed of 1 inch/ year. Although this may seem like slow motion, it has major impacts over geologic time scales. Similarly, concrete and glasses tend to flow over years. In concrete, this manifests through creep deflections, which can compromise the integrity of high-rise buildings or long-span bridges. In glasses, this can result in volume relaxation, which can induce undesirable pixel misalignments in large LCD or OLED screens.



In recent publications, Bauchy and Sant elucidate the physical mechanisms of glass relaxation and concrete creep. They identified unexpected strong analogies between the relaxation behaviors of industrial glasses and cementitious phases. These discoveries can facilitate the design of novel materials featuring high resistance to creep/relaxation. These qualities are critical in applications of high yet thin infrastructure and large high-resolution TV screens.

Associate Professor Scott Brandenberg and Professor Jonathan Stewart Develop Procedure for Computing Seismic Reliability of Levee Systems.

Levee systems are like a chain; their stability is controlled by the weakest link. Their reliability analysis amounts to computing the probability that a breach will occur, at any particular segment, in the system. Seismic demands, and the capacity of levee segments to resist those demands, are spatially variable and correlated. Previous studies of reliability have not addressed spatial variability and correlation in an appropriate manner. A post-doctoral scholar, Dong Youp Kwak, and

Professors Jonathan Stewart and Scott Brandenberg recently developed a procedure to compute levee system reliability. This work will have significant impact on ongoing seismic risk assessments in the Sacramento / San Joaquin Delta, the hub of California's water distribution system. This research was supported by the CA Department of Water Resources.

Professor Jennifer Jay establishes Center for Environmental Research and Community Engagement (CERCE)

Numerous communities in L.A. County have legitimate concerns for residential and environmental exposure to nearby toxic sites, highways, airports, and contaminated groundwater. Many of these communities are underserved and unable to fund the testing and research needed to provide them with essential information pertaining to environmental safety. CERCE was established to increase the connections between UCLA and the community. The center helps faculty and students identify relevant and timely projects that enhance human health and the environment. The results gathered by CERCE, will be presented to affected communities and regulatory agencies with responsibility for remediating contamination in soil, water or air.

Through CERCE, Professor Jay's lab is currently measuring lead (Pb) levels in soil and sand collected from public parks in L.A. Based on the characterization of the Office of Environmental Health Hazard Assessment's EnviroScreen maps, they are testing in neighborhoods with very high and low pollution burdens.

Associate Professor Shaily Mahendra's Research Reveals a Cornerstone Obstacle to the Biological Treatment of Contaminated Groundwater

A recent publication in Environmental Science and Technology illustrated the impacts of environmental co-contaminant mixtures on bioremediation of 1,4-dioxane, a probable human carcinogen and an important water pollutant.

Using a systematic approach, the research team identified that individual solvents inhibited biodegradation of 1,4-dioxane in the following order: 1,1-dichloroethene (1,1-DCE) > cis-1,2-diochloroethene (cDCE) > trichloroethene (TCE) > 1,1,1-trichloroethane (TCA). Delayed energy production (e.g. ATP) in 1,4-dioxane degrading bacteria contributed to the inhibition mechanisms of chlorinated solvents. Moreover, the expression of key genes encoding enzymes were suppressed in the presence of chlorinated solvents. In situ biological treatment is being considered for remediating widespread dilute groundwater plumes. These results provide an immediate guidance for selecting appropriate remediation strategies to treat contaminant mixtures. This research was supported by the Strategic Environmental Research and Development Program (ER-2300), NSF, and UCLA C&EE. ■

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STUDENTS AWARDS AND HONORS

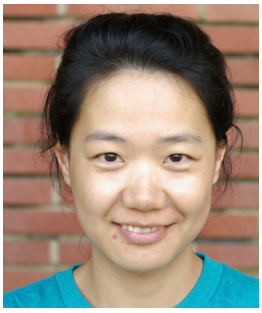
SEAN AHDI, a Ph.D. student in Geotechnical Engineering, has been elected Chair of the Executive Board of the Student Leadership Council (SLC) of the Geo-Institute (G-I) of ASCE. Sean will organize and lead student representatives from around the country in initiatives to promote the geotechnical profession and get students involved in the G-I. Sean will also work closely with the G-I Student Participation Committee in organizing and running student events at the G-I's annual GeoCongress, and with the G-I Board of Governors to advocate for student welfare and welcome new university chapters to the SLC.

VICTOR CONTRERAS, a M.S. student, will participate in a major global project in engineering seismology known as NGA-Subduction being coordinated by the PEER center and numerous partnering institutions. This project will define a new state of the art in earthquake ground motion prediction for subduction zone earthquakes. Data from Victor's home country of Chile will be utilized in this project, including data from the 2010 M8.8 Maule, Chile earthquake. The Chilean National Commission for Scientific and Technological Research (Comisión Nacional de Ciencia y Tecnología, or CONICYT), awarded Victor a scholarship to complete a graduate degree at UCLA. CONICYT is a funding agency of the Chilean government tasked with strengthening the country's scientific and technological base and developing human capital in those fields.

ALEXANDRA POLASKO, a Ph.D. student in Environmental Engineering, received the New England Biolabs Passion in Science 2016 award for Environmental Stewardship and the Women in Leadership Fellowship from Brown and Caldwell, an environmental consulting firm. Alexandra is also the recipient of the Cota Robles Fellowship, Len Assante Scholarship, Malcom R. Stacey Memorial Scholarship, and the National Science Foundation honorable mention.

YI TYAN TSAI, Ph.D. Candidate in Geotechnical Engineering, won the 2016 Association of State Dam Safety Officials (ASDSO) Student Paper Competition. Yi Tyan will present her topic, "Earthquake ground motion characterization for levee sites founded on peat", at Dam Safety 2016. Her paper will also be published in the annual conference proceedings. This is the 8th annual student paper competition which called for students to submit topics on dam and levee safety. ASDSO is a national non-profit organization serving state dam safety programs and the broader dam safety community.

MENG WANG, a Ph.D. Candidate in Environmental Engineering, was awarded a Certificate of Merit from the Division of Environmental Chemistry of the American Chemical Society (ACS) for his presentation at the 251st ACS National meeting. Under the direction of Associate Professor Shaily Mahendra, Meng presented research on a way to improve bioremediation enzymes by encapsulating them in a protein cage. This award recognizes ENVR division members who are making their first presentation at a national ACS meeting. Meng's presentation was "judged to be of high quality in both intellectual merit and presentation style."



SHU ZHANG, a Ph.D. Candidate in Environmental Engineering, received the California Association of Sanitation Agencies (CASA) Education Foundation Scholarship for her research on environmental pollution control technologies. She was also awarded the Certificate of Merit for her oral presentation at the 251st American Chemical Society National Meeting in March 2016. ■

STUDENT GROUPS

ASCE at UCLA wins 2nd place at the ASCE National Competition for Concrete Canoe.

American Society of Civil Engineers (ASCE)

President: Suraj Patel | http://ascebruins.org/

ASCE at UCLA is home to many projects and activities including: ASC 67, Concrete Canoe, Concrete Sports, Environmental Design, GeoWall, Seismic Design, Seismic Outreach, Steel Bridge, and Surveying. All of these projects give students the opportunity to gain hands on experience in various civil engineering fields and to interact with other students to facilitate the development of leadership and teamwork skills. ASCE projects encapsulate many aspects of civil engineering and are invaluable for students who can use these projects to apply their knowledge and skills outside of the classroom. ASCE also offers activities to further the academic, professional, and social development of its members including company information sessions, career fairs, academic workshops, and social activities.

Congratulations to ASCE at UCLA for their recent accomplishments: 2nd place at the ASCE National Competition for Concrete Canoe, 1st place at the Pacific Southwest Conference, and Distinguished Chapter of the Year for Region 9.

Calif. Geotechnical Engineering Assoc. (CalGeo)

President: Samantha Hangsan | http://calgeobruins.org/

CalGeo received the 2016 Rising Star Award from the California Geotechnical Engineering Association for their extensive and varying events such as an elementary school science slam. CalGeo operated three demonstrations including liquefaction of sandy soils and its effect on buildings; a shake table to demonstrate earthquake effects on different types of K-nex "buildings", and a water filtration system that removed both coarse and dissolved impurities, yielding clean water.

Earthquake Engineering Research Institute (EERI)

President: Yi Tyan Tsai | Email: tsaiyityan@gmail.com

EERI fuels the conversation among earthquake engineering researchers by hosting weekly roundtables, sponsored by Dr. Burton, where a short presentation on current research is followed by lively discussion over catered lunch. A range of presenters, from undergraduates to post-doctoral scholars, covered important topics ranging from earthquake ground motion characterization to new advancements in reinforcement material in construction.

Engineers Without Borders (EWB)

- https://sites.google.com/site/ewbucla/
- EWB supports community-driven development programs worldwide.

Society of Women in Engineering (SWE)

- http://www.seas.ucla.edu/swe/
- SWE is a not-for-profit educational and service organization that empowers women to succeed and advance in the field of engineering.

Institute of Transportation Engineers (ITE)

- https://iteucla.wordpress.com/
- ITE is an international educational and scientific association of transportation professionals.

Chi Epsilon (XE)

- https://sites.google.com/site/chiepsilonatucla/
- XE is a national civil engineering honor society.

Tau Beta Pi (TBP)

- http://engineering.ucla.edu/student-clubs/
- TPB is a national engineering honor society.

C&EE PhD Graduates Fall 2015-Summer 2016

Shawn Shahriar Ariannia
Advisor: Scott J. Brandenberg
Determination of p-y Curves by Direct Use of Cone Penetration Test (CPT) Data

Gonzolo Cristian Cortes Soruco
Advisor: Steven A. Margulis
Gaining insight into Andean snowpack climatology and changeusing a snow reanalysis approach applied over the Landsat satellite record

Elnaz Esmaeilzadeh Seylabi
Advisor: Ertugrul Taciroglu
Reduced order modeling of soil structure interaction problems

Bahareh Heidarzadeh
Advisors: Jonathan P. Stewart and George Mylonakis
Dynamic Stresses in Foundation Soils from Soil-Structure Interaction

Sofia Gavridou
Advisor: John W. Wallace
Shake Table Testing and Analytical Modeling of a Full-Scale, Four-Story Unbonded Post-Tensioned Concrete Wall Building

Dukwoo Jun
Advisor: Eric M.V. Hoek
Mechanisms of biofoulant-membrane interactions for ultrafiltration and microfiltration membranes

Sunai Kim
Advisor: John W. Wallace
Reliability of Structural Wall Shear Design for Tall Reinforced Concrete Core Wall Buildings

Ben Li
Advisor: Michael K. Stenstrom
One-Dimensional Modeling of Secondary Settling Tanks

Zhongtian Li
Advisor: Michael K. Stenstrom
Study of Particle Size Distribution in Activated Sludge Processes: Impacts of Solids Retention Time and Process Configurations

Mahdi Navari
Advisor: Steven A. Margulis
Improving a Priori Regional Climate Model Estimates of Greenland Ice Sheet Surface Mass Loss Through Assimilation of Measured Ice Surface Temperatures

Seyedali Nojoumi
Advisor: Ertugrul Taciroglu
Modeling the Coupled Cyclic Translational and Rotational Responses of Skew Bridge Abutment Backfills

Guillermo Puerta Falla
Advisor: Gaurav Sant
Reactive Limestone as a Strategy Towards Low-Clinker Factor Cements

Ali Shafiee
Advisors: Scott J. Brandenberg and Jonathan P. Stewart)
Cyclic and Post-Cyclic Behavior of Sherman Island Peat

Benjamin Turner
Advisor: Scott J. Brandenberg
Kinematic Pile-Soil Interaction in Liquefied and Nonliquefied Ground

Samuel Yniesta
Advisor: Scott J. Brandenberg
Constitutive Modeling of Peat in Dynamic Simulations

Faculty Positions/Promotions Obtained by PhD Graduates and Postdoctoral Scholars 2014-16

Kamil Bekir Afacan, Ph.D., '14
Advisor: Scott Brandenberg

Richard Gash, Ph.D., '15
Advisor: Ertugrul Taciroglu

Nalinkanth Ghone, Postdoc, 2008-09
Advisor: Eric M.V. Hoek

Kristijan Kolozvari, Ph.D., '13
Advisor: John W. Wallace

Aditya Kumar, Postdoc, 2012-15
Advisor: Gaurav Sant

Mary Laura Lind, Postdoc, 2008-10
Advisor: Eric M.V. Hoek

Sonya Lopez, Ph.D., '12
Advisor: Terry Hogue

Sami Maalouf, Ph.D., '14
Advisor: William W-G. Yeh

Seyedali Nojoumi, Ph.D., '16
Advisor: Ertugrul Taciroglu

Peerapong Pornwongthong, Ph.D., '14
Advisor: Shaily Mahendra

Thien Tran, Ph.D., '12
Advisor: John W. Wallace

Eric Yee, Ph.D., '11
Advisor: Jonathan P. Stewart

Samuel Yniesta, Ph.D., '16
Advisor: Scott J. Brandenberg

Tadeh Zirakian, Ph.D., '13
Advisor: Jian Zhang

CORPORATE SPONSOR HIGHLIGHTS

Geosyntec consultants

- Jennifer L. Donahue, Associate, presented "Civil Engineers Have All the Power" to our Freshman seminar class.
- Tasha Kamegai-Karadi, Project Engineer, and Rula Deeb, Senior Principal, presented an information session to the Society of Women Engineers on the cross-media fate and transport of contaminants and the remediation of complex soil and groundwater sites impacted by non-aqueous phase liquids.

kpff

- Jan Douglas, Associate, continues to serve on the CEE Industrial Advisory Board.
- Mark Hershberg, Principal, taught C&EE 141: Structural Systems Design.

Turner

- Undergraduate student Suraj Patel interned with Turner at the Transbay Transit Center in downtown San Francisco.

W·E·O'NEIL

- Brad Fry, Director of Personnel Development, provided input on the formation of a construction management course for undergraduate students, to be offered for the first time in 2016-2017.

C&EE Partners Program

Introducing UCLA C&EE's newest Partner: US Army Corps of Engineers

- The C&EE Partners program has been expanded to the public sector with the addition of the US Army Corps of Engineers (USACE). We are excited to welcome USACE participation in department activities, including field trips, job fairs, seminars, and classroom exercises. Charles Dwyer, Chief of Navigation and Coastal Projects Branch will serve as the USACE liaison to our Industrial Advisory Board.

See back page for program overview

IAB

The Industry Advisory Board (IAB) met with the CEE faculty and students on May 20, 2016 to provide a critical review of the recently developed C&EE strategic plan. This review included confidential meetings with constituents, including faculty of various ranks, graduate students, undergraduate students, and staff. IAB input will assist in further developing the department strategic plan and operational procedures. Read more here: *http://www.cee.ucla.edu/industry/.*

Pictured above from left: Jon Wren (Exponent), Christopher T. Stern (Trimble), Marshall Lew (AMEC), David Selna (Morley Builders), Jonathan Stewart (UCLA), Thomas A. Sabol (Englekirk, UCLA), Thierry Sanglerat (Geosyntec), Travis Deane (Shannon & Wilson, Inc.), Soroosh Sorooshian (UC Irvine), Mike Stenstrom (UCLA). Not pictured: Nicole Blute (Hazen & Sawyer), Sarah Brandenberg (Fehr and Peers), Lewis Corniell (AECOM), Marshall Davert (MWH Global), Jan Dougalas (KPFF), Ron Eguchi (ImageCat), Brad Fry (W.E. O'Neil), Dennis Lundquist (FPM Remediations).

Career Fair

At UCLA C&EE, companies recruit from some of the brightest undergraduate and graduate students in the nation. C&EE consistently produces top engineers with strong technical backgrounds and leadership experience. ASCE at UCLA student chapter hosts two C&EE Career Fairs every year. The career fairs attract more than 300 undergraduate, graduate and post-graduate C&EE students.

http://www.ascebruins.org/career-fair.htm

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BASF, Master Builders Solutions
Battelle
Bernards
BKF
BNBuilders
CH2M
Clark Construction Group
Degenkolb Engineers
DPR Construction
E2 Consulting Engineers, Inc.
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Fehr & Peers
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Shannon & Wilson, Inc.
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