

2014 Volume 18



From the Department Head

Dear Alumni and Friends:

I'm writing to you in my new capacity as the head of the Department of Civil and Environmental Engineering. I've been a member of the CEE faculty here for 27 years, and I'm honored and privileged to serve as the 15th head of the CEE Department. Our Department has a long and storied history, starting with Dr. Elwood Mead as the first Department head in 1883 (Lake Mead behind Hoover Dam is named in his honor), and continuing to the present day.



Our undergraduate program remains strong with more than 420 students, and both our civil engineering and environmental engineering undergraduate degree programs were accredited again this past summer by ABET. The Department currently includes 31 faculty, and we are looking to hire as many as four new faculty starting this fall. Our faculty and outstanding research staff are involved in significant research activity, as evidenced by research expenditures exceeding \$10 million this past fiscal year and an associated strong graduate program with more than 280 students. As noted in this newsletter, our faculty and research staff continue to be recognized nationally and internationally for their research, teaching, and professional service, and as leaders in their respective fields. Their combined expertise positions the Department well for addressing many of the current and future pressing issues related to civil and environmental engineering, including infrastructure resiliency and sustainability, water, energy, and the environment.

We appreciate all of your support, and encourage you to stay connected with us. We also encourage you to visit us, especially if you have not been in the Choice City for a while, as a lot has changed on campus and the community over the past 27 years.

Charles D. Shackelford

CEE Leads EPA Center on Efforts to Improve Water Quality

The Department was designated as one of four research groups to receive funding for an EPA Science to Achieve Results grant to advance innovative and sustainable water research by managing harmful nutrient pollution. The selection was announced in January 2014 at the 14th National Conference and Global Forum on Science, Policy and the Environment in Washington, D.C. These STAR grants are an integral part of EPA's research on water quality and availability. Improving existing water infrastructure is costly, which makes creating new and sustainable approaches to water use, reuse, and nutrient management important. The grants support sustainable water research and demonstration projects consistent with a comprehensive strategy for managing nutrients and active community engagement throughout the research process.

When excessive nitrogen and phosphorus enter our waterways – usually via stormwater runoff and industrial activi-



Modifications to existing treatment process provide cost-effective nitrogen and phosphorous removal.

ties – our water can become polluted. Nutrient pollution has impacted many streams, rivers, lakes, bays, and coastal waters for the past several decades, resulting in serious environmental and health issues, and negatively impacting the economy.

The Center for Comprehensive, Optimal and Effective Abatement of Nutrients has a general goal to demonstrate sustainable solutions for reduction of nutrient pollution in the nation's waterways. The principal investigator is Dr. Mazdak Arabi of the CEE department. Researchers from several departments at Colorado State University and companion universities at University of Colorado and North Carolina State University will use the EPA grant to lead a multi-stakeholder effort to study and control the sources of excess nutrients in wastewater, stormwater, agricultural water, and natural systems. Key areas of research include: wastewater treatment technologies; water reuse systems; urban stormwater management; agricultural conservation; socioeconomic incentives; nutrient trading; and water rights.



End of field monitoring of cropping systems.

Faculty News

Dr. Sybil Sharvelle was selected by the National Academy of Engineers to participate in the Frontiers of Engineering Education Symposium held Oct. 26-29, 2014,



at the NAE Beckman Center in Irvine, Calif. This symposium recognizes the nation's brightest young engineers (ages 30-45) who are performing exceptional engineering research and technical work in a variety of disciplines, and provides the opportunity for the participants to create interdisciplinary relationships that will shape and advance the future.

Researchers Monitor Groundwater Quality at Oil and Gas Sites

As principal investigator for the Center for Energy Water Sustainability, Dr. Ken Carlson and his research team have developed an on-site monitoring system to analyze groundwater quality at oil and gas sites in real time. As of this date, four monitoring stations have been installed. Three of the stations are located next to active oil and gas wells throughout the Denver-Julesburg Basin. The fourth station is a control site at CSU's Agricultural Research, Development, and Education Center near Wellington, Colo.

Sensors are placed at varying depths to collect information on water sources. As the water flows through the sensors, data is collected and then sent to CSU's server. Not only does the system monitor the water quality, it also acts as an early detection system alerting to any anomaly or major change. When alerted, a team member can visit the site, take a water sample, and send it to the EPA lab for analysis. The results of the analysis then allow the researchers to identify the source of the contamination, whether oil- or gas-related, or due to other causes, such as agriculture.

Not only is this monitoring-system a valuable safety mechanism, but the information is posted on the Colorado Water Watch website to provide the public with a more transparent and more complete reporting of groundwater quality in oil and gas sites. This is the first monitoring and reporting system using real-time data in the U.S.



Dr. Ken Carlson with Asma Hanif, research associate, and Jihee Son, post-doctoral student, check on a monitoring station.

Dr. Jeff Niemann is part of a team that was awarded a \$1 million Small Business Innovative Research Phase II grant. The team includes Technology Service Corp., based in Maryland, and Colorado State University. At CSU, the team includes both Dr. Niemann from the Department of Civil and Environmental Engineering and Dr. Andy Jones from the Cooperative Institute for Research in the Atmosphere. The grant is funded by the U.S. Army through the SBIR program. The purpose of the grant is to develop a commercial software package that estimates soil moisture patterns at spatial resolutions that are required for various Army and commercial applications, such as vehicle mobility, sustainable land management, agricultural production, and mitigation of mosquito-borne illnesses. The software will be developed by TSC, which is the lead institution, based on past and continuing research by Dr. Niemann and Dr. Jones on soil moisture estimation and downscaling. Graduate students Garret Cowley and Dylan Hoehn will be central to the continued development and testing of the soil moisture method.



Dr. Hussam Mahmoud obtained a joint position with the School of Biomedical Engineering as core faculty member. Dr. Mahmoud's research interests include probabilistic tissue mechanics, premature labor and pregnancy maintenance, and fatigue



and fracture of hard tissues. His current effort in the field of biomedical engineering is focused on assessing risk associated with premature labor. Traditionally, premature labor has been evaluated while considering the deterministic mechanical characteristics of cervical tissues. Dr. Mahmoud's effort includes evaluating pregnancy maintenance using a structural engineering-based approach where the uterus and cervix are both combined to evaluate the system-level behavior. In addition, the system-level framework accounts for the statistical variations of the load and material while considering such variations at various gestational ages.

Faculty Awards



Dr. Darrell Fontane with his son, Frasier.

Dr. Darrell Fontane received the 2013 University Distinguished Teaching Scholars Award. The University Distinguished Teaching Scholars serve as the governing board for The Institute for Learning and Teaching. The director of the institute reports to them each semester, seeking guidance on the long-term direction of the institute and approval for initiatives.

Up to 12 members of the faculty at Colorado State University are given the title of University Distinguished Teaching Scholar. The title is held for the duration of their affiliation with the University. Faculty named University Distinguished Teaching Scholars have records of performance ranking them among the most outstanding teachers and educators in their disciplines, as reflected by their accomplishments as both scholars

and teachers, and have received national and international acclaim in recognition of outstanding achievement.

Dr. Christopher Bareither was awarded the ASCE 2013 Thomas A. Middle-

brooks Award, which recognizes a paper contributing to geotechnical engineering. The award was for the paper titled, "Deer Track Bioreactor Experiment: Field-Scale Evaluation of Municipal Solid Waste Bioreactor Performance," published in the June 2012 issue of the *ASCE Journal of Geotechnical and Geoenvironmental Engineering*. The award was presented for contributions to linking theory to practice in sustainable solid waste management using bioreactor technology through laboratory-scale and field-scale experiments." In addition, he received the 2013 Practical Paper Award from ASTM Committee D-18 on Soil and Rock for his paper, "Evaluation of Bouwer-Rice Large-Particle Correction Procedure for Soil Water Characteristic Curves," published in the *ASTM Geotechnical Testing Journal*.

The Steel Bridge Task Force of the Steel Market Development Institute, a business unit of the American Iron and Steel Institute, and the American Association of State and Highway Transportation Officials Technical Committee for Structural Steel Design named **Dr. Hussam Mahmoud** as the recipient of the 2014 Robert J. Dexter Memorial Lecture. The program was instituted in 2005 in memory of Robert J. Dexter, an associate professor of civil engineering at the University of Minnesota, who was an



Mahmoud receives the award from (left) Dr. Dennis Mertz, professor in the Civil and Environmental Engineering Department at the University of Delaware and (right) Alexander Wilson, Manager of Customer Technical Services for ArcelorMittal USA.

internationally recognized expert on steel fracture and fatigue problems in bridges. Dr. Mahmoud's presentation was titled "A Probabilistic Approach for Fitness-for-Purpose Assessment of Welded Details," which provided examples of defects that are deemed acceptable when assessed using fracture mechanics and a method for statistically determining when a crack could become unsafe.

In addition, Dr. Mahmoud was awarded the College of Engineering George T. Abell Outstanding Early-Career Faculty Award on Dec. 2.



Students (left) Simon Schaad and (right) Benjamin Mater celebrate with Dr. Karan Venayagamoorthy on their award.

Dr. Karan Venayagamoorthy and two of his graduate students, Benjamin Mater and Simon Schaad, received the prestigious Frenkial Award from the American Physical Society for their paper, "Relevance of the Thorpe length scale in stably stratified turbulent flow," published in 2013 in the journal, *Physics of Fluids*.

The citation for the award reads, "For new and significant insights into scaling laws for stratified turbulence with potentially broad impact in the area of environmental

flows." The award will be presented to Dr. Venayagamoorthy at the APS meeting in San Francisco in November 2014, which brings together about 3,000 fluid mechanics researchers from around the world every year and is the largest and most popular fluid mechanics conference in the world.

Dr. Jorge Ramirez was notified that his paper, "Projected freshwater withdrawals in the United States under a changing climate," published in the



2013 in Water Resources Research Journal received the 2013 Editors' Choice Award, which is given to about 1 percent of published articles in any calendar year and is selected by the editors of WRR on the basis of "technical significance, novelty, originality, presentation, and broader implications of the publication." The award was presented formally at the Hydrologic Sciences luncheon of the AGU Fall meeting in December 2014.

Dr. John van de Lindt was elected to an ASCE Fellow effective April 8, 2014. Fellow status must be attained by professional accomplishments



via application and election by the Membership Application Review Committee. ASCE Fellows have made celebrated contributions and developed creative solutions that change lives around the world. It is a prestigious honor held by fewer than 4 percent of ASCE members.



Dr. Tom Sale and Andrea Leeson, deputy director and environmental restoration program manager at SERDP and ESTCP.

Congratulations to **Dr. Tom Sale** for receiving a SERDP and ESTCP 2014 Project of the Year, recognized for outstanding research and technology developments that will benefit the Department of Defense. These efforts are helping the DoD enhance its mission capabilities, improve its environmental and energy performance, and reduce costs. Dr. Sale's project was in environmental restoration: "Basic Research Addressing Contaminants in Low Permeability Zones." His team developed analytical and numerical modeling techniques to address transport and fate of contaminants in heterogeneous media, along with a state-of-the-science review of management of contaminants in low permeability zones in aquifers.

Spring CEE Faculty and Staff Awards

Each spring, the Department acknowledges those in the Department who have shown excellence in various areas. The 2014 spring recipients were:

- Don Silar** – Outstanding Academic Partner
- Jess Cromley** – Staff Award for Excellence
- Dan Baker** – Outstanding Research Scientist/Instructor
- Karan Venayagamoorthy** – Faculty Award for Excellence in Teaching
- Jeff Niemann** – Faculty Award for Excellence in Service
- John van de Lindt** – Faculty Award for Excellence in Research
- Tim Gates** – Outstanding Faculty Performance

Dr. Ryan Bailey joined the Department of Civil and Environmental Engineering as an assistant professor in August 2013.

Dr. Bailey received his B.S. in civil and environmental engineering from Brigham Young University, his M.S. in environmental science from the University of Guam, and his Ph.D.



in civil and environmental engineering from Colorado State University. Dr. Bailey's research focuses on the sustainability of watershed management practices in regards to water quantity and water quality, with an emphasis on groundwater and stream systems. This research focus has afforded opportunities to work with watershed and groundwater systems in Colorado as well as groundwater systems of developing countries. Current projects focus on exploring remediation strategies for salinity and nutrient pollution in stream-aquifer systems in eastern Colorado, and providing assessments of groundwater quantity in the Federated States of Micronesia and the Republic of Maldives under climate stress.

Dr. Michael Gooseff joined the faculty of Civil and Environmental Engineering as an associate professor in July 2013. He

was previously an associate professor at Penn State University. He earned his BCE at Georgia Tech, and his M.S. and Ph.D. at the University of Colorado. He has extensive experience with field monitoring, instrumentation, and experimentation in temperate, mountain, and polar environments. He and his lab group use these collected data to develop new ecological, hydrological, and solute transport and fate conceptual and numerical models. Dr. Gooseff has active research projects in Antarctica, Arctic Alaska, and temperate regions of the United States. Other research interests include stream-groundwater interaction; hyporheic exchange; influence of hydrology and hydraulics on watersheds, stream, and ecosystem; and climate change in polar and temperate regions.



Faculty Emeriti



Wayne Charlie receives recognition plaque from Luis Garcia at retirement reception.

Dr. Wayne Charlie became professor emeritus upon retiring in May 2013 after 37 years of service to the Department of Civil and Environmental Engineering. He obtained his education in civil engineering at Michigan State University (Ph.D. in civil engineering with major in geotechnical engineering and minor in geology; M.S. and B.S. in civil engineering; and B.A. in social science). He has worked for various government agencies and private geotechnical engineering firms including the Bureau of Reclamation, the U.S. Peace Corps, the U.S. Air Force, and D'Appolonia Consulting Engineering. He has also been a geotechnical consultant to more than 20 organizations located in Alaska, Utah, Wyoming, Maine, Michigan, Colorado, New Mexico, New York, Ohio, Wisconsin, Washington, D.C., South Pacific, Europe, Africa, and the Caribbean. Topics included earthquake- and blast-induced soil liquefaction, industrial wastes, tailings, expansive soils, organic soils, dam safety, and blast damage. As a professor in the Department of Civil Engineering at Colorado State University, Dr. Charlie was project director for more than \$1 million of funded research on explosive- and earthquake-induced soil liquefaction, mine tailings, expansive soils, and organic soils. Dr. Charlie has introduced sophisticated computer data acquisition devices for recording laboratory and field transient behavior of soils under impact and explosive loading.

Dr. Steven Abt, professor emeritus of civil and environmental engineering at Colorado State University, was presented a Lifetime Achievement Award by the American Society of Civil Engineers – Environmental and Water Resources Institute during its annual meeting in Portland, Ore. He was cited for his significant con-



tributions to the society, the profession and the nation. Abt is a Fellow and life member of ASCE. He is currently serving as a senior research scientist at CSU and as a member of the Board of Trustees for the American Academy of Water Resource Engineers.

Dr. Marvin Criswell, professor emeritus of civil and environmental engineering at Colorado State University, was selected as the 2014 Tau Beta Pi Outstanding Advisor. He is the 21st awardee in this program that recognizes those who truly promote excellence in engineering education. A \$1,000 cash award was given in his name to the College of Engineering at Colorado State University. A \$1,000 award and plaque was presented to Dr. Criswell at the 2014 Tau Beta Pi Convention in Spokane, Wash., in October 2014.



In addition, Dr. Criswell was awarded the Meritorious Faculty Emeritus Award by the College of Engineering on Dec. 2.

Dr. John Nelson, professor emeritus, was named as vice-chairman of the Board of Trustees at the Asian Institute of Technology at the board's meeting in July 2014 by Dr. Subin Pinkayan, Ph.D., civil, '65.

John started his academic career at AIT in 1968 until he came to CSU in Fort Collins in 1973. He was the program leader of the geotechnical engineering program at CSU from 1973 until his retirement in 2007. During the period 1992 to 1996, he directed a program to set up a branch of the National Technological University in Thailand.

AIT was started as the SEATO graduate school under sponsorship of USAID. It was the result of efforts by Professor Maury Albertson, who was a visionary professor of civil engineering at CSU. The U.S. faculty were seconded through CSU, and thus, Dr. Nelson was a member of the CSU faculty while he was there. The SEATO Graduate School became autonomous under the auspices of King Bhumipol Adulyadej of Thailand in 1969. The success of the AIT was due in large part to Dr. Milton E. Bender, former head of Civil Engineering at CSU. He served as president of AIT from 1964 to 1974. AIT has had strong ties to CSU since its beginning.



Steven M. Cramer, M.S., civil, '81; Ph.D., civil, '84, was named vice provost for teaching and learning at the University of Wisconsin-Madison last summer. In addition to his role as professor in the Department of Civil and Environmental Engineering, Dr. Cramer served as the chair of ABET's Academic Advisory Council since its formation in 2010.

Dr. Omnia El Hakim, Ph.D., civil, '84, after several years of research and hard work, published her novel *Sesen: The Egyptian Lotus*. The book is part fiction and part real-life experiences dealing with true relationships between people and families from diverse populations with a diversity of thoughts. The novel includes love and romance along with strong emotions, moral values, and beliefs.

Dr. Subramania Sritharan, M.S., civil, '81; Ph.D., civil, '84, is the dean and professor of water resources management and environmental engineering, College of Science and Engineering at Central State University in Wilburforce, Ohio. Central State University, is Ohio's only public historically black university and is a member-school of the Thurgood Marshall College Fund. As dean, Dr. Sritharan oversees four departments: the Department of Manufacturing Engineering, the Department of Mathematics and Computer Science, the Department of Natural Sciences, and the Department of Water Resources Management. The college also contains the International Center for Water Resources Management, the Center of Excellence of STEM Education, and the Center of Excellence in Emerging Technologies – a center designated by the state of Ohio.



José A. Raynal Villaseñor, Ph.D., civil, '85, is the dean of the School of Engineering at the Universidad de las Américas Puebla in Puebla, Mexico. This is a private university known for its programs in arts and humanities, social sciences, science and engineering, and business and economics. It



is considered to be one of the most prestigious universities in Latin America and is one of only seven universities in Latin America accredited by the Southern Association of Colleges and Schools.

Dr. Abdullah M. Mohorjy, Ph.D., civil, '87, is currently vice president for admin-



istration at King Abdul Aziz University in Saudi Arabia. The university has more than 100,000 students. Dr. Mohorjy was able to make a recent visit this past summer to our Department and stopped by to visit with Neil Grigg (pictured) among others.

Armando Balloffet Jr., Ph.D., civil, '92, is president of his professional engineering firm, Balloffet International LLC, which was founded in 2002 in Fort Collins, Colo. Dr. Balloffet's business travel last year included several trips to Thailand, Laos, Cambodia, and Vietnam (for the Mekong River Commission, ADB, and NIRAS), the Republic of Georgia (for MCC), and Chile (for Arup). One happy event for Dr. Balloffet was marked by the



joyous arrival on April 27, 2013, of his first grandson, Diego (pictured).



Mark Hofmeister, B.S., civil, '01, is currently working at Denver Metro Waste-water in transmission lines. He has been in the Peace Corps and also worked as a consultant. Hofmeister and Dr. Neil Grigg ventured out on a hiking trail in July 2013, pictured above.

Howard Perko, M.S., civil, '96; Ph.D., civil, '02, has been appointed to the honorary Michigan Technological University Civil Engineering Academy. Since its founding in 1964, there are only about 100 members out of more than 15,000 civil engineering graduates. The chairman of the Civil Engineering Department, Dr. David Hand, told Dr. Perko that he is the youngest professional engineer to be nominated and accepted ('93) into the academy, just surpassing the 20 year minimum criterion for professional practice. The next youngest member is Brenda O'Brien ('84), who is chief engineer with Michigan DOT. Acceptance into the academy is a prestigious award for distinguished and continuing achievements in civil engineering. The department will cast a bronze statue of Dr. Perko's likeness, which will be displayed in the Civil Engineering Building with other academy members. Dr. Perko will travel to Michigan next September to accept the award.





Pictured left to right are Mozhdeh Dalaeli, Christine Alfano, Kirsten Peterson, Robert Lankford, Mehrdad Memari, Aimee Corn, Dr. Rebecca Atadero, Dr. Marvin Criswell, Dr. Hussam Mahmoud, Tyler Sobieck, Chris Bright, and Neal Bohnen.

Neal Bohnen, B.S., civil, '08; M.S., civil, '10, is working at S.A. Miro in Denver and took a group of faculty and students on a site visit of the Denver International Airport expansion. The South Terminal Redevelopment Program at DIA is made up of independent yet physically integrated projects, which include the construction of a 500-room Westin hotel and conference center, an RTD FastTrack's commuter rail station, and improvements to the existing concourse baggage and train systems. In addition, the \$500 million program includes an open-air plaza, complete with new concessions and leasable space, which connects the development to the existing Jeppesen Main Terminal. S.A. Miro is the structural engineer of record for both the transit center and the hotel. The concept design will be a signature addition to the fourth busiest airport in the United States.



Yoshihiro Katsuhama and Basuki Hadimuljono.

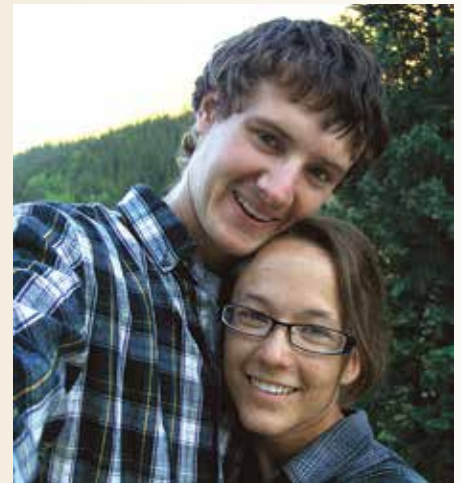
Yoshihiro Katsuhama, M.S., civil, '03; Ph.D., civil, '10, attended the International Commission on Large Dams annual meeting in Bali, Indonesia. Dr. Katsuhama is a manager in the Center for Human Resources Planning in Nippon

Koei Co. Ltd., an international engineering consulting firm in Japan. When Dr. Katsuhama registered for the meeting he met Dr. Basuki Hadimuljono, M.S., civil, '89; Ph.D., civil, '92, who was a host for the meeting. Dr. Hadimuljono was appointed as minister of public works and public housing in October 2014 by the Indonesian cabinet.



Lindsay Tita, B.S., civil, '09, and **Austin Adams**, B.S., civil, '09 married last May in Cancun, Mexico. Tita is doing geotechnical engineering work with Michael W. West & Associates Inc. in Englewood, Colo., and Adams has taken over his family company, Golden Railings Inc.

Jaehoon Kim, Ph.D., civil, '12, after doing postdoc work for Pierre Julien for six months, was hired by ENERCON in Oklahoma City as a water resources engineer. Even though ENERCON is a nuclear engineering company, they are re-evaluating flooding analysis at several nuclear power plants due to the Fukushima Daichi nuclear disaster in 2011. Dr. Kim's work was related to water resources engineering. His research topic was landslide hazard mapping for disaster prevention. Dr. Kim has accepted a postdoc position at the National Urban Disaster Prevention Center at the Korea Research Institute for Human Settlements. As an associate researcher, he is helping to establish disaster prevention policy by conducting landslide hazard analysis.



Justin Kattvig, B.S., civil, '13; M.S., civil, '14, married Rachel Kaye Kattvig upon completing his master's degree.

Alumni and Friends Website

www.engr.colostate.edu/ce/alumni.shtml

Look up your former classmates on the Alumni and Friends website! The news is arranged on the website according to graduation year.

Send your own personal or professional news to Linda.Hinshaw@ColoState.edu.

LEGACY PARK



James Thorsen, B.S., civil, '14, has been the city manager for the city of Malibu for the last eight years. After graduating, he worked for several years for the cities of Greenwood Village, Colo., and Commerce City, Colo. Thorsen then moved to California where he became a senior engineer for the city of Simi Valley, Calif. He was public works director/city engineer for the city of Agoura Hills for about nine years. Now, city manager of the city of Malibu, he worked on the Legacy Park



project. This park has several awards for engineering and design.

Thorsen is most proud of the American Society of Civil Engineers Award for the "Project of the Year" for Region IX. Region IX covers the entire state of California, and the award is quite an achievement for a city the size of Malibu.

Malibu holds preserving natural resources and keeping oceans and waterways clean among its top priorities. Legacy Park answers these concerns in several ways. It serves as a recreation area in Malibu while simultaneously cleaning stormwater and urban runoff. The park's design recycles captured and treated stormwater for irrigation; educational artwork and informational kiosks teach park visitors about endangered Southern California habitats; and Legacy Park, of course, provides a beautiful recreation area for Malibu's residents and visitors.



The integrated water quality management plan includes a phased process to improve water quality and protect the health of Malibu's nearly 13,000 residents and 15 million visitors.



Legacy Park Project Awards

- **Outstanding Stormwater Best Management Practice Implementation – Comprehensive Regional Project**
Presented by California Stormwater Quality Association, September 2011
- **2011 Outstanding Sustainability Project**
Presented by the Metropolitan Los Angeles Branch of the American Society of Civil Engineers, October 2011
- **2011 B.E.S.T. Creative and Innovative Project of the Year**
Presented by American Public Works Association, Southern California Chapter, December 2011
- **2011 Outstanding Sustainability Project**
Presented by the American Society of Civil Engineers, Los Angeles Section, October 2011
- **2011 Engineering Achievement Award**
Presented by Water Environment Association, Los Angeles Basin Section, December 2011
- **Project of the Year**
Presented by the American Society of Civil Engineers, Region 9, February 2012
- **2012 Water Quality Improvement Award**
Presented by the Water Environment Federation, October 2012
- **2012 Water Reliability 2020 Award**
Presented by West Basin Municipal Water District, October 2012
- **2013 Helen Putnam Award – Public Works, Infrastructure and Transportation**
Presented by the League of California Cities, September 2013



Where Are They Now?

Adam Alguire, B.S., civil, '13, is with ECC in Lakewood, Colo., as a quality control supervisor.

Kelly Allegar, B.S., civil, '13, is an EIT 1 at Martin/Martin Consulting Engineers in Lakewood, Colo.

Devin Blanch, B.S., civil, '13, works for KS Engineers in New York, N.Y. He is a civil inspector.



Jeremy Begley, B.S., civil, '13, is with URS in Denver and working on structural design for oil and gas pipelines in Alberta. He is pictured with Dr. Neil Grigg when they went hiking the trail up Mount Shavano, a 14er in the Collegiate Range near Salida, Colo.

Jeremy Carlston, B.S., civil, '13, is pursuing his master's degree in hydraulics at Colorado State University.

Kristi Gemperline, B.S., civil, '13, is a roadway designer for Tsiouvaras Simmons Holdernes in Greenwood Village, Colo.

After interning with Saunders Construction, **Samuel Holloway**, B.S., civil, '13, joined the company as project engineer upon graduating from CSU.

Bryan Grotz, B.S., civil, '13, is a project engineer with HWC Engineering in Indianapolis, Ind.

Gio DiDomenico, B.S., civil, '13, is pursuing his master's degree within the RailTEC railway systems group at the University of Illinois Urbana-Champaign. DiDomenico is interested in passenger rail design,



system optimization, high-speed rail, and public transit. He hopes to design passenger rail or high-speed rail systems later in his career.

Emily Kullberg, B.S., civil, '13, returned to CSU for her master's in water and international development.

Kyle Lebrasse, B.S., civil, '13, is a piping engineer I with Kiewit Offshore Services in Ingleside, Texas.

Kasandra Lowery, B.S., civil, '13, works for Parsons Corporation in Denver, Colo., as an associate highway engineer.

Tyler Lund, B.S., civil, '13, married his longtime sweetheart, Alina, and is an engineer with Shim-mick Construction working on a project in Long Beach, Calif.



Jourde Mitchell, B.S., civil, '13, is an engineering assistant I for the state of Alaska Department of Transportation in Anchorage, Alaska.

Dan Mogen, B.S., civil, '13, is currently with the city of Fort Collins Utilities as an engineering technician.

Carson Rowley, B.S., civil, '13, joined GDA Engineers in Cody, Wyo., as a project engineer in the aviation department.

Jenna Schroeder, B.S., civil, '13, is a staff engineer for Leonard Rice Engineers Inc. in Denver, Colo.

Tressa Thompson, B.S., civil, '13, decided to take a break and worked for the Wolf Creek Ski area after graduating. She was thinking of possibly joining the Peace Corps.

Julie Almsay, B.S., civil, '14, is a civil engineer I for NewFields in Lone Tree, Colo.

Emmet Costen, B.S., civil, '14, is currently working as a structural engineer for URS Corp. in Colorado Springs. He reports that he is already using some of the geotechnical knowledge that he learned in class at CSU to help determine loading on concrete retaining walls and footings. As a structural engineer, he does not deal directly with the geotechnical side of things but the information he received in his geotechnical engineering



classes has proven to be very valuable for most projects he works on.

Jennifer Dattolo, B.S., civil, '14, joined Halliburton as an associate technical professional in cement.

Tyler Dell, B.S., civil, '14, continued on at Colorado State University as a master's degree candidate in hydrologic engineering water sciences.

Chris Fitzsimmons, B.S., civil, '14, was hired by CTL/Thompson in Denver, Colo., as an engineering tech II.

Chelsea Forman, B.S., civil, '14, is a field engineer at Morten Construction in St. Paul, Minn.

Vaishak Gopi, B.S., civil, '14, is pursuing a master's degree in structural engineering at CSU.

Tony Grasso, B.S., civil, '14, joined Coloscapes Concrete in Windsor, Colo., as a field engineer.

Emily Heckman, B.S., civil, '14, and **Jake Leins**, B.S., civil, '14, are missionaries for the Fellowship of Catholic University Students in Golden, Colo.

Corrie Houser, B.S., environmental, '14, is a water quality intern at the city of Loveland until February, when she will depart to join the Peace Corps in Panama.

Bryce Petersen, B.S., civil, '14, is a production supervisor for Rocky Mountain Prestress in Denver, Colo.

Corey Petersen, B.S., civil, '14, joined Bowman Consulting as an engineer III.

Keith Wakefield, B.S., environmental, '14, is with USDA ARS WMU in Fort Collins as an engineer in training.

Charles Michael Weber, B.S., civil, '14, joined the Kansas Department of Transportation in Oakley, Kan., as an engineering associate I.

Dr. Everett V. Richardson

Dr. E.V. Richardson was born on Jan. 5, 1924, in Scottsbluff, Neb. to Tom and Jean Richardson and died at the age of 90 on Aug. 6, 2013. The Richardson and Spurgeon families of Scottsbluff were instrumental in his upbringing. Following his graduation from Scottsbluff High School in 1941, Dr. Richardson served in the Army and he was wounded at the Battle of the Bulge. On a visit to the U.S.S. Missouri, Dr. Richardson reflected that the Missouri held a special place in his heart because if the Japanese hadn't signed the surrender on its decks, he was due to be sent to the Pacific Theater.



Following the war, Dr. Richardson enrolled at Colorado A&M. It was there that he met his wife, Billie Ann Kleckner (Feb. 8, 1927-July 18, 2013), forming a partnership that spanned more than 65 years.

Speaking as the CSU Honor Alumnus, he told how Colorado A&M greeted the returning GIs by setting up housing in

the Field House – there not being enough housing on campus or in Fort Collins to handle the influx of students after the war. Dr. Richardson was fiercely loyal to Colorado State University. He holds a B.S., M.S., and Ph.D. from CSU in civil engineering.

In his 63-plus years as an expert in bridge scour, irrigation, open channel flow, alluvial flow, on-farm water management, and international development, Dr. Richardson traveled the world working on projects in Pakistan, Venezuela, Egypt, India, and Bangladesh. His career included 17 years with the Water Division of the U.S. Geologic Survey, 25 years as a professor of civil engineering and administrator for the Engineering Research Center at CSU, and 21 years as a senior associate at Ayres Associates. Dr. Richardson was a Fellow ASCE, Honorary Diplomat Engineering Water Resources, and he received the Hans Albert Einstein Award.

One especially notable project was when the National Academy of Science asked him to go to Egypt with a team of other scientists to show the United States' sincerity to Egypt after presidents Carter and Sadat formulated

the U.S.-Egypt accords. Egypt was just starting its Irrigation Water Center and needed help. The Agency for International Development asked Dr. Richardson to write a proposal and put together a team to work with Egypt on this need. AID funded two projects for a total of \$27 million, the largest grant in CSU's history.

Dr. Robert Warren Hayman

Dr. Hayman, 81, died Wednesday, Oct. 1, 2014. Born in Crested Butte, Colo., in 1933 to George and Laverne Hayman, he spent his youth in small mountain towns throughout Colorado and Wyoming, graduating from Boulder High School in 1952.

He was accomplished in academia, having earned his Ph.D. in operations research at the University of Colorado and as a faculty member in civil engineering at CSU. He was a pioneer in the early days of computing, founding the Institute for Advanced Computing Technologies and deploying the industry's first super computer into higher education. Working with the U.S. State Department on industrial development projects in the '60s he lived with his young family in Bahia, Brazil.

Student News – Recent Graduates

Fall 2013

Front Row:

Tressa Thompson, civil; Laura Ledbetter, civil; Chris MacLaird, civil. Second Row: Sam Holloway, civil; Corey Martin, civil; Sean Franklin, civil. Third Row: Michael Wynne, environmental; Jenna Schroeder, civil; Josh Gregg, civil; Adele Nez, civil; Olivia Ferrell, civil. Fourth Row: Michael Tanner, civil; Marianne Pascoe, civil; Andrew McGinley, civil.

Fifth Row: Jiahua Liu, civil; Zach Grady, civil; Ryan King, environmental; Dr. Pierre Julien. Back Row: Laurie Alburn, academic adviser, Dr. Neil Grigg, Dr. Christopher Thornton; Dr. Charles Shackelford.



Spring 2014

Front Row: Wen yuan

Tang, civil; Qingjing Gong, environmental; Emily Kasyon, environmental; Joy Foley, civil. Second Row: Jacob Leins, civil; Cole Brubaker, civil; Ryne Schroder, civil; Tyler Dell, civil; Steve Mantell, civil. Third Row: Aidan Thomas, civil; Emily Heckman, civil; Connor Henkel, civil; Doug Gossett, civil; Kyle McKenna, civil; Bryce Petersen, civil. Fourth Row: Jennifer Dattolo, civil; Gary Floyd, civil; Julie Almasy, civil; Jennifer Hippiisley, civil; Chelsea Forman, civil. Fifth Row: Keith Wakefield, environmental; Chris Fitzsimmons, civil; Blaine Mathisen, civil; Sarah Carew, civil. Sixth Row: Tony Grasso, civil; Vaishak Gopi, civil; Emmet Costen, civil. Seventh Row: Brandon Sampaio, civil; Taylor Ray, civil; Brent Savolt, civil. Eighth Row: Thomas Ruder, civil; Michael Dowd, civil; Shane Javernick, civil; Laurie Alburn, academic adviser. Ninth Row: Eric Wolaver, civil; Mark Harris, civil; Mackenzie Hill, civil; Jess Cromley, undergraduate adviser. Tenth Row: Jack Danneberg, environmental; Garth Vernon, civil; Dr. Peter Nelson; Dr. Charles Shackelford.



Kristin Sample Lord, M.S., civil, '07, is a Ph.D. candidate performing geoenvironmental research for waste containment barriers under the direction of Dr. Charles Shackelford. She is the current instructor for Introduction to Geotechnical Engineering for the 2014-2015 academic year. Sample Lord is working to complete her dissertation and graduate in Spring 2015, after which she will join the Civil Engineering Department at Villanova University as a tenure-track assistant professor. In August 2013, Sample Lord gave birth to Ava Linnea Lord who stays busy preparing to join the CSU graduating class of 2035 (pictured).



Cole Brubaker, B.S., civil, '14, was one of three students in the U.S. selected to receive a \$10,000 Thornton Tomasetti Foundation National Scholarship. This scholarship is awarded to students entering a master's degree program specializing in structural or architectural engineering and who "endeavor to make an impact on the structural design of buildings."

Brubaker was enrolled in the CSU University Honors Program. He traveled to South Korea this past summer to work at Chonbuk National University on research related to structural health monitoring. Last fall, he began his M.S. at Vanderbilt University and also works at the Laboratory for Systems Integrity and Reliability, researching and developing new technologies to help detect structural damage.



ASCE Student Awards

ASCE students from Colorado State were recognized on April 17, 2014, at the ASCE Colorado Section meeting in Denver, along with other award winners from other ASCE student chapters in the state.

The Outstanding Senior Awards were given to **Rosalind Reynolds**, First Place, **Jake Liens**, Second Place, and **Anthony Grasso**, Third Place.



Left to right: Dr. Johannes Gessler, Anthony Grasso, Jake Liens, Rosalind Reynolds, and ASCE adviser, Dr. Hussam Mahoud.

ASCE Rocky Mountain Regional Conference

The ASCE student organization hosted the Rocky Mountain Regional Conference in April 2014.

With more than 400 in attendance, this was quite a feat with activities taking place on the Main Campus and the Foothills Campus, and at Horsetooth Reservoir. Fourteen out of a possible 15 chapters from the region attended, including South Dakota School of Mines, New Mexico State University, Brigham Young University, New Mexico Tech, Metropolitan State University, University of Colorado Boulder and Denver, Colorado School of Mines, University of Wyoming, University of New Mexico, Utah State, U.S. Air Force Academy, Salt Lake Community College, New Mexico State, and, of course, Colorado State University.

The program included:

Thursday, April 3

Registration
CANstruction
Barbeque
CANstruction Judging

Friday, April 4

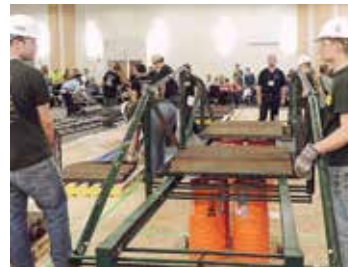
Bridge Drop Off
Registration
Chapter Presentations
Technical Paper
Nontechnical Paper
Canoe Presentations
Bridge Set
Bridge Captains Meeting
Bridge Aesthetics

Friday, April 4 (cont.)

Lunch
Bridge Competition
Canoe Aesthetics Set
Canoe Aesthetics Judging
Pre-Design

Saturday, April 5

Business Meeting
Mystery Design
Canoe Setup
Canoe Captains Meeting
Swamp Testing
Lunch
Canoe Race
Closing Banquet



Steel Bridge competition in Johnson Hall. CSU's bridge failed, however, it weighed a record 400-plus pounds – a first.



Jocelyn Bryant and Rosalind Reynolds and celebrate after taking second in the Women's Final Sprints.

The Concrete Canoe fared better than the bridge:

Placed second in Women's Final Sprints
Placed fifth in Men's Final Sprints
Placed second in Coed Final Sprints
Placed third in Women's Slalom/Endurance Race
Placed fourth in Men's Slalom/Endurance Race



EES club members at conference (from left to right): Yu Zhang, Victor Sam, Sarah Dixon, Emilie Abbott, Samantha Mauzy, Kayla Whitehead, Hitomi Okada, Keith Wakefield, Thomas Luckie

Environmental Engineering Society Hosts 11th Annual RMWEA/RMSAWWA Student Conference

On May 22, 2014, the Environmental Engineering Society hosted the annual RMWEA/RMSAWWA student conference. EES is a student chapter of the Rocky Mountain Section of the American Water Works Association and the Rocky Mountain Water Environment Association.

The conference showcased oral presentations and posters addressing a number of topics related to water. Each year, a school from the Rocky Mountain region is selected to host the conference. Last year's conference was hosted by CSU. Participants came from CSU, University of Colorado at Boulder, Colorado School of Mines, and New Mexico State University. Winners of the various competitions were:

Oral presentations:

- First – Bryan Coday, Colorado School of Mines
- Second – Kerri Hickenbottom, Colorado School of Mines
- Third – Daniel Fourness, Colorado State University

Poster presentation:

Elizabeth Bell, Colorado School of Mines (*Winning the poster competition ensured Bell a trip to AWWA's Fresh Ideas national poster competition.*)

Keynote speakers were Dr. Ken Mercer of AWWA and Dr. Ken Carlson of CSU. Conference judged by Dr. Ken Mercer, Dr. Ryan Bailey of CSU, Russell Plakke of Denver Water, and Victor Sam, a recent CSU graduate who now works in environmental consulting.

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The Baby Corner

Dr. Peter Nelson and his wife, Laurie, announced the arrival of Ian August Nelson on Saturday night, May 18, 2013.



Ian August Nelson

Dr. Kimberly Catton and her husband, Dr. Thomas Bradley, announced the arrival of Vivienne Caroline Bradley on Aug. 13, 2013.



Vivienne Caroline Bradley

Dr. Susan de Long and her husband, Frank Llosa, announced the arrival of Mateo Alejandro Llosa on Friday, Aug. 30, 2013.



Mateo Alejandro Llosa

Dr. Pinar Omur-Ozbek and her husband, Dr. Mehmet Ozbek, announced the arrival of Brock Burak Ozbek on Thursday, June 26, 2014.



Brock Burak Ozbek

Alumni **Alana Knudson Bales**, B.S., civil, '04, and **Garrett Bales**, B.S., civil, '04, announced the arrival of Bryce Bales on Monday, April 28, 2014. Garrett Bales is now working at JR Engineering as a group lead engineer managing small and large scale civil infrastructure improvement projects for municipalities and private clients. Alana Bales is at HDR as a water resource engineer working on large design-build projects such as the Eagle P3 Commuter Rail Lines from Denver Union Station east to DIA, west to Arvada, and northwest to Westminster.



Bryce Bales

Alumni **Erin Dallinger Jessee**, B.S., civil, '08, and **Brian Jessee**, B.S., civil, '08, announced the arrival of their daughter Brynn Nicole Jessee on Nov. 4, 2014.



Brynn Nicole Jessee



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