



Message from the Chair

The Department Civil and Environmental Engineering (CEE) continues to do well. Many exciting events have occurred in the past year. I will mention a few of them below and begin with the general state of the department.

During the 2011-2012 academic year and the summer, we graduated 148 new civil and environmental engineers. These graduates earned an average GPA of 3.20 and 18 of them graduated with honors. Job placement, which fell off drastically with the initial downturn in the economy, has picked up significantly this year. Among our May graduates, 75% had jobs at graduation or were accepted in graduate school. More than 90% of our December graduates had found entry level positions or graduate school appointments within two months of graduation. Our graduates' performance on the Fundamentals of Engineering (FE) exam remains above both the national average as well as above the average of our NCEES comparison schools.

The CEE faculty is growing too. We hired two new assistant professors in Fall 2011, one more in Fall 2012, and plan to hire two to four more during the next twelve months. Some of our students, faculty members, and alumni won prestigious awards during this academic year. The faculty awards were won by Dr. Bill Lawson and Dr. Jimmy Smith.

Among other changes that have occurred, Dr. Audra Morse has accepted a new position in the Dean's Office as associate dean of undergraduate studies. She was highly respected and recognized for her teaching and research. She will be missed in the department.

Sadly, three of our well-known faculty members passed away during the past year. Professor Emeritus Billy J. Claiborn, who retired in 1992, succumbed after a short bout with a serious illness. Professor Emeritus Robert M. Sweazy, who retired in 2006, died as the result of complications following major surgery. Finally, Professor Jimmy H. Smith passed away after a two year struggle with a serious illness.

The department had a successful ABET accreditation visit in November. The two accredited programs, the Bachelor of Science in civil engineering and the Master of environmental engineering, continue with full accreditation. Dr. Audra Morse and Dr. Ken Rainwater took a lead role in preparing the assessment reports. I wish to that those alumni who came to campus during the visit to talk with the ABET representatives.

The Whitacre College of Engineering is embarking on a multi-year campaign to raise approximately \$6.5 million to upgrade and modernize equipment in teaching laboratories. The majority of the labs with deficient equipment are in CEE. Therefore, CEE would appreciate financial aid in acquiring state of the art lab equipment to enhance the laboratory experiences of our students. The success of the laboratory upgrade effort will impact tremendously the quality of education our CEE students receive.

At its spring meeting, the CEE Academy inducted Andrew Ickert, Rachel Ickert, Lani Marshall, Stephen Morse, Trooper Smith, and Brad White in recognition of their distinguished engineering careers. The CEE Advisory Council and Academy continue to solicit gifts for the CEE Academy Endowed Scholarship Fund. Anyone wishing to contribute may contact Bob Bailey at bbailey@exponent.com or Stephanie Griffin at swg@freese.com

Please enjoy reading about the accomplishments of students, alumni, and faculty.

Dr. H. Scott Norville, P.E.
Professor and Department Chair



Norville



Haboob and the Canoe Team (Left to Right): Paul Evans, Mark Mink, Christine Marshall, Cristal Tay, Casey Ramsey, Jenny Sarabia, Juliana Hare, Nicole Frantz Smith, Chad Ostrander (Team Captain), Neil Curran, Eric Jeske, Jamie Gallagher, Josh Steiger

Students Compete in Concrete Canoe Competition, Win Races

The ASCE Murdough Student chapter competed in the Texas-Mexico Student Conference Concrete Canoe Competition in April 2012.

The ASCE Concrete Canoe Competition provides students with a practical application of the engineering principles they learn in the classroom, along with important team and project management skills they will need in their careers. The event challenges the students' knowledge, creativity and stamina, while showcasing the versatility and durability of concrete as a building material.

The 2012 Concrete Canoe races were held at Boerne City Lake in Boerne, Texas, on Saturday, April 21. Texas Tech's canoe entry was named "Haboob" in recognition of the power of West Texas dust storms.

Haboob weighed in at approximately 250 lbs with a length of 20 feet and a width of 34 inches. The Texas Tech Concrete Canoe Team and Haboob came in sixth place. The weight of the canoe and its "less than aesthetically pleasing appearance" contributed to the team's performance.

In the canoe races, the team fared well, earning the following awards:

- First place in Women's Long Distance
- Second place in the Women's Sprint
- First place in the Men's Sprint
- Third place in Men's Long Distance
- Second place in Co-Ed Sprint

The overall winners at the event were The University of Texas at Tyler, Texas A&M University, and the University of Houston.

Student News

Texas Tech Competes in 2012 Regional Steel Bridge Competition



Texas Tech's Steel Bridge under construction during the competition.

A team from the ASCE Murdough Student Chapter at Texas Tech competed in the regional AISC-ASCE Steel Bridge Competition held in January 2012 at the Pasadena Convention Center in Pasadena, Texas.

The team consisted of Adrian Acosta, Jarod Brown, Daniel Buntoro, Raquel Cantu, Colby Henderson, Jake Irvin, Joey Johnsen, Dakota McDonald (Captain), Mario Mendez, Bob Pearson, Joshua Short, Jonathan Stein, John Hood, and Zachary Garrett.

The steel bridge competition gives students experience in several areas pertinent to civil engineering including steel design and fabrication, project management, and construction management.

This year's bridge was disqualified because a part did not meet the dimension requirements in the rules. The University of Texas at El Paso won this year's competition, their second win in as many years, and their team went on to the National Student Steel Bridge Competition at Clemson in May.

Texas Tech Places in WEAT Student Design Competition

The Texas Tech Chapter of Society of Environmental Professionals sent Whitney Abernathy, Adrienne Sanchez, Taryn Wier, and Chris Wolff as representatives to the Water Environment Association of Texas (WEAT) Design Competition in San Antonio in April 2012.

The competition design project was to develop a plan for expanding the capacity of the Weatherford wastewater treatment plant from 4.5 million gallons per day (MGD) to 6.3 MGD.

The Texas Tech team's design placed second in the competition, which was Texas Tech's best showing ever.

Allemann Receives Hollings Scholarship from NOAA

Andrew Allemann, a MEnvE student, received a National Oceanic and Atmospheric Administration (NOAA) Ernest F. Hollings Scholarship.



Allemann

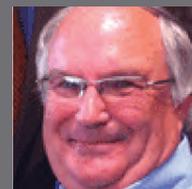
The Hollings Scholarship Program provides successful undergraduate applicants with awards that include academic assistance (up to a maximum of \$8,000 per year) for full-time study during the nine-month academic year and a 10-week, full-time internship position during the summer at a NOAA facility.

The internship between the first and second years of the award provides the scholars with practical educational training experience in NOAA-related science, research, technology, policy, management, and education activities.

Staff News

Thornhill Receives Rowan Award

Brad Thornhill, unit manager for the Water Resources Center, was awarded the Chancellor's Colonel Rowan Award for Execution.



Thornhill

This award is given to employees who best demonstrate the ability to execute and follow up with important projects, and accomplish an objective quickly, and efficiently with minimal oversight.

Hutchison Receives Top Techsan Award

Shannon Hutchison, unit manager in charge of the structures and geotechnical laboratories, will receive a Top Techsan Award in the fall of 2012 awarded by the Texas Tech Alumni Association.



Hutchison

Recipients of Top Techsan Awards are non-faculty employees who display "extraordinary work proficiency and an attitude of team spirit within the Texas Tech family."



Alumni News

Verhines Named New Mexico State Engineer

Scott Verhines, 1979 Texas Tech graduate with a Bachelor of Science in civil engineering, has been named the state engineer of New Mexico.

As state engineer, Verhines will be the state's top water manager. His responsibilities will include supervising the state's water resources through the measurement, appropriation, and distribution of the state's ground and surface water, including streams and rivers that cross state boundaries. He will also assume his new duties as the secretary of the Interstate Stream Commission and as a member of the New Mexico Water Trust Board.

Verhines is a registered professional engineer in New Mexico, and has more than 34 years experience focusing on water resources, transportation, and drainage and flood control projects.

Harkins Wins Gold Medal Award and National Recognition Award

Dr. Victoria Richards Harkins, P.E., D.WRE, a 1995 Texas Tech graduate with a Master of Science in civil engineering and a 1998 graduate with a Doctor of Philosophy in civil engineering, was awarded the 2012 American Council of Engineering Companies (ACEC) Texas Gold Medal/Eminent Conceptor Engineering Excellence Award and ACEC National Award this past April in Austin, TX and Washington, DC. Harkins was recognized for her work and design on the Hamilton Pool and its Receiving Watershed Restoration Project in Austin, Texas.

Harkins applied a creative and innovative sediment removal and restoration plan, which included manual and equipment-assisted silt removal for environmentally sensitive areas with special attention to local wildlife, livestock, vegetation, and aquatic species. The project had measureable positive impacts with re-establishment of the creek system and Hamilton Pool to restore the system's vegetative, wildlife, aquatic, and recreational values. Hamilton Pool is part of the Balcones Canyonland Preserve, home to the endangered Golden Cheek Warbler (GCW). Special attention with design changes were made to address the warbler.

Harkins is president of Harkins Engineering, Inc., a firm that provides environmental, municipal and civil engineering consulting services to governmental and private corporation clients.



Verhines



Harkins

Faculty News

Lawson Receives NSPE Award, Engineer of the Year Award

Dr. William Lawson, an associate professor, received the 2011 Engineering Education Excellence Award from the Sustaining Universities Program of the Professional Engineers in Higher Education of the National Society of Professional Engineers (NSPE).



Lawson

In addition, the South Plains Chapter of the Texas Society of Professional Engineers (TSPE) named Lawson as its Engineer of the Year. The TSPE Engineer of the Year Award is the highest honor given to an individual TSPE member.

New Faculty Members

Dr. Weile Yan

Dr. Weile Yan joined the CEE faculty as an assistant professor in fall 2011. Yan received a Ph.D. in environmental engineering from Lehigh University, a M.S. in molecular engineering of biological and chemical systems from the Singapore-MIT Alliance, and a B. Eng. in chemical and environmental engineering from the National University of Singapore.



Yan

Her research interests include "Iron nanoparticles: applications to environmental contaminant sequestration, surface chemistry and surface-mediated interactions, long-term nanoparticle reactivity, fate, and transport" and "Interactions of iron or iron oxides in biochemical systems, materials for environmental catalysis, cycling and fate of heavy metals in the environment."

Dr. Stephen M. Morse

Dr. Stephen M. Morse, a Texas Tech graduate, joined the CEE faculty as an assistant professor in fall 2011.

Morse has extensive experience in model scale and full scale testing, numerical modeling, and software development. His research interests include window glass strength, wind loads on structures, and finite element analysis. He actively participates on committees responsible for writing and maintaining glass industry design standards. Morse is passionate about teaching and strives to inspire students to take ownership of their education.



Morse



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Alumni News

Civil and Environmental Engineering Academy Inducts New Members

The CEE Academy inducted six new members at its spring banquet in April 2012:

Dr. Stephen M. Morse (BSCE 1999, MSCE 2003, Ph.D. 2009). Stephen is an assistant professor in Civil and Environmental Engineering at Texas Tech. He is an expert in wind loads on structures and window glass strength and behavior.

Ying-Hsuin (Lani) Marshall, PE., LEED AP BD+C (BSCE 2000; M.Eng. UTA 2005). Lani works for URS Corporation in Dallas. Her areas of concentration are transportation engineering and planning. She has had significant projects with Dallas Area Rapid Transit the North Texas Tollway Authority, the Texas Department of Transportation, and several municipal agencies.

Tarleton (Trooper) Wade Smith II, PE. (MEnvE, 2000). Trooper serves as the manager of the Central Region Wastewater Treatment, Transmission, and Utilities Group for Freese and Nichols. In addition to winning numerous awards for his work, Trooper received a Bronze Star for Operation Iraqi Freedom in 2005.

Rachel Ickert, PE. (BSCE, 2001; MSCE UTA 2003). Rachel works as a Water Resources Engineer at Freese and Nichols. Rachel primarily aids municipalities and water districts in planning and developing future water supplies. Her involvement includes the development of Senate Bill One Regional Water Supply Plans for Regions A, C, and F.

Andrew Ickert, PE., CFM (BSCE 2000; MEng. Cornell University 2001). Andrew serves as a member of the Half Associates team in Fort Worth Texas. He has been involved with several hydrologic, hydraulic, and reservoir operations projects. He is a member of several professional organizations.

Brad White, PE. (BSCE 1984, MSCE 1986). Following his outstanding college football career and several engineering positions, Brad currently serves as Principal in Charge of Transportation with Infrastructure Associates, Inc. He has led the transportation department to state-wide acclaim. Brad is active in professional and community organizations.



(L-R) Dr. Stephen M. Morse, Ying-Hsuin (Lani) Marshall, Tarleton (Trooper) Wade Smith II, Rachel Ickert, Andrew Ickert, Brad White

Keeping in Touch

The Texas Tech Department of Civil and Environmental Engineering would like to know what is happening in your professional life. Visit the following website to update your information or let us know about your accomplishments: www.coe.ttu.edu/info