Dear Friend of the College of Engineering,

The College of Engineering is proud of the young people we educate. Employers consistently compliment our graduates for their strength as employees: grounded in fundamentals, able to apply their knowledge to real world problems, able to work well in teams, problem-solve, and roll up their sleeves to get a job done. We think our graduates are prepared not only to be engineers, but also to take on leadership roles in their professional and personal lives.

The proof is in the pudding, as they say, and it is the exceptional accomplishments of our alumni that provide clear evidence that the combination of bright students, dedicated faculty, and a strong education leads to vast opportunities for success.

This month, Texas Tech University will recognize Dain Hancock as a TTU Distinguished Alumnus. Hancock, a graduate of the Mechanical Engineering Department with bachelor’s and master’s degrees, recently retired as president of Lockheed Martin Aeronautics Company after a 40-year career in the aerospace industry. [read more]
Mr. Hancock, along with Phil Price and Karen P. Tandy, were honored at a reception and dinner on November 3 at the Frazier Alumni Pavilion. [read more]

T-STEM Center

The Center for Engineering Outreach led by Drs. Dean Fontenot and John Chandler and in collaboration with Provost Dr. William Marcy; Bob Hickerson, chief operating officer for Texas Tech's higher education teaching sites; Susan Talkmitt from the Howard Hughes Medical Institute/Center Integrating Science Education and Research, College of Education; and Kristin Whittenburg at the Region 17 Education Service Center led the effort to obtain a T-STEM (Texas Science, Technology, Engineering, and Math) center, funded by the Texas Education Agency. Only five centers were funded and each will provide science, technology, engineering, and math (STEM) curricular materials and training to Texas T-STEM academies as well as middle and high school teachers. The Texas Tech T-STEM Center will focus on the integration of engineering design principles into 6-12 education using that as a framework for students to learn math, science, and engineering principles. The grant of over $1 million over the first two years recognizes that the work of the Center for Engineering Outreach has been an example of best-practices for integrating engineering into school curricula.

www.tstem.ttu.edu

Defense Appropriations for Energy

President George W. Bush signed the Department of Defense Appropriations Act, 2007 in September. This bill provides two appropriations that will greatly affect the College of Engineering. The NanoTech Center will receive $1 million for its research in applied nanophotonics - the use of new behavior of materials at the nanoscale to generate and manipulate light. This new program builds on the current expertise of the TTU NanoTech Center in optical devices, microelectronics, and micro-electro-mechanical systems (MEMS). The Center for Pulsed Power and Power Electronics will receive $1 million to strengthen the

First Year Experience

The College of Engineering has formed an ad hoc committee to review the first year experience of its students. The committee members are charged to review the experience of the engineering, computer science, and undecided majors during their first year and suggest changes that can be made to the curriculum, student services, and supplemental programming that could improve student academic success, satisfaction with the college, and retention in these majors. The committee members will provide preliminary recommendations to the COE Executive Committee by May 2007, with the intention of implementation by the fall 2008 semester. Committee members are: Drs. Walt Oler, chair (mechanical), Per Andersen (computer science), Dave Ernst (engineering technology), Tanja Karp (electrical and computer), John Kobza (industrial), Jeremy Leggoe (chemical), Ken Rainwater (civil and environmental), Jeff Woldstad (dean's office), and Margret Ziaja (petroleum).
center's infrastructure and explore ways to defeat improvised explosive devices (IEDs).

Dean's Council

Dean's Council new members are: James Gattis, '66 civil engineering (executive vice president and CEO, AMEC Paragon, Houston); Todd Knowlton, '91 computer science (president, Smooth Fusion, Inc., Lubbock); Wayne Richards, '81 mining engineering WVU (executive vice president, Vetco International, Houston); and Dr. Jeff Wilde, '85 engineering physics, '92 PhD Stanford (entrepreneur, Morgan Hill, Calif.). The Dean’s Council met on October 6 in Lubbock.

WISE Recognized

Solutions for Our Future recently publicized the role of Texas Tech’s Wind Science and Engineering Research Center’s (WISE) expertise in designing and testing storm shelters to protect people from the effects of wind damage. Solutions for Our Future is a national initiative to establish a dialogue about the critical role colleges and universities play in serving the public, solving pressing societal needs, and preparing people for our country’s future. The initiative is managed by the American Council on Education, the coordinating organization for all of higher education, based in Washington, D.C.
 www.solutionsforourfuture.org

Summit on Energy Sustainability

The College of Engineering hosted a two-day Summit on Energy Sustainability September 13-14. It addressed technical and scientific challenges and opportunities facing the region’s energy industry including nuclear, coal, wind, and biofuels, as well as policy and economic development matters. Texas Railroad Commissioner Michael Williams put it succinctly, “This is not your grandfather's energy business." As growing world demand strains traditional oil and gas supplies, resources such as wind, sunlight, food crops, and coal have gained new notoriety as energy alternatives. Dr. Dan Arvizu, director of the National Renewable Energy Laboratory, highlighted the hard truth that the U.S. has 5 percent of the world population and consumes 25 percent of the world's energy. To access a sampling of the presentations, visit the Web site: www.coe.ttu.edu/energysummit

Advancing the College

It’s no secret that higher education engineering programs across the nation compete for the most qualified graduate students. Attracting the most talented students to study with our faculty is one of the goals of TTU’s College of Engineering, and that contributes to the overall quality and growth of the college. These top quality graduate students and the research they participate in are an integral part of our College’s mission to train engineers for the world’s future.
part of the College of Engineering’s reputation in academia. Not only is our reputation enhanced but also we enjoy increased exposure to industry leaders and the ability to attract world-class faculty when our student body is at the highest level.

Director of Development
Dr. Kevin Ludlum (806-742-3451)

Faculty Awards

The Characterization/Reliability/Material and Surface Science category of the Sandia Design Competition, won by the leadership of Dr. Tim Dallas, electrical engineering associate professor, and student Jay Friend, was featured in the Summer 2006 issue of Sandia National Laboratories magazine, Sandia Technology. “The Sandia Design Competition is the centerpiece of our MEMS curriculum. We believe the educational benefits are excellent,” said Dallas.


The Society of Plastics, Engineers Polymer Analysis Division, has named Horn Professor of Chemical Engineering Dr. Gregory B. McKenna as recipient of its 2007 Founders’ Award. The award is to recognize outstanding achievement in the field of polymer analysis through technical accomplishment, leadership, and educational and professional activities.

Students

Society of Petroleum Engineers

In late September, 50 petroleum engineering students attended the annual technical conference and exhibition of the Society of Petroleum Engineers (SPE) in San Antonio. At that meeting, the TTU chapter once again won the Outstanding International SPE Student Chapter designation. Congratulations to students and faculty!

Jason Kincaid,
SPE Student Chapter President

Donations

The Sybil B. Harrington Living Trust has donated $2 million to the TTU College of Engineering to establish the Harrington Endowed Graduate Fellowships for the Study of Engineering. This generous endowment will support four graduate students pursuing their master’s degrees in engineering at Texas Tech. As we extend our mission and reach for new levels of excellence, gifts such as this that support graduate fellowships become critical to attracting world-class talent to the College of Engineering at Texas Tech University.

Burlington Northern Santa Fe Railway (BNSF) has announced a four-year, $750,000 scholarship fund to support senior TTU engineering majors who have worked as interns for the company. The gift will provide scholarships of $12,500 to 15 seniors in the College of Engineering, targeting especially first generation and low-income students. Students must work as interns for the company the summer of their junior year to be eligible for the support. BNSF representatives demonstrated their locomotive simulator at the Mechanical Engineering building on October 6.
Yahoo! recently announced that it will donate $250,000 to the TTU Center for Engineering Outreach over the next two years. The donation, which will fund K-12 outreach activities, is made in honor of Edward E. Whitacre Jr. ('64 industrial engineering), chairman of the board and chief executive officer of AT&T.

Texas Instruments, Inc. made donations totaling $553,000 for program support as well as to assist in funding industrial master's scholarships in two programs of the Electrical and Computer Engineering department: the Advanced Electronic Systems Engineering program and the Program for Semiconductor Product Engineering.

Grants

NASA recently made an award for the project, "Control Software, Water Reclamation, Nanotechnology, Autonomous Inspection and Salad Crop Culture." The College of Engineering portion is $864,511. Principal investigators are Drs. James Smith (professor, industrial engineering), Daniel Cooke (computer science professor), Michael Gelfond (computer science professor), Karlene Hoo (associate vice president for research and chemical engineering professor), Andrew Jackson (associate professor, civil and environmental engineering), Eric Sinzinger (assistant professor, computer science), Audra Morse (assistant professor, civil and environmental engineering), Nelson Rushton (assistant professor, computer science), Iris V. Rivero (assistant professor, industrial engineering), and Darryl James (associate professor, mechanical engineering).

Alumni

Renée Dupuis Green graduated from TTU with a degree in petroleum engineering in 1981. She was recently named Bexar County (Texas) county engineer, the first female to hold that position. She oversees a $70 million, 250-employee Public Works department that is responsible for the maintenance of all the county's roads and bridges, and the construction of new ones. Her
Robert Black, '58, retired Texaco, Inc. senior vice president, has been elected to the Nova Energy Holding, Inc. board of directors, headquartered in Houston. Mr. Black graduated from TTU in 1958 with a petroleum engineering degree. He has been honored by TTU with the Distinguished Alumnus Award (1979) as well as the Distinguished Engineer Award (1980). He also serves on the Texas Tech University System Board of Regents. Story is featured in the November/December 2006 issue of the TTU alumni magazine, Texas Techsan.

Natalie Y. Harvill, '97 civil, received the Leadership in Energy and Environmental Design Accredited Professional (LEED AP) designation. LEED provides a complete framework for assessing building performance and meeting sustainability goals, emphasizing state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. She also recently received corporate associate standing in her firm - Parkhill, Smith & Cooper, Inc. in Lubbock.

Lubbock-based Parkhill, Smith & Cooper, Inc., an engineering and architectural design firm, named new principals. John T. Hamilton, '93, '99, graduated with a chemical engineering bachelor's degree followed by a master of business administration. His area of expertise is the design of transportation related projects (airport, highway, and rail). He is joined by Troy D. Swinney, '86, an electrical engineering technology graduate. The firm provides engineering services for educational, commercial, industrial, institutional, medical, and governmental facilities. In that capacity, they recently
Hamilton Swinney upgraded the life safety systems of several TTU dormitories.
http://www.team-psc.com/

Dr. Samuel H. Huang ('95 PhD industrial), associate professor of industrial engineering at the University of Cincinnati, received the 2005 Robert A. Dougherty Outstanding Young Manufacturing Engineer award from the Society of Manufacturing Engineers. One of only 10 recipients worldwide, Dr. Huang was recognized for his contribution to manufacturing research and education.

C. Clayton Yeager ('64 BS; '65 MS, civil) retired as president of Parkhill, Smith and Cooper, Inc. on October 1 after 41 years of dedication to the engineering profession. He has been president of PS&C for 20 years, and during his tenure the firm grew to become the 30th largest design firm in Texas. He was named Distinguished Engineer by the College of Engineering in 1996.

Engineering Our Future, the Texas Tech University COE quarterly e-newsletter, will be posted online on a quarterly basis.