



College of Engineering Today

July 2006 Edition

WELCOME TO THE COLLEGE OF ENGINEERING E-NEWSLETTER!

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NEWS

Senator Kay Bailey Hutchison (R-TX), a member of the Senate Appropriations Committee, announced on June 29 that the committee has approved the Fiscal Year 2007 Energy and Water Appropriations bill. The bill includes \$1.5 million requested by Sen. Hutchison for the **Texas Tech University Great Plains Wind Power Test Facility** and will now be voted on by the full Senate. "Wind is a reliable, economically-viable and environmentally-friendly power source," Sen. Hutchison said. "Texas derives more than 10 percent of its electricity from wind power. This funding will support existing wind research initiatives and give Texans access to more alternative energy sources." The wind test facility will build

on the significant measurement and analysis capabilities of Texas Tech University and continue to serve as a national resource for the testing and analysis of grid-connected wind turbines.

www.senate.gov/~hutchison/prl783.htm



Atila Ertas

TTU was a co-sponsor of the Society for Design and Process Science Integrated Design and Process Technology (**IDPT**) Ninth World Conference June 25-30 in San Diego, Calif. Dr. Atila Ertas (Mechanical Engineering professor) was chair of the program committee and was instrumental in the overall planning process. Drs. John Borrelli (dean, Graduate School), Pamela A. Eibeck (dean, College of Engineering), Atila Ertas, T. T. Maxwell (professor, Mechanical Engineering), and Stephen Ekwaro-Osire (associate professor, Mechanical Engineering) were participants in several of the conference events. There was a special session discussion on collaboration between TTU, UT Tyler, and universities in India, Japan, and Turkey. Over 150 scientists and engineers attended. www.sdpsnet.org

Energy Sustainability is the title of a two-day forum (September 13 and 14) organized by the College of Engineering to address fossil-based fuels, biofuels, energy/water, emerging technologies, electricity/nuclear/wind, and policy and economic development issues. Organizers include Drs. James Chapman, Michael Giesselmann, Lloyd Heinze, Karlene Hoo, Naz Karim, Darryl James, and Andy Swift. Two hundred attendees are expected at the International Cultural Center, including representatives from universities, industry, economic development agencies, nonprofit organizations, and government agencies.

www.depts.ttu.edu/coe/energysummit/

Dan Cooke, computer science professor, was recently named to the editorial board of the International Journal of Semantic Computing and World Scientific Publishing (IJSC). The IJSC addresses the computing technologies (e.g., artificial intelligence, natural language, software engineering, data and knowledge

engineering, computer systems, signal processing, etc.) and their interactions that may be used to extract or process the contents and semantics of multimedia, texts, and services as well as structured data.

Clarification from June issue:

According to a new posting by the National Science Foundation, the department of **Chemical Engineering** is ranked 46th in the country in terms of research expenditure. Note Table B-48 on page 203 at:

www.nsf.gov/statistics/nsf04330/

This is a national ranking compiled by Dr. Donna Nelson (AAAS Fellow 2005, Ford Foundation Fellow 2003-2004, Guggenheim Fellow 2003), associate professor University of Oklahoma, that also gives the breakdown for the diversity related data. See:

cheminfo.chem.ou.edu/faculty/djn/diversity/Faculty_Tables_FY05/ChemEngTable2005.pdf

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 (executive vice president, Vetco International; Houston); and Jeff Wilde (consultant, Morgan Hill, Calif.). The next Dean's Council meeting is October 6.



Karlene Hoo, chemical engineering professor and associate dean of research, was the technical program chair of the 2006 American Automatic Control conference held in Minneapolis, Minn. June 14-16. There were over 1,100 attendees, a record number, who participated in three days of 20 technical parallel sessions three times per day. In addition, there were five special sessions on topics such as: "Early Career Development (Role of NSF, NASA, AFOSR, AACC)," "Process Control and SCADA Security," and "Publication, the Public University and the Public Interest."



Larry Tanner, wind engineer and research associate in civil engineering, participated in a June 1 interview on CNN about hurricanes and wind safety.

transcripts.cnn.com/TRANSCRIPTS/0606/01/acd.01.html

After determining that faulty anchoring was a major contributor to the loss of 19 lives in a **2005 tornado** at an Indiana mobile home park, Larry Tanner's report for the National Institute of Standards and Technology called on local governments to "adopt, implement, and inspect to ensure a strict compliance" with installation standards laid out in the National Fire Protection Association's, Mobile Home Installation Standard 2005 Edition.

www.wind.ttu.edu/downloads/20060602/EvansvilleTornadoReport5X30X06.pdf

www.courierpress.com/news/2006/jun/09/tougher-mobile-home-anchoring-standards-urged/

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DONATIONS

The AT&T Foundation contributed \$250,000 to complete its three-year \$1,000,000 pledge to the Dean's Chair in Engineering Endowment. The primary objective of the AT&T endowed chair is to provide funds that will allow the College of Engineering the flexibility to strive for continued excellence. AT&T's establishment of professorships in industrial and electrical will be complete in 2007 when two final \$250,000 donations are received.

Yahoo! pledged a generous donation of \$250,000 for the COE Center for Engineering Outreach Support Fund Pre-college Engineering Academy. These funds will go toward curriculum development, teacher training, and after-school programs, providing teachers the tools needed to attract these students to the field of engineering.

Mrs. Ouida Smith donated \$50,000 toward her goal of \$150,000 for a new endowment to be called the "Carlyle and Ouida Smith Endowment for Dual Degree Students." The recipients must be pursuing a dual degree in civil engineering and architecture.

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GRANTS AND CONTRACTS



The National Science Foundation (NSF) Division of Materials Research has offered **Greg McKenna**, Horn professor of chemical engineering, a Special Creativity Award that extends his current grant by one additional year. As stated in the NSF Grant Proposal Guide, "the objective of such extensions is to offer the most creative investigators an extended opportunity to attack adventurous, "high-risk" opportunities in the same general research area but not necessarily covered by the original/current proposal." This specific research project is titled, "Structural Recovery and Physical Aging in Plasticizing Environments."

The Community Foundation of Abilene gave two grants totaling over \$58,000 to support the research of computer science faculty Drs. Jason Denton and Rattikorn Hewett of the TTU College of Engineering Abilene Higher Education Teaching Site. Dr. Denton is using his research grant to further develop new techniques used by computers to detect and identify rapidly moving objects. Dr. Hewett is conducting research to develop a semi-automated risk assessment tool to help avoid design flaws and undesirable consequences in software.

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STUDENT ACCOMPLISHMENTS

Dewey Buescher, doctoral student in chemical engineering, was invited to attend the Healthcare Systems Engineering Workshop, June 15-16, hosted by the Purdue University Regenstrief Center for Healthcare Engineering, the National Science Foundation, and the National Institute of Biomedical Imaging and Bioengineering, in Washington, D.C. The purpose of the workshop was to envision an agenda for future healthcare systems research. www.purdue.edu/dp/rche/hcse/

Petroleum engineering graduate student **Olugbenga Fasesan** attended the American Society for

Engineering Education National Conference and Exposition in Chicago June 18-21. He presented a paper titled "Liquid Additives Control Waste and Reduces Landfill Dumps." Fasesan is a PhD candidate and will receive his degree in petroleum engineering this August. For more information on the conference or the paper presented, go to: www.asee.org

Senior chemical engineering student **Cade Hodgson** has been awarded a scholarship from the Southwest Chemical Association. He will travel to Houston on August 3 to accept it. www.swchemical.com

Scott Legler, electrical engineering and business administration double major, is currently participating in the Rawls College of Business International Engineering Program in Norway. He will receive a certificate in entrepreneurship management and marketing. Not only do students have the opportunity to work with highly qualified and international-minded professors but also they gain valuable cultural experience. ibs.ba.ttu.edu/TTUstudent/Study_Abroad/Undergraduate/Summer_Programs/Norway/norway.htm

Iwa Tesalonika traveled to Calgary, Canada June 13-15 to present a paper at the Canadian International Petroleum Conference. The title of the paper is "Ground-Water Contamination Reduction by Use of Poz Cementing." He is a PhD candidate and is expected to receive his petroleum engineering degree in spring 2007. Additional information on this conference can be found at: www.petsoc.org/CIPC_2006/

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ALUMNI RECOGNITION

Blake Augsburg, MS '89, electrical engineering, has been named president of the Harman Pro Group based in Northridge, Calif. He was formerly president of its subsidiary, Crown International, a leading manufacturer of amplifiers, microphones, and systems control products for professional audio markets worldwide.

www.harmanpro.com

Ben Calloni, PhD '97, has been selected as a Lockheed Martin Technical Fellow. Dr. William Marcy was his mentor during doctorate studies.

Paul McNeill, '03, worked as a chemical engineer with Dallas Water Utilities until this past May when he left his comfortable life to spend two years in northern Peru where he hopes to bring plumbing and running water to residents of two poor villages. He is undertaking this project strictly on his own.

www.missionmcneill.com

Nathan Nash, '05, civil engineering, was featured in the Student Affairs scholarship publication, *Path to Preeminence*. He is the outgoing president of the Student Government Association and by virtue of that position, he received scholarship support. He said, "Receiving this scholarship has allowed me the financial support to focus more on my academics."

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EVENTS OF INTEREST



Gene Frantz, MBA '82, principal fellow of Texas Instruments' Digital Signal Processing Group, and his daughter Allison, an engineer with TI, spoke to over a hundred students and faculty, and nine high school girls visiting TTU to participate in **WE CAN: Women in Engineering: Curriculum, Applications, and Networking** program, June 4-16.

Gene and Allison pointed out several areas where future engineers are needed to make significant contributions, including the fields of transportation and health. Gene was program manager for the Speak & Spell children's toy of the '70s. Fox 34 News interviewed one of the girls for their evening news broadcast.

www.ee.ttu.edu/ece2/wecan/wecan.html

www.ti.com/corp/docs/press/company/2005/c05023.shtml

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PUBLISHED

"Add Something 'Note' Worthy to your Next Bot" by computer science lecturer and research associate Michael Helm and senior student Jonathan Wheeler is a featured article in the June issue of SERVO magazine. The article comes from an embedded system design class assignment (*Servo Magazine*, June 2006, 46-67: www.servomagazine.com).

Chemical and Bio-Process Control, third edition, authored by Drs. James B. Riggs and M. Nazmul Karim, has been published (Lubbock, Tex.: Ferret Publishing, 2006). The textbook is the first to deal in a significant fashion with the control of bio-process systems, and it was designed specifically for undergraduate students. New examples have been included to aid in understanding the material, self-assessment questions and problems are included with answers in the appendix, homework is ranked based on its degree of difficulty, and a complete set of new terminology appears at the end of each chapter.

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CALENDAR OF EVENTS

- August 12 - Summer Commencement, 9:00 a.m. United Spirit Arena
- August 24 - Fall Faculty and Staff Meeting, Lankford Lab, 3:00 p.m. to 5:00 p.m., Wine and Cheese Reception to follow
- August 24 - New Faculty Orientation, Library, 8:00 a.m. to 2:30 p.m.
- August 31 - FE Exam scheduling deadline, Applications available in Room 102, Engineering Center, or [online](#)

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IS YOUR NEWS LISTED HERE?

If not, submit it through your department's editor:

Civil and Environmental	Andrews, Glenna
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Petroleum	Blackmon, Joan
Computer Science	Digby, Mysti
Mechanical	Hernandez, Carmen
Chemical	Hudson, Jan
Engineering Technology	McMurray, Jodi
Electrical and Computer	Willingham, Sandi
Industrial	Wilson, Terry

The COE e-newsletter will be posted online on the 5th of each month. News submission deadline is the 28th of each month.

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