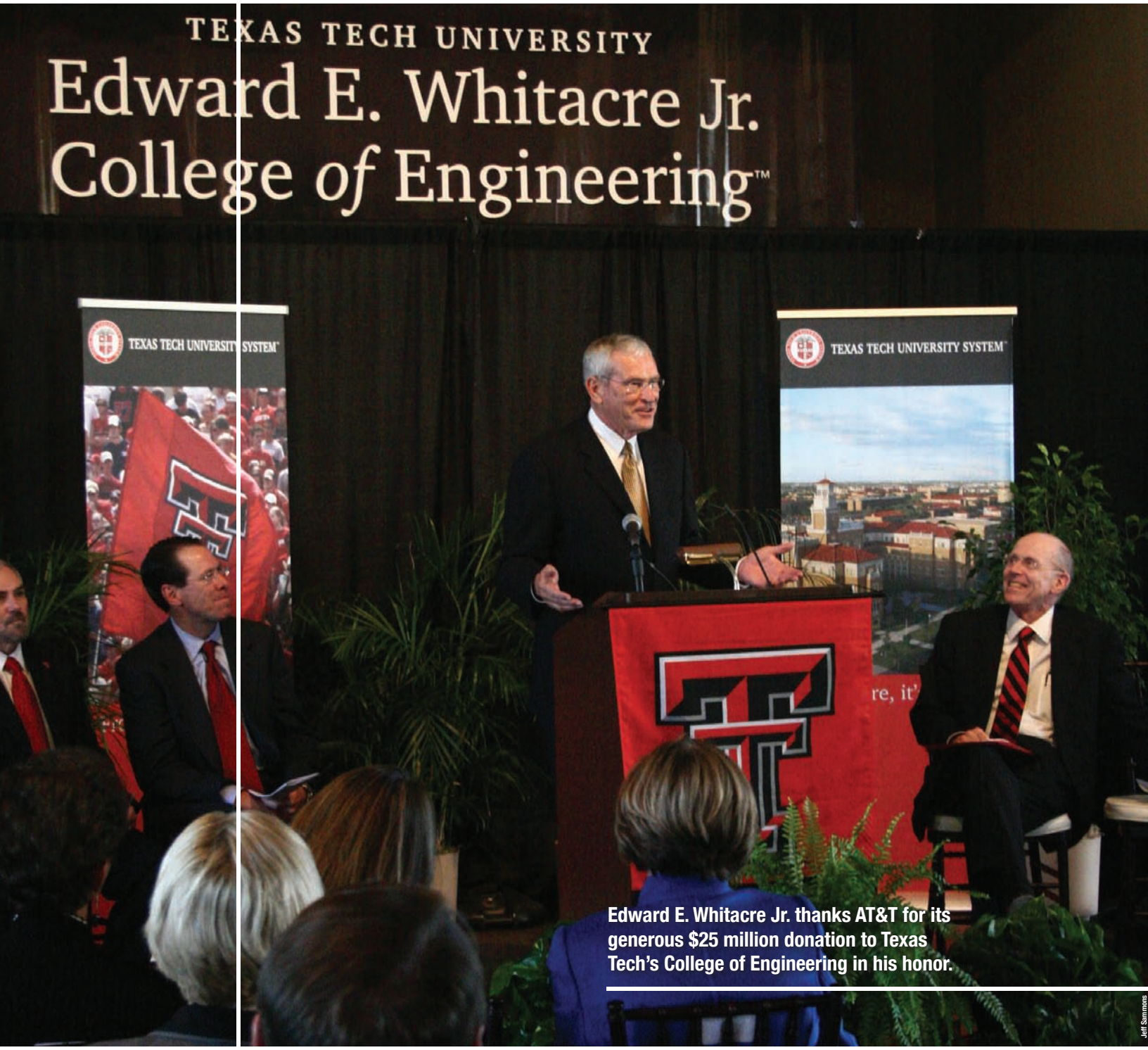
Engineering *Our* Future

Fall 2008

Texas Tech University - Edward E. Whitacre Jr. College of Engineering



Edward E. Whitacre Jr. thanks AT&T for its generous $25 million donation to Texas Tech's College of Engineering in his honor.

Jeff Simmons

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Dean's Report

Texas Tech University
Dean, Whitacre College of Engineering
Pamela Eibeck, Ph.D., P.E.

It is an honor for the College of Engineering at Texas Tech University to be named for our good friend Edward E. Whitacre Jr. We are so proud to be associated with such a great man. We are also proud to have the support of his friends and AT&T through a generous $25 million donation (page 4).

Ed Whitacre's attitude and accomplishments represent exactly what our industry partners are looking for: highly competent and diligent students who are ready to engineer the world.

A new display has been installed in the Electrical and Computer Engineering Building (page 5) in honor of Ed Whitacre. The display features the story of his career at Southwestern Bell, SBC, and AT&T. Students at the display are often amazed at Ed's accomplishments—despite being a first-generation college student.

We are also very thankful to Bob Herd for his donation of $15 million to the petroleum engineering department in August (page 3). His gift comes at a time when petroleum engineers are in high demand, and this generous donation will help us continue to produce hard-working, highly qualified petroleum engineers.

Our *U.S. News* ranking has moved up again this year; the undergraduate engineering program has increased from 85th to 78th (page 8).

We are proud of Jeff Morris, a 1974 chemical engineering alumnus, who has been named a Distinguished Alumnus of Texas Tech (page 6). Jeff is the president and CEO of ALON USA, a refining and marketing company based in Dallas, Texas. He is also one of our Distinguished Engineers. Congratulations to Jeff on this award.

The future is promising for the Whitacre College of Engineering, and through our friends' and partners' generosity, we will continue to enhance the outstanding academic and research opportunities that our students, faculty, and industry partners enjoy.

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News

Bob L. Herd Donates $15 Million Gift to Petroleum Engineering

Texas Tech University recently accepted a $15 million donation from alumnus Bob L. Herd to the Department of Petroleum Engineering. The money will be used to endow the department. Herd's donation will result in the first naming of an academic department on campus, the Bob L. Herd Department of Petroleum Engineering.

Herd, a 1957 petroleum engineering graduate, is the founder and operator of Herd Producing Company in Tyler, Texas. He was named a Texas Tech Distinguished Alumnus in 1994 and was recognized as a Distinguished Engineer in the Whitacre College of Engineering in 1995. Herd credits Texas Tech for his success.

"My family and I are pleased that we are able to help Texas Tech provide the educational foundation for future petroleum engineers as it provided me many years ago," Herd said. "It was this education that made this donation possible."

Chancellor Kent Hance praised Herd for making the education of future generations a priority.

"We are honored to name our successful petroleum engineering department after one of our distinguished graduates," Hance said. "The generosity of alumni like Mr. Herd allows our institutions to continue providing excellent educational opportunities."

"We are proud of the exceptional success of our alumnus in the petroleum industry," said Pamela Eibeck, dean of the Whitacre College of Engineering. "His generosity to the department is transformative and will allow the program to provide one of the nation's best quality petroleum engineering educations to our students into the future. We are truly grateful for his willingness to give back to the petroleum engineering department."

Department Chairman Lloyd Heinze says Herd has made a significant mark on the petroleum industry.

"He set a high standard for others to give to the industry as well as back to Texas Tech. We are proud to call him one of our Distinguished Engineers," said Heinze.

Texas Tech produces 10 percent of the U.S. petroleum engineering graduates each year. The graduate program in the department is ranked in the top ten petroleum engineering graduate programs in the United States by *U.S.News & World Report*. E

(L-R) Guy Bailey, Texas Tech president; Lloyd Heinze, chairman of the Bob L. Herd Department of Petroleum Engineering; Pamela Eibeck, dean of the college; Kent Hance, Texas Tech chancellor; Bob L. Herd; Pat Herd; Michael Herd; and Kelli Herd

News

College of Engineering Named for Former AT&T CEO Edward E. Whitacre Jr.

With a reported worldwide shortage of engineers and graduates in related fields, Texas Tech University and AT&T Inc. are doing their part to ensure a first-class engineering education for students in the coming decades.

On Nov. 12, administrators acknowledged gifts of $25 million from AT&T and friends of the company to the College of Engineering in honor of Edward E. Whitacre Jr., former Texas Tech regent and former chairman of the board and CEO of AT&T. Officials also announced the college will be named the Edward E. Whitacre Jr. College of Engineering.

"America's future competitiveness depends on the strength of our nation's educational system," said Randall L. Stephenson, AT&T chairman and chief executive officer. "Ed Whitacre is a long-time and strong advocate for education at every level. I can't think of a better way to recognize his leadership and support of education than by establishing a lasting legacy with the Whitacre College of Engineering at Texas Tech."

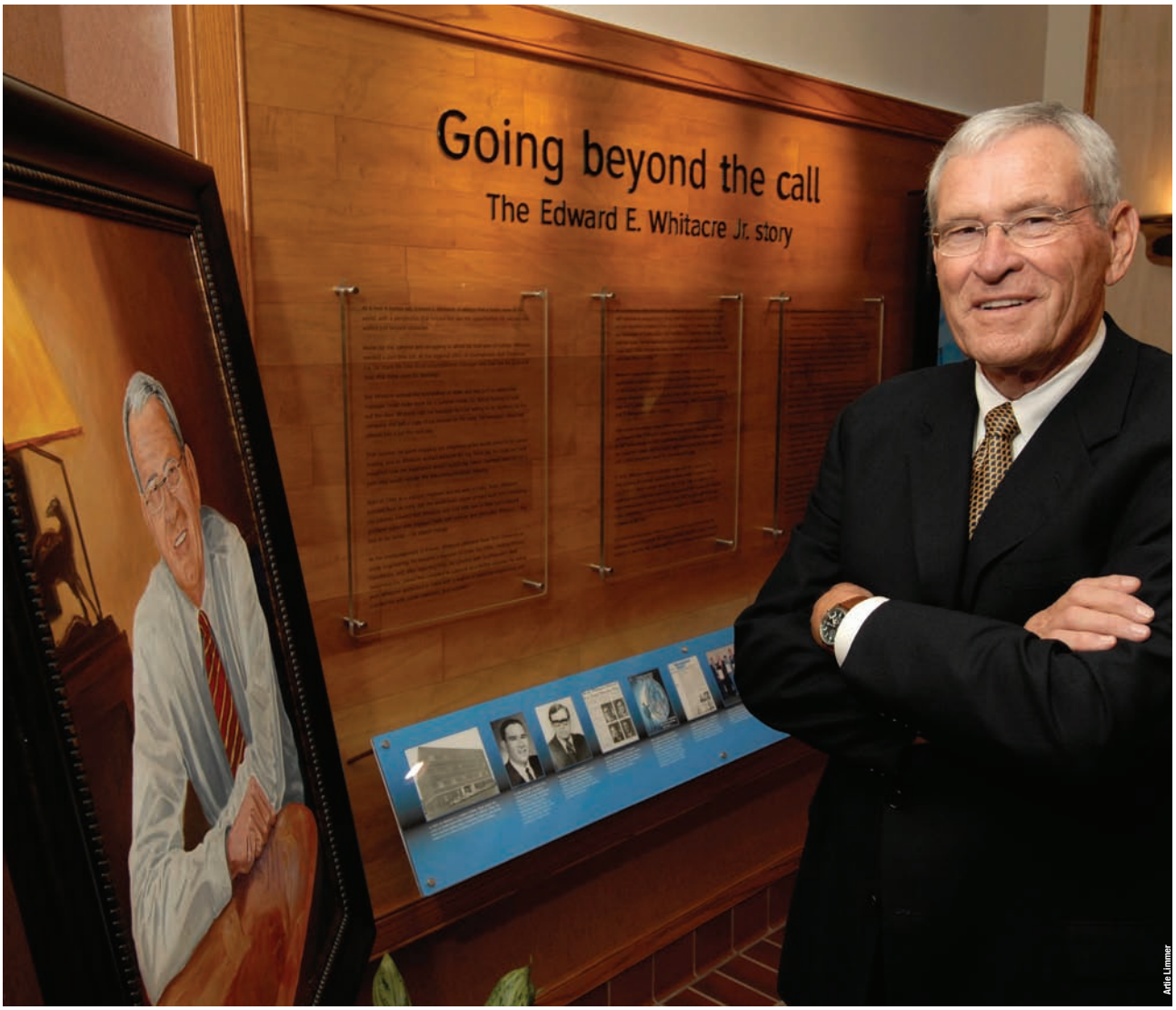
Whitacre, a 1964 Texas Tech industrial engineering graduate, credits much of his success to the quality education he received at Texas Tech, and it is his dream that future students have the same opportunity.

Chancellor Kent Hance, a long-time friend of Whitacre, thanked AT&T for its gift and for the opportunity to honor the outstanding businessman and alumnus.

"Texas Tech University has no better friend or loyal supporter than Ed Whitacre," said Hance. "AT&T's gift will allow the Edward E. Whitacre Jr. College of Engineering to remain on the cutting edge of engineering education by positioning it to attract a diverse and quality student body, and to educate future college students about possible engineering careers."

In 1985 Whitacre was Distinguished Engineer of the Whitacre College of Engineering. He was appointed to the Board of Regents in 1993, and was chairman from 1995-1998. In 1996, the Rawls College of Business honored him with the Outstanding Chief Executive Award.

(L-R) Randall L. Stephenson, Edward E. Whitacre Jr., and Dean Pamela Eibeck celebrate the naming of the college



Arde Lummer

Edward E. Whitacre Jr. stands at the "Going beyond the call" display in the Electrical and Computer Engineering Building, a display that tells the story of Ed Whitacre's time at Texas Tech, Southwestern Bell, SBC, and AT&T

Whitacre was instrumental in securing some of the largest gifts to the university, including contributions from the SBC Foundation to create endowed scholarships and endowed faculty positions at the university. At the request of then-Chancellor John T. Montford, he served as national campaign chairman for Texas Tech's Horizon Fundraising Campaign.

"I've had the unique opportunity to work for Mr. Whitacre as chancellor of Texas Tech and as a part of AT&T," Montford said. "His drive and winning spirit embodies everything associated with this university and its world-class engineering program."

A native of Ennis, Texas, Whitacre began his career at Southwestern Bell Telephone in Lubbock in 1963. He progressed through a series of assignments in the company's operational departments in Texas, Arkansas, and Kansas from 1963 until 1982.

From 1982 to 1985, Whitacre headed Southwestern Bell's Kansas Division, and then moved to corporate headquarters where he served as group president, vice president-revenues and public affairs, and vice chairman and chief financial officer. In October 1988, Whitacre was made president and chief operating officer, responsible for the company's six primary subsidiaries. In 1990, he became chairman and CEO of SBC, which changed its name to AT&T in 2005 after SBC acquired AT&T.

During Whitacre's 1990-2007 tenure as chairman and chief executive officer, the company differentiated itself through diversification, a disciplined growth strategy, and strategic mergers and acquisitions. Whitacre retired in 2007. *E*

Alumni

Alumni Association Names Jeff D. Morris a Distinguished Alumnus

The Texas Tech Alumni Association honored Jeff D. Morris, Dunia A. Shive, and Dale V. Swinburn as Distinguished Alumni at their annual reception and dinner on Nov. 7 at the Merket Alumni Center

Morris' background in chemical engineering and leadership has well prepared him to serve in his current position as the president and CEO of ALON USA, a refining and marketing company based in Dallas, Texas.

Morris, B.S.Ch.E. '74

After graduating from Texas Tech in 1974 with a bachelor's degree in chemical engineering, Morris developed processing operations. During this time, he earned 10 U.S. and six foreign patents in polymer processing and production. He also published on polystyrene in the "Encyclopedia of Chemical Processing and Design." As a result of his research and development efforts, he was able to help design and build the world's largest polystyrene plant in Baton Rouge, La.

In 1989, Morris began working in the refining field. He held senior management roles at FINA refineries in Port Arthur and Big Spring, Texas. With his efforts, the Big Spring refinery is one of the most reliable in the country, processing 50,000 barrels of crude oil daily. As a result of his success, Morris was made responsible for all of FINA's downstream operations.

In 2000, Morris joined ALON USA, which formed when Alon Israel Oil Co. Ltd. purchased FINA Inc.'s downstream operations. Under his leadership, ALON USA has flourished, doubling its size with the acquisition of the Paramount and Edgington refineries and associated asphalt business in California in 2006. His concern for energy and environmental policy is exhibited by ALON's plans in California to improve these refineries by doubling their fuels production while at the same time reducing the greenhouse emissions for the plants. ALON intends to convert these plants to the lowest emissions refineries in the U.S., per barrel of fuel produced.

Texas Tech recognized Morris's accomplishments with prestigious honors. He was named a Distinguished Engineer by the Whitacre College of Engineering in 1997. He was also inducted into the Chemical Engineering Academy in 2004. *E*

Cecil Pray, Civil Engineering Alumus Passes Away at 101

Courtesy: Lubbock Avalanche-Journal

Cecil Pray died on Sept. 15, 2008 from complications of pneumonia; he was three months shy of his 102nd birthday. He was born to Bert and Fannie Pray on Dec. 17, 1906, in Blaine County, Okla. The Pray family was farmers, living both in Oklahoma and Texas. By the time Cecil finished high school, the family was in Brownfield.

Pray, B.S.C.E. '31

Cecil enrolled at Texas Technological College as a civil engineering student in 1925, the year it opened. He met and married Mildred Nail on Sept. 17, 1927. He alternated between work and school until graduating in 1931. His career was spent with the City of Lubbock, Texas Highway Department, and the Civil Aeronautics Administration.

In 1953, he returned to Lubbock and become a partner with Elliott Taylor in Pioneer Pavers. The company was sold and Cecil retired in 1970. That same year, he was asked to supervise the materials testing lab for the construction of the DFW airport. *E*

Programs

Dean Pamela Eibeck and Hoang Duong Hung, vice rector of the DaNang University of Technology, shake hands on the establishment of the joint academic activities

Vietnamese University Agrees to Joint Engineering Programs with Texas Tech

A delegation of Vietnamese officials representing the University of DaNang and DaNang University of Technology has signed a Memorandum of Understanding to establish joint academic activities with the Whitacre College of Engineering.

The universities agreed to exchange faculty and students and could develop joint master's degree programs in engineering.

The DaNang University of Technology is located within the University of DaNang, which is one of the five leading national and regional universities in Vietnam.

The agreement builds upon the diplomatic work of the Texas Tech Vietnam Center and Archive, which is home to the largest store of Vietnam-related materials outside of Washington, D.C. Texas Tech created a joint graduate degree program last April to train all of Vietnam's future diplomats. Additionally, Texas Tech has hosted delegates from the Open University of Ho Chi Minh City. *E*

Healthcare Engineering Option for Master of Engineering Students

A program in healthcare engineering is now available at Texas Tech to meet the growing demand for engineers trained to apply the principles of engineering, health sciences, and business administration. The program seeks to instruct Master of Engineering students on the effective management of the physical, technological, and supports services of healthcare facilities, as well as the optimization of the safety, quality, efficiency, accessibility, and cost effectiveness of healthcare delivery processes and healthcare systems.

Utilizing the unique resources available at the Lubbock campus, Texas Tech is one of the first institutions offering a degree option in healthcare engineering.

For more information, visit:
www.depts.ttu.edu/HealthcareEngineering *E*

Texas Tech Students Minor in Nuclear Engineering

Students in the Whitacre College of Engineering now have the ability to minor in nuclear engineering without leaving the Lubbock campus. This program is available through the Big 12 Engineering Consortium, and features courses in reactor engineering, radiation protection, and energy systems.

The nuclear engineering courses have been especially adapted to ensure the same quality of education as an on-campus course. These courses are set within the confines of a semester, and students are required to meet deadlines as outlined by the professor.

The Whitacre College of Engineering will be starting a program in nuclear engineering in the future.

For more information on the nuclear minor, visit www.coe.ttu.edu *E*

News

U.S.News & World Report Ranks Undergraduate Engineering Programs

The educational experience in Texas Tech University's Edward E. Whitacre Jr. College of Engineering is only getting better, according to *U.S.News & World Report's* 2009 college rankings.

In the magazine's yearly assessment of America's best schools, Texas Tech's undergraduate engineering program is now tied for 78, up from an 85 ranking for 2008 and from rankings in the 90s prior to that.

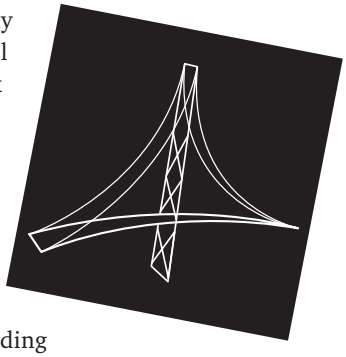
Pamela Eibeck, dean of the college, acknowledged an increase in national visibility as more faculty write proposals and papers and more of Texas Tech's programs and research gain high-profile status.

"We appreciate that the *U.S. News* ranking verifies what we have known all along: Texas Tech's Whitacre College of Engineering provides one of the best engineering educations in the nation," said Eibeck. "Our dedicated faculty, outstanding laboratories and supportive environment provide a superior engineering education, allowing our graduates to become technology leaders throughout the world." *E*

ConocoPhillips Academic Success Bridge Program Completes First Year

Near the end of summer break, 52 entering freshmen students, 11 upperclassmen mentors, and supporting faculty worked together to "bridge" the gap between high school and college.

These 52 entering freshmen learned important study skills, met with potential employers, and earned six hours of college credit.



The ConocoPhillips Academic Success Bridge Program aims to increase the enrollment and retention of engineering students including first generation college students, minority students, and/or students from lower socioeconomic backgrounds.

More information on the Bridge program can be found at www.coe.ttu.edu/bridge. *E*

(L) Aubrey Spear (B.S.C.E. '85), director of water utilities for the City of Lubbock, examines the gravity-based water filtration system that ConocoPhillips Bridge students (L-R) Matt Crabtree, Eric Harding, Kyle Baker, Elizabeth Rice, and Jillesha Thawani used to purify playa lake water.

John Rivera

Jeff Summons

The "EOC" is a place for students to get career advice, prepare for a job fair, or find study abroad opportunities.

Engineering Opportunities Center Opens for Students and Employers

Students in the Whitacre College of Engineering now have a central location to plan their future careers, internships and co-ops: the Engineering Opportunities Center (EOC).

Located in Suite 014 of the Engineering Center, the EOC features information on career planning, computers for job searches, and many other career-related services.

"We are a one-stop-shop for students, faculty, and employers. Students regularly come by for advice and training," says Shelli Crockett, director of the EOC. "And we have many employers who use the EOC as a 'home base' when they are here interviewing for full-time and part-time positions, co-ops, and internships."

For more information on the EOC's services, visit www.coe.ttu.edu/careers. *E*

First Annual Engineering Kick-Off Event Held on Engineering Key

A new tradition began at the beginning of the fall 2008 semester. This tradition, the Engineering Kick-Off Event welcomed students, faculty, and staff to the Engineering Key for hot dogs, ice cream, involvement opportunities, volleyball, rock climbing, and a display of flags from engineering students' home countries.

Engineering students wore color-coded shirts to signify their major and engineering discipline. *E*

Sponsored by:

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Halliburton
Schlumberger

Jeff Summons

(L-R) Wesley Kimfer, Rebecca Taylor, Raider Red, and Holly Murphy pose during the Engineering Kick-Off Event

Partnerships

Whitacre College of Engineering Endowments
Established between February 29, 2008 and November 1, 2008

Peter and Carol Sattler
Scholarship Endowment

Mark and Amy Powell
Scholarship Endowment in Mechanical Engineering

Don Kay Clay Cash Foundation
Engineering Chair Endowment

John W. Mills Jr.
Construction Memorial Scholarship Endowment

AT&T
Academic Excellence Endowment

Southwestern Petroleum Short Course Association, Inc.
Scholarship Endowment

Bob L. Herd Department of Petroleum Engineering
Endowment

Bruce and Karen Northcutt
Endowment

Dr. H. R. "Rick" Horn Jr.
Graduate Scholarship Endowment

Petroleum Engineering Academy
Chair Endowment

Charles W. Gleeson, Charlyn G. Plunk, and Jake Plunk
Endowment in Petroleum Engineering

Robert J. and Jonnie Rawlings
Endowed Scholarship

Corporate Check Presentations
To the Whitacre College of Engineering

Chevron Phillips Chemical Company

(L-R) Harley Henninger, Barbie Green, Alton Cheatwood, Dean Pamela Eibeck, and Gary Grider celebrate a donation from Chevron Phillips Chemical

(L-R) Dean Pamela Eibeck and ConocoPhillips Senior Vice President Tom Mathiasmeier celebrate a donation to the Whitacre College of Engineering and the Rawls College of Business

(L-R) Kyle Purvis, Tyson Ritter, Doug Waterman, Dean Pamela Eibeck, Pat Brown, Antonio Gonzalez, Janie (Wood) Kenney, Matt Reile, and Brad Poteet present a check from ExxonMobil Coporation

(L-R) Senior Associate Dean Jeff Woldstad, Fluor Senior Vice President Tom Zachman, and External Relations Coordinator Toni Vaughn hold a check from Fluor's charitable foundation

(L-R) Dean Pamela Eibeck, Denny Bullard, Brenda Brown, Chris Patterson, Nick Hines, petroleum engineering chair Lloyd Heinze, Dale Bankhead, and Travis Bayer recognize a donation from Pioneer

TEXAS TECH UNIVERSITY
Edward E. Whitacre Jr.
College *of* Engineering™

Engineering *Our* Future
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Students gather on the Engineering Key for the Engineering Kick-off Event, a time to meet and mingle with faculty, staff, and other students.

Jeff Sammons

FALL 2008

Engineering *Our* Future

Published quarterly by the
Texas Tech University
Edward E. Whitacre Jr. College of Engineering
Box 43103
Lubbock, TX 79409-3103

Engineering *Our* Future
Fall 2008 Issue

MANAGING EDITOR
Jeff Sammons

CONTRIBUTORS
Leslie Cranford
Sally Post

COPY EDITOR
Sharon Smith