

IMPACT



A winning 'Formula' at Arrowhead

On display at
Arrowhead

Message from the **DEAN**

INSIDE THIS ISSUE

On the cover...

Willie the Wildcat takes the wheel of the Formula SAE car, designed and built by students in the College of Engineering and on display Sept. 18 at Arrowhead Stadium in Kansas City.

Kansas State colleges hosted hospitality tents prior to the K-State vs. Iowa State football game, handing out materials, displaying student projects, and visiting with fans and alumni.

Below, team members answer questions about the Formula car, as other fans stop by the engineering tent.

The Wildcats capped off the "Paint KC Purple" event with a 27-20 victory over the Cyclones.



As part of a university-wide effort, K-State President Kirk Schulz declared earlier this year that "Kansas State University will be recognized nationally as a top-50 public research university." Also known as Vision 2025, achieving this foundational goal is critically important to the continuing success of K-State graduates seeking employment or entrance to graduate school, our Ph.D. students seeking research opportunities, and our faculty who consistently compete for grant funding and research dollars.

It is our good fortune that in 2008 our college had established its own vision statement, which just happens to align extremely well with Vision 2025: "The Kansas State University College of Engineering will be a highly ranked college providing quality education within a research environment that develops engineering leaders to benefit society."

I certainly credit our department heads and task force committee for having the prescience to understand that being a highly ranked research institution is in no way mutually exclusive from being a great university overall.

As Kansas State and the College of Engineering become more research focused, all of our university undergraduate programs will be further energized and thrive, creating an environment of constant renewal and sustainability. As our engineering undergraduate students are more purposefully exposed to and engaged in the research elements of our faculty and graduate students, they will find themselves seated at the edge of the technology arena, soon to understand even more fully that the field of engineering is dynamic and not static.



Because we shape ourselves by decisions that in turn shape our environment—a paraphrase from French environmentalist Rene Dubos, reaching this level of sustainable development is a challenging concept. Yet it is clear from these pages of *Impact* that our progress is already strong. Accompanied by the visionary leadership of our alumni advisory board, you will read of our students and teams competing and ranking nationally, and our faculty garnering prestigious research grants while earning top awards and recognition.

Through a combined commitment and determined action, I believe K-State and our college are well on their way to achieving these goals and seeing their visions accomplished by 2025 and beyond.

John R. English
Dean of the College of Engineering

Page 2... Advisory council

4... Alumni feature

6... Seaton Society

8... Defense to Degree

10... Noteworthy

12... Alumni profiles

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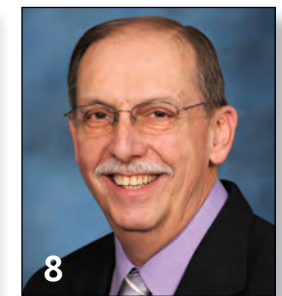
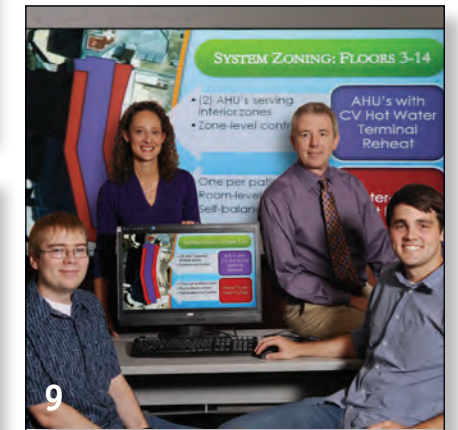
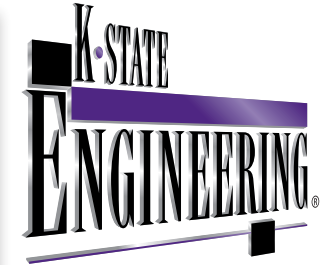
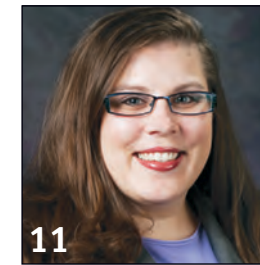
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Engineering Advisory Council—Sept. 24, 2010



Above, left to right: Jim Johnson, 2011 advisory council chair; John English, dean of engineering; Carl Ice, outgoing advisory council chair

“I serve in this capacity because it is a small way of thanking the college for the education and benefits I received. We all are the beneficiary of others who invested time and money in the College of Engineering. The strengths we must not overlook or ever fail to capitalize on are the quality of our students and faculty.

—Jim Johnson, 2011 College of Engineering Advisory Council Chair

“There is enormous satisfaction in being a part of seeing the college fulfill its promise of becoming one of the nation’s premier engineering institutions. I’m proud that K-State continues to provide the same outstanding educational opportunity today that I enjoyed as a student.”

—Carl Ice, outgoing 2010 College of Engineering Advisory Council Chair

Faculty rise to ‘Fellow’ status

The following 22 members of the College of Engineering faculty hold the status of “Fellow” within their respective professional societies and associations. The designation of Fellow is commonly granted for continuing distinguished service, encompassing as well, an individual’s significant and valuable contributions to the goals and scholarly endeavors of the organization.

- John R. English, dean and IMSE professor, IIE Fellow, 2003
- Dick Hayter, assoc. dean emeritus, ASHRAE Fellow, 1990
- Donald E. Rathbone, dean emeritus, IEEE Fellow, 1997
- Tom Roberts, asst. dean of recruitment and leadership development, ASEE Fellow, 2010; NSPE Fellow, 2010
- John W. Slocombe, BAE professor, NACTA Fellow, 1990
- Mustaque Hossain, CE professor, FASCE Fellow, 2009
- Hani Melhem, CE professor, FASCE Fellow, 2009
- Hayder Rasheed, CE assoc. professor, FASCE Fellow, 2010
- Robert W. Stokes, CE professor, FASCE Fellow, 2008; FITE Fellow, 2008
- Larry E. Erickson, CHE professor, AIChE Fellow, 2001
- Kirk Schulz, K-State President and CHE professor, ASEE Fellow, 2008; AAAS Fellow, 2007
- Walter P. Walawender, CHE professor, AIChE Fellow, 2002
- Elizabeth Unger, CIS professor emeritus, CSAB Fellow, 2010
- Ruth A. Dyer, senior vice provost and ECE professor, AWIS Fellow, 2006; IEEE Fellow, 2008
- Stephen A. Dyer, ECE professor, IEEE Fellow, 1997
- Michael S.P. Lucas, ECE professor emeritus, IEEE Fellow, 1993
- Ruth Douglas Miller, ECE assoc. professor, ASA Fellow, 2000
- Anil Pahwa, ECE professor, IEEE Fellow, 2003
- David L. Soldan, ECE professor, IEEE Fellow, 2001
- ZJ Pei, IMSE professor, ASME Fellow, 2010
- Mohammad H. Hosni, MNE professor, ASME Fellow, 2001; ASHRAE Fellow, 2005
- J. Kenneth Shultis, MNE professor, ANS Fellow, 2004

Front row, left to right

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Wildcat Construction Co., Inc.

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Executive Vice President and Chief
Legal Officer, JE Dunn Construction
Group, Inc.

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Associate Vice President, Burns &
McDonnell Engineering Co., Inc.

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Carl R. Ice, IE ‘79
President and Chief Operating Officer,
BNSF Railway Co.

Mark Hutton, CNS ‘77
President,
Hutton Construction Corp.

Dana Mathes, CHE ‘79
Vice President of Operations,
Dow AgroSciences

Michelle C. Munson, EE ‘96
President, Aspera, Inc.

Second row, left to right

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Yukos Oil Co.

Wayne A. Harms, CHE ‘76
Vice President,
ExxonMobil Upstream Ventures (East)
Limited

Ray Dempsey, Jr., IE ‘90
Vice President of Strategy, BP

John English
Dean, College of Engineering

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Constellation Design Group, Inc.

Brenton L. Heidebrecht, NE ‘79
Principal, Financo, Inc.

Scott D. Love, CHE ‘80
Fellow, Heavy Oil Research and
Development and SS, ConocoPhillips

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Supply Chain, General Mills, Inc.

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The Law Company, Inc.

Thomas C. Paulson, CE ‘73
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Canadian Capital Projects,
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Mark A. Keenan, CNS ‘74
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Steve P. Kirchhoff, ME ‘79
Vice President-Americas,
ExxonMobil Gas and Power Marketing

Mike Valentine, IE ‘90
Chief Operating Officer,
Cerner Corp.

Not in attendance

Randall R. Coonrod, CE ‘74
President, Coonrod & Associates
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Randall D. Groves, EE ‘78
Chief Technology Officer,
Teradici, Inc.

Raj Nathan
Chief Marketing Officer and Executive
Vice President, Worldwide Marketing
and Business Solutions Operations,
Sybase, Inc.

Engineering education sparks global career paths

Wayne Harms, CHE '76, and Steve Kirchhoff, ME '79—each with a 30-plus-year career and a vice president title at ExxonMobil, the world's largest publicly traded international oil and gas company—a story of two K-Staters who've taken their engineering education and Midwest values to the global arena in energy production . . .

The beginning—choosing K-State

Wayne Harms, a native of Newton, said he knew what he wanted to study in college, but where to do it was the unanswered question.

"I visited the major universities in Kansas—Wichita State, KU, KSU—and in the end, my most influential friends went to KSU. I had always enjoyed math and science in high school," he said. "There really was no question about engineering . . . just which kind. And even though I thought it was the most difficult, I chose chemical engineering due to the faculty and scholarship opportunities."

Steve Kirchhoff took a bit more circuitous route to his engineering destination.

"Growing up in farm country in Kansas," he said, "I spent most of my youth convinced I wanted to be in veterinary medicine. KSU was THE school for vet medicine, so I was strongly pointed that way. But in my freshman year of high school, I attended an Engineering Open House and was amazed at the kinds of things engineers did. From that point forward, I realigned myself to be an engineer. Mechanical engineering seemed to me to have the most exciting exhibits that year, and the job opportunities seemed a lot broader at that time too, so I signed up and never looked back."

ExxonMobil—launching global careers

"I interviewed with many companies on campus as graduation neared," Harms said, "but I ended up choosing ExxonMobil's upstream business due to the challenging job opportunities and the initial location—New Orleans! They really turned me into a petroleum engineer, which is pretty close to being a chemical engineer. The key was to learn how to solve unstructured problems, apply judgment to the business and communicate well."

Over the years, Harms had offers to go to other companies but always chose to stay with his dynamic career at ExxonMobil, often changing jobs within the company about every three years.

"Of course that involved relocating several times across the U.S. and the world. I was fortunate my family was flexible and eager enough to come along to every location," he said. "It made

us grow closer and cherish our time together. And that extends even today when my kids are spread out around the world in Los Angeles, Washington, D.C., and La Paz, Bolivia. We all found out how much you grow when you live in different cultures and have different experiences."

Among those foreign assignments was a stint in Hong Kong, where in 1997 Harms became executive director of ExxonMobil Energy Limited. While there, he served as a member of the Asia Society and on the Hong Kong Chamber of Commerce Environment Committee.

Harms moved to Doha, Qatar, in 2000 to become president and general manager, ExxonMobil Qatar Inc. In this capacity, he served as director of several companies including Qatargas, RasGas, Al Khaleej Gas Development and ExxonMobil Research Qatar Ltd.; was vice chairman of the Qatar International Chamber of Commerce; and was a member of the American School Board of Trustees in Doha, Qatar.

In 2006, he returned his family to the United States and assumed the role as vice president, ExxonMobil Gas and Power Marketing Company, Houston, Texas, before taking on his current position of vice president, ExxonMobil Upstream, Ventures (East) Limited.

"Today, I have global responsibilities and travel quite a bit," he said. "I recently finished one trip that took me to Moscow, Doha, Singapore, Tokyo, Beijing, Delhi and back to Moscow.

"For an integrated energy company, growth is key to its future. My current position is to add to our oil and gas reserves by concluding commercial deals with other governments or companies, or to acquire whole companies if needed. I meet many leaders in the industry and have to understand the whole upstream business as well as 'sell' the ideas to our most senior management."

Kirchhoff first connected with ExxonMobil through a summer internship.

"I was still a year away from graduating and not yet interviewing for positions when I got a call from the Exxon recruiter visiting campus from the oil and gas production office in Andrews, Texas," he said. "He convinced me to come in and talk with him about a summer job, which I ultimately accepted, spending three months on a project involving a mix of office and field work, including interaction with both the technical and operating teams.

I was amazed at the skill, dedication and teamwork that I saw that summer, and frankly, I was somewhat blown away by the size and scale of the oil business.

"I did go back to school with a long list of interesting companies to

continued on
page 13

Wayne Harms, CHE '76

Steve Kirchhoff, ME '79

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DEFENSE to DEGREE program

Three Kansas State University electrical and computer engineering professors will use a National Science Foundation grant for a project to help military veterans enter the work force at an accelerated pace.

Professors David Soldan, Don Gruenbacher and Noel Schulz will use the \$146,000 grant for "From Defense to Degree: Accelerating Engineering Degree Opportunities for Military Veterans." The project offers veterans accelerated undergraduate and graduate programs in electrical engineering, helping them obtain jobs more quickly, especially in energy systems.

The professors developed the idea in conjunction with the Post 9-11 GI Bill, which provides recent military veterans with up to 36 months of educational benefits, including financial support and housing allowances.

K-State's close relationship with Fort Riley and other military institutions, as well as its long-standing reputation as a military-inclusive university, make it an ideal place to develop such a program, Soldan said.

"These military veterans are unbelievably motivated and capable and possess relevant operation experience, making them a great fit for advanced education and occupational opportunity in this technical field," said Soldan, the project's principal investigator. "I think the ability to transition them from military service into the global work force in an efficient way is not only possible—it is something that we have a responsibility to do."

Soldan personally understands the benefits of the GI Bill—he served in the U.S. Air Force from 1971–1975, and the bill helped him earn his master's and doctoral degrees in electrical engineering at K-State.

The military project focuses on two areas: to help military veterans earn undergraduate degrees and to help those veterans with bachelor's degrees in related fields earn master's degrees. Veterans will be able to earn the degrees on an accelerated basis, depending on their technical work in the military. The project focuses on electrical engineering, and within that, energy systems, because

continued on back cover

Faculty awards and honors



Clair A. Mauch Steel Ring Adviser of the Year
Julie A. Thornton
CIS instructor



James L. Hollis Memorial Award for Excellence in Undergraduate Teaching
Hayder A. Rasheed
CE assoc. professor



Myers-Alford Memorial Teaching Award
Sunanda Dissanayake
CE assoc. professor



Bob and Lila Snell Distinguished Career Award for Excellence in Undergraduate Teaching
James F. Goddard
ARE/CNS professor



Commerce Bank Undergraduate Outstanding Teaching Award
James E. DeVault
ECE professor



Larry E. and Laurel Erickson Public Service Award
Hani G. Melhem
CE professor



Charles H. Scholer Faculty Award
Julia A. Keen
ARE/CNS assoc. professor



Frankenhoff Outstanding Research Award
Mary E. Rezac
CHE professor

2010 STUDENT COMPETITION TEAM RESULTS

- ARE team—1st place—ASHRAE 2010 Student Design Competition, HVAC systems selection category
- BAE robotics team—1st place—ASABE 2010 Annual International Meeting, Robotics Championship
- BAE fountain wars team—2nd place—ASABE 2010 Annual International Meeting, Fountain Wars Contest
- CIS robotics team—2nd and 3rd placings—AAAI Conference on Artificial Intelligence
- Aero design team—1st in design; 17th overall—SAE Aero Design East; 3rd in design; 3rd overall—SAE Aero Design West
- Formula SAE team—7th in design (tied); 28th overall—Formula SAE California Competition
- Mini Baja team—15th in presentation; 22nd overall static; 62nd overall—Baja SAE Western Washington Competition
- Steel bridge team—1st in regionals; 23rd at nationals—2010 Mid-Continent Student Conference
- Concrete canoe team—7th in regionals—2010 Mid-Continent Student Conference
- ChemE-Car team—competed at regionals—AIChE Annual Meeting



ARE ASHRAE team, front row, left to right: Todd Kuno and Jared Palan; back row, left to right: Julia Keen and Fred Hasler, student branch advisers; **student members not pictured**: Matt Kolins, Joel Wheeler, Nicole Vogt and Zac Buckmiller



BAE robotics team, left to right: Xu Wang; Wei Han; Daniel Bigham; Brenton Ware; Joseph Harner, BAE prof. and dept. head; Joseph Dvorak; Seth Perkins; Huiquan Zhang; and team adviser, Naiquian Zhang, BAE prof.



Aero design team, MNE students, left to right: Janessa Wedel, Chris James, Robert Reagan, Erik Hellmer, Kelly Jones and Joshua Goertz; far right, pilot, Billy Edwards; **not pictured**: John Elson, Amy Howell, Chris Johnston, Vishrut Patel, Greg Payne, Brian Anderson and team adviser, Terry Beck, MNE prof.

CE professor named Fulbright Scholar

Sunanda Dissanayake, associate professor of civil engineering, has been named a Fulbright Scholar and will



Sunanda Dissanayake

spend seven months in Sri Lanka. She will be teaching and assisting with curriculum enhancement at the University of Peradeniya.

She also will conduct research on reducing highway fatalities and injuries in Sri Lanka. The issue is sizable in Sri Lanka, as in many other developing countries, because of the mix of vehicular, pedestrian and other traffic on roadways. Poor roadway design also contributes to numerous fatalities and injuries. Dissanayake has conducted similar research on United States roadways for a number of years.

“It’s much needed in Sri Lanka because of the rapid rate of motorization that happened without much planning,” she said. “They do not really do research related to highway safety.”

The Fulbright application process involved evaluation by the Fulbright Commission and an equivalent commission in Sri Lanka. Dissanayake submitted a research proposal and contacted a university

in the host country to find a place to teach.

Becoming energized will be one of the greatest benefits of the Fulbright award, Dissanayake said. “Once in a while you need a change or a break— to go outside the regular routine, energize and come up with new ideas enriched by a different educational system than we have here,” she said.

Dissanayake is considering establishing a study abroad program for engineering students. The free education system in Sri Lanka means that financial responsibility would be limited to living and travel expenses. She also hopes to develop some collaborative research efforts between the two countries.

Alok Bhandari, professor and head of the department of civil engineering, said Dissanayake is the department’s second Fulbright Scholar since 2003.

“This award is a recognition of Dr. Dissanayake’s outstanding research and outreach programs in the area of transportation engineering,” he said. “As a Fulbright Scholar, she will serve as K-State’s ambassador in Sri Lanka while broadening her scholarly work to international road safety issues.”

The Fulbright Program is the flagship international educational exchange program sponsored by the U.S. government and is designed to increase mutual understanding between the people of the United States and the people of other countries. The U.S. scholar program sends approximately 1,100 American scholars and professionals per year to around 125 countries, where they lecture and/or conduct research in a wide variety of academic and professional fields.

Dissanayake came to K-State in 2002 and was promoted to associate professor in 2008. She earned a bachelor’s degree from the University of Moratuwa in Sri Lanka, a master’s from the Asian Institute of Technology in Thailand and a doctorate from the University of South Florida.

—K-State Media Relations

College of Engineering announces new department heads

Joseph P. Harner III has been named head of the department of biological and agricultural engineering, and Alok Bhandari will head the department of civil engineering and be K-State’s inaugural Dr.



Joseph P. Harner

Robert Snell Professor of Civil Engineering.

Harner came to K-State in 1983 with a 100 percent extension appointment in biological and agricultural engineering and responsibilities in programming related to grain and livestock systems. He has been serving as the department’s interim head since February 2009.

He has three degrees from the Virginia Polytechnic Institute and State University, including both a bachelor’s and a master’s in agricultural engineering, and a doctorate

in environmental science and engineering.

Harner is a registered professional engineer in Kansas and is active in numerous professional societies, including the American Society of Agricultural Engineers. He was named the society’s Mid Central Engineer of the Year in 2009 and the Kansas Section Engineer of the Year. He also received the society’s Henry



Alok Bhandari

Giese Structures and Environment Award.

“Dr. Harner had certainly proven to be a capable leader during his time as interim head, and his qualities and credentials once again stood out in the national search for this position,” said John English, dean of the College of Engineering. “We could not be more pleased to have him as the permanent department head of biological and agricultural engineering.”

Bhandari had been an associate professor of agricultural and biosystems engineering at Iowa State University, serving as focus area leader of the water and environmental stewardship engineering faculty and director of the water quality laboratory. From 1998 to 2007 he was a civil engineering faculty member at K-State, where he also served as the founding coordinator of the university’s

New Faculty Institute.

He has a bachelor’s in civil engineering from Jawaharlal Nehru Tech University, and a master’s in environmental engineering and doctorate in civil engineering from Virginia Polytechnic Institute and State University.

Bhandari is a registered professional engineer in Minnesota. His many awards and recognitions include the National Science Foundation CAREER Award and the Excellence in Student Chapter Advising Award from the American Society of Civil Engineers. He was a Miller Faculty Fellow at Iowa State University and a Big 12 Faculty Fellow.

“We are certainly pleased to welcome Dr. Bhandari back to K-State as department head,” English said. “His outstanding credentials and proven leadership skills will serve both civil engineering and the college well.”

Bhandari replaces Yacoub Najjar, professor of civil engineering, who has been serving as interim department head.

—K-State Media Relations

Bartak named to development team

Amy Bartak has been named a development officer for the College of Engineering. She graduated from K-State in 2005 with a bachelor’s degree in computer engineering. As a student, she served as president of Engineering Student Council and was a member of Mortar Board, Alpha Chi Omega, Engineering Ambassadors and McCain Ambassadors.

Before joining the K-State Foundation, Bartak was employed by YRC Worldwide in Overland Park as a senior process analyst. Prior to that position, she had been employed at Sprint Nextel, Overland Park,

as an IT systems analyst.

Bartak volunteers as the assistant state director for the Kansas Academic Decathlon, a high school competition, and is



Amy Bartak

the finance adviser for the Alpha Chi Omega Gamma Zeta chapter. She served as a Young Alumnae Co-Chair for Mu Mu, the Kansas City Alumnae Chapter of Alpha Chi Omega, while still in Kansas City.

She is currently pursuing a master’s degree in electrical engineering.

ARE program receives national award

K-State’s architectural engineering program has been selected as the 2010 recipient of the American Society of Civil Engineers’ Walter LeFevre Award, which recognizes outstanding actions in the promotion of licensure, ethics and professionalism in the field.

It’s the first time the society has selected an architectural engineering program to receive the award, according to David Fritchen, professor and ARE/CNS department head. He said the achievement brings significant national recognition to K-State and the College of Engineering.

“There are more than 2,000 engineering programs at more than 500 colleges and

universities nationwide that could compete for this award,” Fritchen said. “It is a positive reflection on the quality of engineering education, high ethical standards and professionalism that K-State ARE graduates are known for.”

The program had to meet several criteria to be eligible for the award. The society examined the percentage of the program’s graduates who took the Fundamentals of Engineering exam each year and the percentage of those graduates who passed the exam while enrolled in the program. The exam is one of two engineers must pass to earn the Professional Engineer certification.

“In 2009 we had 98 percent of our graduates take the Fundamentals of Engineering exam, with 88 percent passing, compared with the national architectural engineering pass rate average of about 70 percent,” Fritchen said.

The society also looked at the number of professionally licensed faculty members currently in the program as part of the award criteria. All faculty who teach classes in architectural engineering at K-State are licensed professional engineers, Fritchen said.

Several of these faculty also carry other professional credentials, including four members

who have attained the LEED, or Leadership in Energy and Environmental Design Accredited Professional designation, from the U.S. Green Building Council; two structural engineers who have the Structural Engineer designation for design of structures in seismic zones; and one of the only faculty members in the world to attain the High-Performance Building Design Certification from the American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc.

The ARE program also had to submit a subjective, narrative evaluation outlining the extent of its curriculum devoted to licensure, ethics and professionalism. The evaluation had to explain the activities undertaken by the department to promote these values.

Ethics and professionalism are taught and promoted across the curriculum in several classes, Fritchen said.

“Our faculty work as a team in promoting uniform professional and ethical standards in their classes to send a clear message to the students that these are very important qualities of the engineering profession and that they directly impact their personal character and integrity,” he said.

—K-State Media Relations

College of Engineering **Calendar**

- **Feb. 8, 2011** — *Engineering Career Fair*
- **April 15–16, 2011** — *Open House*
- **April 30, 2011** — *Seaton Society Celebration*
- **May 14, 2011** — *Spring Commencement*

ALUMNI PROFILES

RECOGNITIONS

1950

Bob Thorn (CE), in recognition of his nearly 60 years of service on the Shawnee County Health Agency governing board, is a co-honoree of having the agency's newest community health clinic in Topeka named for him—the Gregory J. Van Sickle-Robert Thorn Health Clinic. Thorn is an engineer with Finney and Turnipseed Consulting Engineers.

1969

James F. Goddard (BCON) has been recognized as Alumni in Higher Education by the University of Florida, M.E. Rinker, Sr. School of Building Construction, from which he earned his M.S. in building construction in 1972. He is professor and program coordinator for the construction science and management program at K-State.

1971

Daylon Edmisten (EE), C.E.M., has retired from civil service with the U.S. Air Force at Whiteman AFB, Mo., home of the B-2 bomber, where he has worked the past 25 years as a design engineer, utility engineer, project manager and finally as an energy manager for the civil engineer squadron at the base.

1978

Dan Eklund (EE) has completed 24 years at San Diego Gas & Electric and is currently designing substation SCADA systems.

1979

Ernest Straub (CNS), president of Straub Construction Company, now celebrating its 90th anniversary, recently received three Capstone Awards for building projects that enhanced the Kansas City metropolitan area. The Capstone Awards have been presented for the past five years and work done by the Straub Company has been recognized for the past four years. The company was also presented with an Excellence in Construction award by the Associated Builders and Contractors, Inc., this year. K-State graduate **Parker Young, Jr.** (CNS '94) is executive vice president and chief operating officer of the company.

1980

N.K. Anand (ME) was recently appointed executive associate dean of the Dwight Look College of Engineering at Texas A&M University. He also serves as associate agency director for the Texas Engineering Experiment Station.

1982

Vicki Scharnhorst (CE) has joined Kennedy/Jenks Consultants as manager of the firm's Denver region. She currently chairs the K-State Civil Engineering Advisory Committee; is a registered professional engineer in Colorado, Nevada, Michigan and Missouri; is a certified LEED-Accredited Professional; and is a State Water Right Surveyor in Nevada.

1983

Thomas Trabue (ARE), P.E., LEED, of Trabue, Hansen & Hinshaw Inc., saw this 35-employee civil/structural engineering firm in Columbia, Mo., named 2010 Small Business of the Year by the Columbia Chamber of Commerce. Trabue was also named Ambassador of the Year by the Chamber of Commerce Ambassadors.

1988

Hilary Steinert (EE) was recently promoted to manager, SCADA, supporting liquids and gas pipeline control centers at Enterprise Products Partners, L.P. in Houston, Texas.

1990

Sheila J. Hayter (ME), P.E., Fellow ASHRAE, senior research supervisor, U.S. Department of Energy National Renewable Energy Laboratory, Golden, Colo., was installed for a second term as vice president of the American Society of Heating, Refrigerating and Air-Conditioning Engineers.

1994

Anita Ranhotra (IMSE, MEM '01), supply chain quality manager—systems strategy and execution at Hallmark Cards, has been named recipient of the 2010 Outstanding Young IE - Business/Industry Award, given in recognition of engineering contributions in the application, design, research or development of IE methods. It also recognizes individuals in business or industry who have shown outstanding

characteristics in leadership, professionalism and potential in the field.

DEATHS

1944

John H. Lindau (ME) died June 7, 2010, in Colorado Springs, Colo. He had worked for Stratford Engineering Corp. from 1952–1979, and served as a consultant to various engineering companies prior to retiring in 1984. He is survived by two children, two grandchildren and two great-grandchildren.

1950

Benjamin R. Ruberson (EE) died June 17, 2010, in Independence, Kan. He had worked for Arco from 1954 to 1985. He is survived by his wife, Elinor, three children and six grandchildren.

Eugene A. Weir (ARE), Midlothian, Va., died April 25, 2010. He was a corporate architect and retired from the Ethyl Corp. as director of corporate real estate. He is survived by his wife, Nancy, three children, four grandchildren and two great-grandchildren.

1978

Stephen D. Webb (CE), Fort Myers, Fla., died Feb. 17, 2010. He worked as a civil engineer for 31 years, most recently as vice president of transportation for Kitson Babcock LLC. He is survived by his wife, Jean (KSU '79), three children, one grandchild, his parents and a brother.

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We are interested in following the career paths and accomplishments of our alumni, focusing on promotions, advancements, awards and honors, job changes and of course, retirements, as well as death notices.

Please send your information in these categories to—

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Engineering education sparks global career paths

continued from page 5

interview with for a permanent position, but I kept comparing every one to Exxon, and ultimately I concluded I would not find a match to the quality of people and opportunities I had seen, even in a remote place like Andrews, Texas.”

He began his career with the company in Kingsville, Texas, as a production engineer for Exxon's lease on the King Ranch in South Texas.

“This was a time of intense development activity in that area, and everything I had seen the prior summer was multiplied by 10 in terms of pace and challenge,” Kirchhoff said. “I never really looked back to reconsider my decision to join Exxon, as every few years a new opportunity arose, either new technical positions, or supervisory and leadership roles, and ultimately the opportunity to work in an overseas assignment.”

The decision to move around the world to a completely different culture in Malaysia was a big step for the Kirchhoff family. But in 1994, he became engineering manager to Esso Production Malaysia, Inc.

“It was an incredible experience, as once again the scale of the business jumped by an order of magnitude. However, the people were the same top caliber I had grown to expect, and our family experienced life as ‘expats’ in a very positive setting,” he said.

After Malaysia, Kirchhoff made his first move from the technical and operations world to the commercial side of the business. In 2001, he moved his family to London, where he assumed responsibility for natural gas marketing in ExxonMobil's joint ventures in Europe, including Ruhrgas, Gasunie and BEB.

“The job in London gave me a chance to expand my views of the world and participate in some large-scale deal making,” he said. “And living as an expat in London was not all bad either, although I'm not sure my bank account will ever recover from the antique shopping my wife found time to do.”

In 2004, Kirchhoff moved back to the United States as planning manager for ExxonMobil Development Company. In 2007, he began his current position as vice president-Americas, ExxonMobil Gas and Power Marketing, where he leads a team that manages sales and purchases of the company's natural gas and natural gas liquids production streams in the U.S., Canada and South America.

“My role is to help set the vision and direction for the team and to be a liaison at the senior levels with our customers and industry partners,” Kirchhoff said. In this capacity, he also serves as the company's representative on the board of the Natural Gas Supply Association, a trade association for the industry focused on policy activity in Washington, D.C. He is also a member of the Natural Gas Council.

Formative influences

Both Harms and Kirchhoff credit the influence of their K-State educational experience, as well as their personal life phi-

losophies, with serving them well in their successful career paths.

“The training of my engineering education in how to think and solve problems was very important,” Harms said. “Growing up in Kansas, you develop a strong work ethic which is needed in the corporate world. Building friendships and knowing how to work with people is another skill that is honed at the university.

“And certainly, work life balance is something to make sure you always keep in mind. Others depend upon you for companionship and you yourself need downtime to keep it all in perspective. Sometimes this can be hard to manage and sometimes it's a strain, but believe me, its important.”

Kirchhoff credits K-State with expanding his horizons on all levels—from academic challenges to learning about life on a campus 50 times larger than his high school.

“I learned to assimilate the fundamentals I was hearing in class and take those further through applications in labs and extracurricular projects,” he said. “That process has been repeated dozens of times over the course of my career and personal life as we've moved from job to job, and country to country. At K-State, that process seemed to happen very naturally and with a lot of fun along the way.

“Being raised on a farm, with the strong ethical background

“Be flexible in describing what you think you will want to spend your life doing as an engineer . . .”

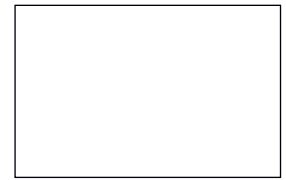
that comes from growing up in a Christian community, and the work ethic that's also required, was surprisingly good training for a career with a major oil and gas company. I find a lot of the commodity business fundamentals I learned through osmosis in working around cattle and grains apply every day in what I do—we just work on a different scale.”

Advice for today's engineering graduates

“As an engineer, I really think you need to be grounded in some type of technical discipline and/or skills that you can use to build on throughout your career,” said Harms. “In our company, we have the choice of the technical or managerial career ladder. Either is rewarding and works for different people. As time goes by, you learn many things, and this experience and knowledge must be shared with others. That sharing, in turn, provides good opportunities for you to learn new skills and feel good about yourself and your accomplishments.”

For Kirchhoff, it's about knowing how to adapt. “Be flexible in describing what you think you will want to spend your life doing as an engineer, and be open to learn about how the world works,” he said. “But be absolutely inflexible in defining the core values that are important to you in life and living those out as you go forward. Constantly look for those fundamentals, whether doing detailed technical work or involved in less tangible pursuits—you will be able to find them, maybe just not in the places you thought.”

—by Mary Rankin



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DEFENSE to DEGREE program

continued from page 8

many veterans have specialized experience in those areas. Soldan said military veterans entering the engineering work force will help address shortages that are forecasted because of retiring engineers.

“One of the things we’re trying to do is better understand the existing knowledge level of these veterans because they have been working in technology in relevant operational contexts,” Soldan said. “Developing and implementing a tailored curriculum that recognizes their knowledge and experience can serve as a powerful enabler in growing this professional work force, as well as provide excellent career opportunities for former military members.”

The program will also provide military veterans with paid internships through the K-State Electrical Power Affiliate Program, which allows electrical power industries to support engineering students in electric power and energy systems. General Dynamics and several affiliates of the program, including Burns & McDonnell, Westar Energy and Omaha Public Power District, have already written letters of support for beginning the military project at K-State.

Schulz, K-State’s Paslay Professor of Electrical and Computer

Engineering, is director of the Electrical Power Affiliate Program, and Gruenbacher is the head of the electrical and computer engineering department. Soldan, Schulz and Gruenbacher will spend the school year gathering a test group of 10 to 12 current students who are veterans and can help develop ideas and provide feedback. The professors plan to have a formal program in place by the beginning of the 2011–2012 school year.

Although the professors are using the electrical engineering energy systems area as a starting point, they would eventually like to expand the program to other academic areas, including business, economics and foreign languages.

“This project is another compelling opportunity for K-State to employ its military-inclusive approach to ensuring success for our current and future military and veteran students,” said retired Army Lt. Col. Art DeGroat, director of military af-

airs at K-State. “The effort that our engineering faculty are making should well achieve its goals—and more important, provide needed insights on the national level on how best to help military veterans transition to other lucrative forms of professional service.”



Defense to Degree program participant and U.S. Navy veteran, Josh Ogle, left, consults with David Soldan, ECE professor.

—K-State Media Relations