

IMPACT

Kansas State University College of Engineering

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Advisory Council New members join college advisors

Dean Donald Rathbone announced this fall the addition of three new members to the College of Engineering Advisory Council.



Joseph F.
Allison

The new members are Joseph F. Allison, Darrell M. Hosler and Herbert N. Whitney.

Allison, ChE '50, is president of Autoclave Engineers Group, Erie, Pa. He is a member of the KSU President's Club and has served on the board of trustees for several institutions in Erie.

Hosler, ME '59, is executive vice president with Burns & McDonnell Engineering Company, Kansas City,



Darrel M.
Hosler

Mo.

He has received the Distinguished Service in Engineering award from KSU and has served as chairman of the Construction Industry Affairs Council of the Kansas City area.

Whitney, CE '63, is president of CITGO Pipeline Company and general manager, International Feedstocks and Logistics, CITGO Petroleum Corporation, both of Tulsa, Okla.



Herbert N.
Whitney

He has served on the executive committee of the Association of Oil Pipelines, Washington, D.C., and been a member of the board of directors of the Marine Preservation Association, Washington, D.C.

Essential Edge Campaign update

By Don Rathbone, Dean

The \$125 million fundraising campaign for Kansas State University ends on June 30, 1993. 100 million dollars of the goal is for the regular campaign and 25 million dollars is for deferred gifts. Five year pledges through 1998 will be accepted as part of the campaign.

The good news is that the University has already achieved its basic goals. The not-so-good news is that only one academic college—Agriculture with a goal of 12 million dollars—has met their individual goal. The College of Engineering has received contributions of just over \$17 million, with a goal of \$18 million for the regular campaign, the highest goal of any of the colleges or of any other projects in the campaign. The college has already surpassed its deferred gifts goal of \$4,500,000.

I do want to thank all of you who have contributed to the campaign. Your generous response has enabled the college to establish three new endowed distinguished professorships/chairs, numerous scholarship and fellowship programs, an engineering library, some special awards, plus acquire some needed laboratory equipment. I am very pleased with the campaign to date and am certainly appreciative of those of you who have helped. As I've said many times, "The difference between a good college and an outstanding one is the support that it receives from its alumni and friends." You are making a difference.

Have a very Merry Christmas and a good year in 1993.

Palmer defines qualities of engineer

The following is an excerpt from the address by Shirley Palmer, chair of the Kansas Board of Regents, during the May 1992 commencement of the College of Engineering.

In her comments, Regent Palmer succinctly outlined the qualifications needed to be an engineer.

■ **continued on page 2.**

Salina aero center wins \$7.7 million grant

The Aviation Training Center at Kansas State University-Salina has received \$7.7 million in funds under a federal grant released Oct. 17 by the U.S. Department of Defense.

K-State President Jon Wefald said the Aviation Training Center's

Palmer defines engineers

■ *continued from page 1*

According to Dean Donald Rathbone, Regent Palmer's address was one of, if not the best, commencement addresses during his tenure as dean.

The regent's son, Brian, received his bachelor's degree in industrial engineering during the ceremonies.

"Engineering is a challenging field that offers many opportunities to young men and women. Engineers build, discover and create. They contribute to the health and welfare of many people.

I did some research of my own on engineers. I found that the ability to work with mathematics is probably the most important qualification for an engineer. Many personal traits also qualify a person for an engineering career. A person who enters engineering should be:

1. Curious, searching for the 'how' and 'why' of natural mechanical things.

2. Intelligent, thinking clearly and using sound judgment.

3. Imaginative, picturing difficult situations and suggesting new ideas or new ways of doing things.

4. Creative, bringing new facts and methods together to solve new problems.

5. Industrious, working hard to complete exacting tasks as quickly as possible.

6. Studious, reading widely and extensively to increase knowledge.

7. Responsible, completing assignments in a dependable way with a minimum of supervision.

8. Communicative, sharing ideas with others and getting along with people."

programs funded under this grant "will establish Kansas as the nation's leader in aero technical training and flight instruction. This is particularly important at a time when we are downsizing our armed forces, for we must retrain military personnel for productive civilian jobs and assist our air defense industry in redirecting its skills toward new products for civilian aircraft and space flights."

Wefald praised the entire Kansas Congressional delegation for its cooperative efforts in supporting the university's grant request.

Under the grant, Kansas State University-Salina will equip compos-

ite and nondestructive testing laboratories to train aviation technology students to fabricate and repair composite aircraft structures and parts. It will also provide training and transition assistance to veterans leaving the military and provide the comprehensive training for active duty military personnel under contract with the Department of Defense and the Kansas National Guard. The center will also prepare pilots to meet international flight training requirements and support worldwide instruction through the communication capabilities of the Bob Dole Communications Center on KSU's main campus.

'92 Career Fair: Contact

Exhibitor numbers were down but enthusiasm remained high on the part of both students and corporation and organization representatives who gathered Sept. 29 for the ninth annual College of Engineering Career Fair.

Forty-five exhibitors met with more than 700 engineering and computer science majors from 9 a.m. to 3 p.m. in the K-State Union's Grand Ballroom.

"This was down about 10 companies from last year," said Barbara Finnegan, staff assistant and career fair coordinator, "mainly due to economic conditions and the fact that several former exhibitors are just not recruiting at this time."

However, Finnegan stressed that response to the event was positive.

"Students commented that even though jobs were scarce, they still felt it was a positive experience to talk with the representatives who attended," she said.

Representatives told Finnegan that, even when they cannot offer jobs, maintaining contact on the campus through events like the career fair was important to their recruiting efforts in the future when the job outlook improves.

"And the recruiters also com-

mented favorably," Finnegan said, "on the strong turnout and high caliber of K-State students."

For the first time this year the fair was opened up to engineering student organizations that wanted to promote their groups by manning a table at the event. Two such groups—IEEE and ASME—did so and felt it was a successful undertaking. Finnegan said the Career Planning and Placement Center staffed an exhibit table for the first time, and reported positive results also.

Two resume books were made available to recruiters—the Senior Resume Book, a project of Engineering Student Council, containing 400 one-page resumes of graduating seniors and graduate students; and a Women and Minorities Students in Engineering Book, produced by MEP, containing 142 resumes, fresh-man through graduate student rank.

Students also had the opportunity to have dinner with recruiters of their choice the evening before the fair, Sept. 28, when the Industry Recognition Banquet was held at the Manhattan Holiday. Twenty-six corporation/organization representatives and 153 students attended, Finnegan said.

Enrollment at 2,482 for fall

The phasing out of engineering technology degrees is the major reason why enrollment numbers in the College of Engineering are down by 134 students from the fall of 1991, according to John Dollar, assistant dean of the College of Engineering.

At the same time, Dollar noted, the college will see an increase of 200 students in January 1993 when the Department of Computing and Information Sciences joins the College of Engineering, representing shifting enrollment patterns that occur as curriculums are added and phased out.

In a class-by-class breakdown, Dollar said, freshman and junior year enrollments are down, while sophomore, senior and fifth year class numbers are virtually the same as a year ago.

There are currently 2,482 undergraduates enrolled in the college, and the three largest departments are electrical engineering and computer engineering, mechanical engineering, and architectural engineering and construction science, respectively.

Rohles lecture features McQuiston

Dr. Faye McQuiston, Professor Emeritus, Mechanical and Aerospace Engineering, Oklahoma State University, and Vice President, American Society of Heating, Refrigerating and Air Conditioning Engineers, was a guest speaker at Kansas State University Oct. 26 as a part of the Fred Rohles Distinguished Lecture Series.

McQuiston spoke to engineering students in the afternoon on the topic "Subtleties of the HVAC Design Process," and that evening delivered a public address entitled, "Variable Flow Piping Design Made Easy."

Joining the OSU faculty in 1962, McQuiston was a National Science Foundation Faculty Fellow from 1967-1969.

An active member of ASHRAE,



Exxon presents gift

Kevin Pyle, right, and Ron Thomas, left, representatives of Exxon Corporation, present a check for \$12,000 to Dean Don Rathbone during a brief ceremony Oct. 12. The Exxon donation will support several departments and activities in the College of Engineering.

Birotor combine researched

Through new technology and experimentation at Kansas State University, a birotor combine cylinder has been developed and tested to achieve improved threshing, grain separation and straw elimination.

The initial research project, funded by the Kansas Technology Enterprise Corporation and several private investors in 1989, was promoted by K-State's agricultural engineering department and inventors Mark Underwood and Ralph Lagergren. Underwood is a Kansas farmer and custom combiner, Lagergren a KSU business graduate.

"It was a partnership of K-State and the inventors to apply sound agricultural engineering design analysis to innovative ideas and practical experience from the inventors," said Stan Clark, head of the agricultural engineering department. "The inventors came to us frustrated because no one would help them. Combine manufacturers told them the risk was too high. We thought the project had merit and matched well with the KTEC mission."

K-State's role in the invention was to develop and test. Specific operating perimeters for the prototype model of the cylinder were established through laboratory testing of the cylinder.

in addition to his present status of vice president and board member, he has served on various committees and councils and received numerous distinctions including the Distinguished Service Award in 1984 and election to the grade of Fellow in 1986.

The Fred Rohles Distinguished Speaker Series was created in 1991 by K-State's Institute for Environmental Research and the College of Engineering to honor Frederick Rohles, emeritus professor of engineering and former director of the Institute of Environmental Research, for his outstanding research in the study of environmental human factors. The series focuses on engineering research but also addresses a broader university public outside of the college of engineering.

Honorees



Gerald and Barb Auerbach



William and Wy Johnson



Gerald and Arlene Opplinger



Hannah and Richard Kerschen swap news with Martin K. Eby Jr., right, during the reception in honor of this year's Hall of Fame inductees.

College inducts three into Hall of Fame

The fourth annual Kansas State University College of Engineering Hall of Fame induction ceremonies were held Oct. 2 at the Manhattan Country Club. The Class of 1992 was honored following a reception and dinner.

Those inducted were: William H. Johnson, 1948, professor emeritus; Gerald G. Auerbach, 1950, ME; and Gerald T. Oppliger, 1959, ME. Two members of the Class of 1992 were unable to attend: Irvin S. Barnett, 1948, CE; and Robert E. Keever, 1963, CE.

Auerbach is a 1950 KSU grad in mechanical engineering. He is a retired corporate senior vice president with the Pneumo Corporation, Boston, Mass. Previously he was with the Aerojet General Corporation as an associate manager in its Polaris Program and as a manufacturing manager. He served as director of

the Technology Strategy Council and as an adjunct professor for the Center for Technology and Policy, both at Boston University. Auerbach is a member of the KSU President's Club and life member of the KSU Alumni Association.

Johnson earned degrees in agricultural engineering at Ohio State University and Michigan State University before coming to KSU, where he eventually served 11 years as head of the Department of Agricultural Engineering. At the time of his retirement he was the director of the college's Engineering Experiment Station. He has since been a member of the KSU Engineering Advisory Council and has established a scholarship in agricultural engineering at KSU.

Oppliger earned his bachelor degree in mechanical engineering at KSU in 1959. He is now the presi-



Laree Mugler, Proctor and Gamble, visits with Stanley Clark, head of the agricultural engineering department during the reception.

dent of Lockheed Space Operations Co., Titusville, Fla. Lockheed designated him a corporate officer in 1991. He has authored technical papers on solid rocket motors and productivity improvement. He has been honored with the NASA Public Service Award and is a member of the board of advisors at the University of Central Florida.



Linda Streeter and Penny Forsyth of the Dean of Engineering's office, tended to arranging the details of the ceremonies.

College faculty win awards

Professors L.T. Fan, John C. Lindholm and William Hudson recently garnered honors for themselves and the College of Engineering.

L.T. Fan, distinguished professor of ChE, has been awarded the Hausner Award of the Fine Particle Society, presented for outstanding leadership and distinguished service in the field of particle technology.

Fan has been head of the chemical engineering department since 1968. He received the Sigma Xi Outstanding Scientist Award at KSU in 1989 and was named the KSU chapter Phi Kappa Phi Scholar of the Year in 1983, among other honors.

Fan holds eight patents and has authored seven books and more than 500 technical articles.

Lindholm, emeritus professor of ME, has been awarded a Fulbright grant to teach at the University of Assiut in Egypt for the 1992-93 school year. He will teach mechanical engineering to undergraduate

students during his 10-month assignment. Lindholm, who previously taught at the University of Assiut on an Agency for International Development program administered by the KSU College of Engineering in 1964-66, also completed a Fulbright lectureship to the University of the South Pacific in Fiji in 1987.

William Hudson, assistant professor of electrical and computer engineering, has been awarded the Institute of Electrical and Electronics Engineers (IEEE) Outstanding Branch Counselor and Adviser Award for 1992.

Hudson was one of only seven to receive the award from among more than 750 branch counselors and more than 180 branch chapter advisers throughout the world.

Student branches of IEEE operate a program tailored to fit the needs of their own IEEE student members.



Dow Chemical over \$90,000 in '92

George Kidwell, right, of Dow Chemical, presents Dean Don Rathbone with one of several checks he delivered to the College of Engineering during a visit Oct. 16. Kidwell's checks brought Dow Chemical's donations to the college to more than \$90,000 in 1992.

Mark is an attorney with Lionel Sawyer and Collins.

Rizwan Mithani (M.S. ChE '88) and his wife Nina announce the birth of their first daughter, Jas-

Two join faculty

Two new assistant professors joined the faculty of the College of Engineering this fall--Dr. Lakshmi N. Reddi, civil engineering; and Dr. Sharon Ordoobadi, industrial engineering.

Reddi earned his Ph.D. from the Department of Civil Engineering at Ohio State University, and prior to coming to Kansas State, had been employed as an assistant professor in the Department of Civil, Environmental and Coastal Engineering at Stevens Institute of Technology, Hoboken, N.J.

Ordoobadi received her Ph.D. in economics from the Krannert School of Management, Purdue University, and had been an assist. professor in the Department of Information and Decision Sciences at the University of Illinois at Chicago.

mine, July 28, 1992. Rizwan was recently promoted to simulation group leader at Chemshare, Houston, Tx.

Jeff Speer (ME '90) was promoted in Sept. 1991 to area manager of Koch Pipelines, Cushing, Ok., after previously serving as division engineer for Koch Gathering Systems. He was married to Kersten Shelton May 23, 1992.

Jim Weaver (IE '91), Overland Park, Ks., is employed by Environmental and Safety Services, Inc., doing environmental and safety consulting for many different companies. He married Jody Rosas July 18, 1992, and although she is a KU grad, Jim reports, ". . . I don't hold that against her."

Brian L. Butler (EE '91) is a systems engineer for the Wolf Creek Nuclear Operating Corporation, Burlington, Ks. His responsibilities include reactor protection, reactor instrumentation and reactor control.

Deaths

George Knisel (ChE '29) died Nov. 15, 1991, in Shafter, Ca.

Joel P. Kesler (EE '33) died Oct. 14, 1992, in K.C., Mo. He had retired as a partner in Black & Veatch Engineers-Architects in the late 1970s. A member of several pro-

fessional engineering societies, Kesler also received the distinguished service award from Kansas State University in 1981 and was inducted into the Engineering Hall of Fame in 1989. He is survived by his wife Adelaine, one son, one daughter, five grandchildren and two great-grandchildren.

Walter E. Burrell (ME '39) died Sept. 18, 1992. He was a retired Army lieutenant colonel, living in El Paso, Tx.

Victor Manley Jones (ME '52) died April 6, 1992. He had been employed by Phillips Petroleum Co., Bartlesville, Ok., for 33 years, retiring in 1985. A lifetime member of the KSU Alumni Assoc., Victor is survived by his wife Donna, two sons, one daughter and three grandchildren.

Edward Lee Wilson (CE '68, M.S. CE '78) died Aug. 31, 1992, in Topeka, where he had been an engineer for the Federal Highway Administration for the past 17 1/2 years. He was a member of the KSU Alumni Assoc., American Society of Civil Engineers and National Society of Professional Engineers. He is survived by his wife Patricia and two daughters. One of the family's memorial contributions is to the Dept. of Civil Engineering at KSU.



College of Engineering
Durland Hall
Manhattan, KS 66506-5104

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Dean of the College
Donald E. Rathbone
Director, Engineering Experiment Station
Dr. Gale Simons