

IMPACT

Kansas State University College of Engineering

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Fox wins NSF grant; opts for KSU



(l-r) Dave Soldan, dept. head EECE, Don Rathbone, dean of college of engg., L.T. Fan, dept. head ChE, and Rodney Fox, asst. prof. EECE.

Rodney O. Fox, asst. professor of EECE, likes working at K-State.

Fox had already turned down one offer to teach at Yale University. When he won a Presidential Young Investigator award this spring from the National Science Foundation, Yale called again asked him to reconsider.

"I said, 'Thank you for the offer, but I'm very happy here.'"

Fox's wife Betty teaches in K-State's Department of Modern Languages.

"It would have been difficult to move us both," said Fox, a native of Wichita, Ks. "K-State made efforts to place both of us. That's important to academics, and we appreciate it."

The NSF grant, potentially a \$500,000 award over five years, will make it easier to stay. It consists of an annual base grant of \$25,000 for Fox's research.

But the prestigious nature of the award—Fox is the first K-State faculty member ever to receive one—also makes him more keenly in demand at places like Yale.

Fox was looking for a full-time tenure-track position while teaching statistics part-time in the Department of Mathematics last year. His new department head, Dave Soldan, credits Don Rathbone, dean of the College of Engineering, with putting together a package to keep Fox in Manhattan.

Soldan described Fox's field—systems theory—as one that cuts across all

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College makes commencement awards

Ronald D. Andersen received the Distinguished Service Award and Medhat M. Morcos the James Hollis Award for Excellence in Undergraduate Teaching at KSU commencement ceremonies May 17. The two awards are given annually by the College of Engineering.

Andersen is a 1963 K-State graduate in civil engineering. He is president of R.D. Andersen, Inc., general contractor, Topeka, Ks. His firm has built many buildings throughout the state and region and, in particular, phase II of Durland Hall, which was recognized by the state as one of the top five buildings in 1983. The company also renovated Nichols Hall and constructed the Peters Student Recreation Center on the K-State campus.

Ronald D. Andersen



Andersen is very involved in professional and community activities. He is a member of the American Society of Civil Engineers, the Kansas Chamber of Commerce in Industry, a board member of the Highland Park Bank and Trust, and a member of the Board of Trustees of the KSU Foundation.

Morcos, a member of the K-State faculty since 1986, teaches courses in control systems, power electronics and energy conversion in the EECE de-

Medhat M. Morcos



partment. Current research interests include power electronics, control systems and high voltage engineering.

A native of Cairo, Egypt, he received a B.S. in EE from Cairo Univ. and a B.S. in military science from the Military Academy in 1966, and an M.S. in EE from Cairo Univ. in 1978.

He retired from the Egyptian Air Force in 1981 with the rank of Lt. Col. and completed a Ph.D. in EE at the

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Koch Industries: Company of the Year

The Kansas Gamma chapter of Tau Beta Pi, in conjunction with the K-State Colleges of Engineering and Business Administration, recognized Koch Industries, Inc. as the 1991 Company of the Year.

William Hanna, president of the company, accepted the award at an evening banquet at the K-State Union on May 1.

The Company of the Year program, established in 1975, honors companies that are actively involved in the advancement of higher education and the pursuit of excellence in the engineering and business professions.

Koch Industries was founded in 1940 as Wood River Oil and Refining Co., Inc., to build and operate a 10,000 b/d refinery in Wood River, Il. By 1959 the company had sold the Wood River refinery, changed its name to Rock Island Oil & Refining Co., Inc., and expanded its interests to include crude oil purchasing and gathering operations. In 1968 the company's name was changed to Koch Industries, Inc., in honor of Fred C. Koch who, until his death in 1967, was instrumental in the company's success.

Today Koch is a privately held international company engaged primarily in the petroleum, chemical and real estate industries. While its corporate management, financial, administrative, data processing and research staffs are located in Wichita, Ks., Koch has operating facilities located throughout the U.S., Canada and Europe, and sales offices worldwide.

Also at the evening banquet, Brad Marshall, sophomore in EE from Augusta, Ks., was presented the Tau Beta Pi Outstanding Engineering Underclassman Award.



Participants in Tau Beta Pi's 15th annual Company of the Year program recognize Koch Industries Inc., Wichita.

Bill Hanna, left, pres., Koch Industries, Inc., accepts a plaque from Tau Beta Pi pres., Kyle Murdock, sr. EE.



Coonrods commit \$100,000

A \$100,000 commitment from a Southeast Kansas couple will provide scholarships in the College of Engineering.

Carl and Ruth Coonrod, Elk Falls, have pledged their support through the KSU Foundation to the \$100 million Essential Edge Campaign. The endowment will be managed by the Foundation and investment income will provide scholarship awards.

"I wanted to put something back into K-State," Coonrod, a 1949 architectural engineering graduate, said. "K-State was good to me and several members of my family. This scholarship gives me the opportunity to put something back."

Coonrod retired from Coonrod & Walz Construction Co. of Wichita, and now owns and operates a large ranch.

"Attracting students with proven academic strength and potential lead-

ership abilities is one of the college's most important priorities," said Don Rathbone, dean of the College of Engineering. "The Coonrod scholarship is an outstanding example of private sector influence on our programs. This gift will be a tremendous help to us."

"It is gratifying that Carl Coonrod and his wife Ruth are helping Kansas State University's College of Engineering," said K-State President Jon Wefald. "With this contribution he increases his very positive impact on his alma mater—he and his firm constructed many of the buildings on the K-State campus."

The College of Engineering has raised more than \$12 million toward an \$18 million goal. The Essential Edge Campaign is the largest fund raising program in K-State history. Campaign priorities include scholarships, professorships and equipment.

Merger complete; Salina campus joins KSU

Kansas State University-Salina, College of Technology became a reality April 25, 1991, when Gov. Joan Finney signed into law a bill making the Salina campus a K-State satellite.

The merger will take place over the next four years with the Salina campus becoming home to K-State's engineering technology program. The campus will offer two-year associate and four-year bachelor of technology degrees. The four-year electrical and mechani-

cal engineering technology programs at K-State will be phased out, but the 175 students currently enrolled in the technology courses here will be able to complete their degrees in Manhattan. New ET students will go to the Salina campus.

The merger will require a \$1.6 million, 15,000 square-foot addition to the international pilot training building, providing space for aviation technology labs required by K-State and the Fed-

eral Aviation Administration. Other expenses include \$1.7 million for a residence hall, \$2.4 million for a student union, \$700,000 for an addition to the technology center and \$1 million for roads and parking improvements and a campus entrance.

The merger is being financed by a combination of a Salina city sales tax, student fees, K-State scholarship funds for Salina students, the sale of 40 acres on the south edge of campus, and \$1.6 million from the state for the aeronautical center expansion.

The merged school will offer courses in pilot training and the following technology fields: aeronautical, construction, drafting and design, electrical, electronics, mechanical, metals, tool design, surveying, communications, chemical control and quality control.

"This merger is an important and positive step for K-State," Don Rathbone, dean of the College of Engineering, said.

Fox: 'No thanks, Yale'

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areas of engineering and statistics.

"While he's based here, he does work in many different areas," Soldan said. "We're trying to encourage that, and that's one reason Dean Rathbone worked so hard to put together a spot for him."

Rathbone is working hard now to find industrial and/or state support for Fox's research. In addition to the basic grant, the NSF will provide additional funds of \$37,500 per year on a dollar-for-dollar basis to match contributions from business and industry. Thus, total annual support for Fox's work with computer simulations of chemical reactions could reach \$100,000.

Fox explained that computer simulations allow industry to save steps and streamline manufacturing processes that involve chemical reactors.

"Things you're interested in producing on a vast scale you can't do in a little beaker," Fox said. "It costs a lot of money to make huge reactions and you need to be sure it's going to work before you do that."

His computer simulations might be applicable to the manufacture of nearly any kind of chemical product, including medicines. The product, he explained, is discovered by a chemist, than a chemical engineer like himself figures out how to produce it on a mass scale.

The NSF award is really only one of a long series of honors Fox has received. He has served as a Fulbright Fellow in Switzerland, was a member of the student exchange scholarship program to Justus-Liebig-Universitat, Giessen, Germany, and received undergraduate scholarships from Dow, Exxon and Conoco. In addition, he was awarded a NATO Postdoctoral Research Fellowship at Nancy, France, and an NSF graduate fellowship.

"Fox's outstanding capabilities have already been recognized through numerous awards," Soldan said. "In addition, he has established himself as an outstanding teacher. His experience teaching mathematics, statistics, and engineering courses in both English and French exemplify his commitment to teaching."

Fox is a K-Stater on more than the teaching and research level. He earned bachelor's, master's and doctoral degrees from K-State, with his doctoral thesis completed under Dr. L.T. Fan, department head, ChE. —

Sherry Wright, Manhattan Mercury

Hayter honored by alma mater

Richard B. Hayter, director of engineering extension, has been named a 1991 Distinguished Engineer by South Dakota State Univ. Hayter graduated with a B.S. in ME from SDSU in 1965. He received both a master's degree and a Ph.D. in ME from K-State in 1973 and 1975, respectively.

An active member of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Hayter was named as an ASHRAE Fellow in 1991, following a term as vice president of the 50,000-member international organization.

He has received numerous honors and awards throughout his career including being listed in *Who's Who in Engineering*, *Outstanding Young Men of America*, *Who's Who in the Midwest*, *International Who's Who in Engineering* and *Who's Who in Technology Today*.

KSU selected for electric vehicle research

The U.S. Dept. of Energy recently awarded a grant to KSU for electric car research. Total funding for the five-year project, including support from the ICE Corp. of Manhattan, Hancock Electric of Lyons and KEURP, a consortium of six Kansas utility companies, will be \$1.25 million. KPL is one of the six utilities participating in this development project.

Norman Jackson, vice president, electric engineering and transmission for Kansas Power and Light Co., and other KPL representatives made a recent visit to the KSU College of Engi-

neering to present a corporate donation toward the development of the electric/hybrid vehicle program.

Jackson presented the KPL gift to Engineering Dean Don Rathbone June 21 in Durland Hall.

nessor Jim Hague. Two electric vehicles will be delivered to the campus by early fall for testing and evaluation. KPL and others will test drive a long-range electric van with a 300-mile range in daily operations and collect performance and maintenance data on the van.

Hague said there is new interest in electric vehicles. "The vehicles were introduced in the 1970s during the gas crisis but were soon forgotten. Now, with the increasing concern with environment, these cars are ideal."

Sen. Bob Dole, R-Kan., in announcing the DOE grant, said he was pleased K-State was chosen, and the grant proves America is looking to Kansas to help develop 21st-century technology. He said Kansas talent, innovation and know-how are going to be a big part of America's future.

Baldwin cited for Dow award

Christopher A. Baldwin, junior in ChE, McPherson, Ks., has received the 1991 Dow Outstanding Junior Award. As part of the award, he is working this summer for Dow in Freeport, Tx.

This is the seventh time in last eight years that a K-State junior has been selected since the inception of the award.

Baldwin is also the recipient of the American Institute of Chemical Engineers Scholastic Achievement Award, presented to the chapter member with the highest academic average for the freshman and sophomore years.

He was a Goldwater Scholar in 1990, receiving a \$14,000 Congressional scholarship to study science and mathematics.

Aberle named ACEC scholar

Scott Aberle, junior in ME, from Morrill, Ks., has been selected as the 1991 Scholar of the Year by the American Consulting Engineers Council. He was chosen from a pool of 100 outstanding junior and senior engineering students from all over the United States.

He was presented with the \$5,000 award and a plaque May 21 at the ACEC's annual awards luncheon, this year held in Baltimore, Md.

"...Now, with the increasing concern with environment, these cars are ideal."

The Advanced Manufacturing Institute at KSU, a KTEC Center of Excellence, will begin an electric/hybrid vehicle site operator program in conjunction with the companies under the direction of K-State engineering pro-

Spring reunions at KSU

AgE Class of '51

The AgE class of 1951 held a 40th reunion dinner in Manhattan on April 23.

Classmates and their wives attending were: George and Natalie Armantrout, Joseph and Norma Collie, Bruce and Roberta Curry, Dan Dønneler, Evans and Marilyn Freese, Robert and Rosemary Fulmer, Waldean and Pauline Grauerholz, John and Paulina Jones, Gerald and Emma Kale, Don and Marge Kelly, Jay and Laura Murphy, Bill and Nancy Nikl, Don and Kathlyn Schoof, and George Teneyck.

Faculty from 1951, and their wives, in attendance were Gus and Helen Fairbanks, George and Sue Larson and Bill and Dorothy Funk. Also the current head of AgE and his wife, Stan and Diane Clark, attended the dinner.

Several in the group toured the Jeffrey Energy Center near St. Marys the afternoon of the 23, and then stayed over to attend K-State Reunion Days, April 24-25 on the campus.

EE Class of '41

Sixteen members of the EE class of 1941 met for a 50th reunion dinner April 24 in Manhattan.

Those in attendance were: C. Wilson Blackburn, William Ford, George Belt, Vernon Holman, Kenneth McIntire, Richard Allen, John Weary, Joseph Murphy, Roger Ghormley, Oliver Reilly, James Bradley, Louis Raburn, Allen Smoll, Robert Peterson, Alex Geldhof and Don Musil.

Retired professors O.D. Hunt and Joseph Wari, on staff in 1951, were at the dinner, as were current EECE head David Soldan and dean of the College of Engineering, Don Rathbone.



(l-r) Dean Eckhoff, dept. head NE, Ronald Brockhoff, jr. NE, and Don Rathbone, dean of college of engg.

W.I.S.E. program participant

Ronald Brockhoff, K-State junior in NE, was selected in a national competition for a 10-week public policy-making internship in Washington D.C. He was one of 16 winners in the U.S. who participated in the 1991 Washington Internships for Students of Engineering (WISE) from May 28 to Aug. 2.

Brockhoff learned how engineers contribute to public policy decisions on complex technological matters while working with the American Nuclear Society. Students were selected for the program based on evidence of leadership skills and interest in public issues and were under the guidance of a nationally prominent engineering professor.

The competition, which was coordinated by the American Society of Engineering Education, provided a stipend of \$2,400 plus a travel allowance. K-State's College of Engineering has had at least one student chosen every year for the last seven years of the 11-year program. There are more than 250 engineering schools in the country and Ken Gowdy, assoc. dean of engineering, said, "This is a very strong indication of the high caliber engineering students at K-State." K-State was the only institution with three winners in 1990.

Brockhoff, from Hiawatha, Ks., is the son of Carl and Gloria Brockhoff.

Student chapter garners awards

Kansas State University students brought home numerous awards from the Region Five Institute of Electrical and Electronic Engineers Conference held at the Univ. of Wyoming in Laramie, Wyo. Sixty-four schools participated.

The K-State chapter of IEEE received the outstanding chapter award, which is based on the type and amount of activities the chapter participates in and the growth of the chapter.

Bill Hudson, professor of EECE and

chapter adviser, was chosen as outstanding counselor based on chapter growth and student motivation.

Eve Quigley, graduate student in EE, received the outstanding student award. She is vice-chairwoman for IEEE.

Todd Howard and Ron Gurr, both seniors in EE, placed in the top five in a design contest where teams were given a problem statement and allowed eight hours to design, build and test for results.

Dyer named IEEE editor

Stephen A. Dyer, professor of EECE, was recently selected as editor of an engineering publication, **Institute of Electrical and Electronics Engineers Transactions on Instrumentation and Measurement**, for a four-year term beginning in Jan. 1992.

The IEEE is the world's largest technical professional society. Founded in 1884 by a few practitioners of the new electrical engineering discipline, today's institute is comprised of more than 320,000 members who conduct and participate in its activities in more than 130 countries. The institute also publishes nearly 25 percent of the world's technical papers in electrical, electronics and computer engineering.

Dyer will be in charge of the principal technical publication of the Instrumentation and Measurement Society, a bimonthly publication consisting of refereed research papers. Dyer will also work with three assoc. editors in Canada, Germany and Japan.

He received his B.S. in physics and M.S. and Ph.D. in EE in 1973, 1974 and 1977, respectively, from K-State. After working as an asst. professor at both Georgetown (Ky.) College and the Univ. of Kentucky, he joined the KSU faculty as an asst. professor in EE in 1983. From 1987 to 1989, he served as assoc. head in the department.

Graduation honorees

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Univ. of Waterloo, Ontario, Canada, in 1984.

Morcos is a member of the American Society for Engineering Education, Eta Kappa Nu, Sigma Xi, and Tau Beta Pi. He is a senior member of the Institute of Electrical and Electronic Engineers, and an honorary member of the Golden Key National Honor Society. He has received the Eta Kappa Nu Distinguished Faculty Award for the last four years, and in 1991 was named Advisor of the Year in the College of Engineering.

Deaths

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Oran E. Ferguson (CE '45), Pueblo, Co., died March 5, 1991, after a lengthy illness.

Marne J. Karlln (AgE '50), Grinnell, Ks., died Feb. 18, 1991. He was owner and president of MCK, Inc., a family corporation engaged in farming, and feedlot and grain elevator operation.

He is survived by his wife Carol and five daughters, four of whom graduated from KSU.

Kendrick D. (Ken) Fetrow (CE '57), vice president and general manager, phosphate minerals, at Mobil Mining & Minerals Co., died March 16, 1991, at his home in Richmond, Va. He had

been with Mobil's phosphate operations since 1967 and was chairman of the Florida Phosphate Council and a director of the Potash and Phosphate Institute, the Phosphate Rock Export Exchange Assoc., and the American Phosphate Foundation. He is survived by his wife Carolyn and their two children.

Durland Hall site of annual conference

Two hundred and nineteen investigators, students, regulators, industry representatives and consultants attended the sixth annual Conference on Hazardous Waste Research held at the College of Engineering's Durland Hall complex May 29-30.

The major focus of the conference was soil and groundwater remediation;

however, several sections were devoted to waste minimization as well as clean air management.

Fifty-eight papers, 24 posters, 16 exhibitors and three keynote speakers combined to provide information on recent developments and ongoing research valuable to those engaged in hazardous substance research.

In conjunction with the conference, members of the special committees of the Hazardous Substance Research Center, EPA Regions 7 & 8, met. The Center is a consortium of KSU and six other universities including Montana State Univ.; Univ. of Iowa; Univ. of Missouri; Univ. of Montana; Univ. of Nebraska, Lincoln and Univ. of Utah.



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