

*It's a fact . . .*

. . . that the first engineer to be given a place on the faculty at Kansas State University was Onzi P. Hood, who became professor of mechanics and engineering in 1889.

Vol. 16, Number 1

Spring-Summer 1981

## Groundbreaking sets stage for Durland construction

Rain dampened the scene but not the spirits of the 100 or so persons who turned out May 13 for groundbreaking ceremonies for Phase II of the Durland Hall Engineering Complex.

The weather was a repetition of the occasion in 1974 when groundbreaking took place for Durland Hall, Phase I. To carry tradition a bit further, "Even the shovel was the same," noted Dean of Engineering Donald E. Rathbone.

Durland Hall, Phase II will be a three-story, 106,000-square-foot extension of the older facility, which was completed in 1976. The two buildings will be architecturally similar and will be connected by a lobby.

The new building will house the Departments of Electrical Engineering and Mechanical Engineering, offices of the Dean of Engineering, classrooms and a computer laboratory. Construction is expected to begin early this summer, with opening of the building scheduled for 1983.

Phase II of Durland Hall is a result of the continuing effort to provide up-to-date facilities for the College of Engineering. Increasing enrollments have created a demand for more classroom and laboratory space. But an even more critical need is modern equipment for the laboratories, Rathbone said.

To help ensure that the College can keep abreast of changes in technology, a \$1 million capital campaign was launched in March to acquire funds for

purchase of laboratory equipment. Funds also will be used to establish distinguished professorships.

Already, more than \$150,000 has been raised, and Rathbone will be working closely with campaign coordinators in the next few months as fundraising efforts get further underway.

Architects for the Durland Hall project are Horst, Terrill & Karst, Topeka. The general contract has been awarded to R.D. Anderson, Topeka.

### Still true

"The whole purpose of this institution might be expressed as the removal of limitations. Our whole life is a struggle against surrounding limitations. The triumph of our modern life, with its magnitude of achievements, is the result of concerted action . . . Limitations as to space and time and power hold men in check. When once these are enlarged, new possibilities and new opportunities come, and a marvelous development follows. Herin has been the achievement of the engineer . . ."

From "The Removal of Limitations," Abstract of an address at the college assembly by C.E. Reid, Professor of Electrical Engineering, Kansas State Agricultural College, in *The K.S.A.C. Engineer*, December 1915.



Dean of Engineering Donald E. Rathbone turns the first shovelful of earth marking Durland Hall, Phase II ready for construction. From left are Gene Cross, vice president for University Facilities; State Rep. David Heinemann, vice chairman of the Joint Committee on Capital Improvements; and KSU President Duane Acker.

# Coordinators named for fund drive



**Carter**



**Eyestone**



**Mistler**

Three distinguished graduates of Kansas State University will serve as regional coordinators for the national campaign to secure \$1 million for the completion of Phase II of the Durland Hall Engineering Complex.

The campaign was announced in March by Dean of Engineering Donald E. Rathbone.

Coordinators are Charles T. Carter, retired president of ARCO Pipeline Co., Independence, Kan., Midwestern region; S. Fred Eyestone, vice president, Varian and Associates, Palo Alto, Calif., Western region; and Alvin J. Mistler, retired senior vice president of Armco, Inc., Middletown, Ohio, Eastern region.

The men will coordinate fund-raising activities of numerous other graduates and friends of the College of Engineering. Funds from the campaign will be used to purchase equipment for the building's research laboratories and to support distinguished professorships in the College.

Carter received a B.S. in mechanical engineering from K-State in 1938 and immediately began work with the Sinclair Refining Co. He is a member of the College of Engineering Advisory Council and a 1975 recipient of a Distinguished Service Award from the College.

Carter was elected president of Sinclair in 1966. After the company merged into the Atlantic Richfield Co. and became ARCO Pipe Line Co, Carter remained as president of the ARCO Division. He retired in 1979 and now serves as director of K.G.&E., the Electric Co., the Independence State Bank and the board of trustees of Independence Community College.

Eyestone was graduated from K-State in 1941 with a B.S. in electrical engineering, then joined the General Electric Co. as a test engineer. He also serves as a member of the College of Engineering Advisory Council, and is a 1961 recipient of a Distinguished Service Award.

Eyestone accepted a position as resident engineer in 1946 with North American Aviation, Inc., and was named president of the company in 1967. In 1970, he became vice president of Varian and Associates and president of the company's International Group.

Mistler was graduated from K-State in 1936 with a B.S. in geology and chemistry and later earned a master's degree in engineering geology from Vanderbilt University. Mistler received a

Distinguished Service Award from the KSU College of Engineering in 1981. He also is a member of the College's Advisory Council.

Mistler retired as senior vice president of Armco, Inc., in 1980, capping a 34-year career with the company. He joined Armco as a sales engineer in 1946, and was elected senior vice president and assistant to the president in 1979.

## Johnson to head Experiment Station

William H. Johnson, professor and head of the Department of Agricultural Engineering, has been named director of the Engineering Experiment Station at Kansas State University.

Johnson will replace Teddy O. Hodges, who had asked to be relieved of his duties to return to teaching in architectural engineering.

Johnson came to KSU as ag engineering department head in 1970, after a year as a visiting scientist and lecturer in the Department of Agricultural Engineering Texas A&M University. Prior to that, he had served on the faculty at Ohio State University, beginning in 1948 as an instructor in agricultural engineering and in the Ohio Agricultural Experiment Station.

Johnson has done extensive research, primarily in the areas of soil-plant-machine dynamics and harvesting. He also has done consulting work in India and the United States.

In announcing the appointment, Dean

**William H. Johnson**



of Engineering Donald E. Rathbone said of Johnson, "We were pleased to find such an outstanding researcher and administrator within our organization. He has proved himself in both categories."

Johnson received a bachelor's and a master's degree in agricultural engineering from Ohio State. He earned a Ph.D in agricultural engineering from Michigan State in 1960.

In his new position, Johnson will be responsible for coordinating research activities of faculty in the College of Engineering and for administering research funds from government and private sources.

## Former Ag Engineering department head dies

Frederick C. Fenton, 90, former head of the Department of Agricultural Engineering at Kansas State University, died in April.

Mr. Fenton became head of ag engineering in 1928 after teaching nine years at Iowa State University. In 1956, he joined the International Cooperation Administration in Washington, D.C., for foreign service in India. He returned to ag engineering in 1958 and retired in 1961.

Mr. Fenton received a bachelor's and a master's degree from Iowa State. He was a life fellow and past president of the American Society of Agricultural Engineers and served for 28 years as secretary-treasurer of the Kansas Committee on Relation of Electricity to Agriculture. He was also a member of

**Frederick C. Fenton**



the American Society for Engineering Education and the Kansas Engineering Society.

Mr. Fenton had done research in grain storage, rural electrification, farm structures and wind pressures and was a widely recognized consultant on machinery patents. A Fenton Agricultural Engineering Scholarship Fund has been established in his memory. The KSU Foundation is administering the fund.

# Education problems addressed

"I am most proud to claim that I am an electrical engineering graduate from K-State, and I say that most loudly, particularly when I am surrounded by (scientists) from Harvard and Wisconsin and Dartmouth and Yale."

So proclaimed the director of the National Science Foundation, who returned to his alma mater this spring to speak at a University Convocation.

John B. Slaughter, a 1956 graduate who was named to the NSF post in 1980, then went on to the main subject of his talk, the crisis in engineering education.

## Machine spots errors

Two "logic analyzers," gifts from Hewlett-Packard Co., are helping students and faculty members cut down the time they spend in locating errors in computer programs.

The equipment has been placed in the Microcomputer Laboratory in the Department of Electrical Engineering.

The analyzers trace the operation of a microcomputer as a program is executed. Any errors in the program can be spotted on the screen.

"The analyzers essentially act as troubleshooters for anyone writing computer programs or trying to find hardware problems," according to Donald Lenhart, associate professor of electrical engineering.

The immediate and urgent problems, according to Slaughter, are current personnel shortages at all degree levels in most specialties of engineering; severe faculty shortages; and obsolescence of university research and instructional apparatus.

Though engineering school enrollments have increased dramatically in recent years, the number of Ph.D.'s being produced has been declining, Slaughter said. This has caused severe staffing problems in the classrooms, as graduates reject teaching in favor of more attractive employment opportunities in industry.

If enrollment trends continue, personnel shortages in many areas could be relieved at the end of the decade, Slaughter said. But the problems experienced by engineering schools "call into question the assumption that enrollments can continue to increase indefinitely."

The academic ability of engineering students remains high, Slaughter said. But he is concerned about the declining interest in science and math among young people. The United States needs adequately trained engineers and scientists if it is to compete successfully with Japan and Western European countries. Japan already produces more engineers than the United States, and about 50 percent of all directors of industry in Japan have engineering qualifications, he said.



High school students from around the state got a lesson in computers from Jacob Smaltz, professor of industrial engineering, during the Engineering and Science Summer Institute in June. In the week-long program, an annual event, the students also explored such topics as lasers, solar energy, engineering job functions and the water crisis. With Smaltz is Doug Meredith, Topeka.

# Faculty members receive recognition

Ten College of Engineering faculty members received awards recently in recognition of contributions to their profession.

Robert L. Gorton, professor of mechanical engineering, William H. Dawes, assistant professor of engineering technology, and Larry A. Glasgow, assistant professor of chemical engineering, will share in an \$8,000 grant from the Halliburton Education Foundation in recognition of outstanding teaching.

The funds will be used for salary supplements and equipment or travel grants.

Gorton joined the Kansas State University faculty in 1960 as an instructor and received a Ph.D. from KSU in 1966. His major teaching areas are in the thermal sciences.

Dawes holds three degrees from

K-State, including a Ph.D. in electrical engineering granted in 1974. He joined the faculty in 1978 and teaches classes in electronic engineering technology.

A member of the K-State faculty since 1978, Glasgow received a Ph.D. from the University of Missouri in 1977. His major teaching area is transport phenomena.

Other faculty honors:

✓ The Glenn Murphy Award of the American Society for Engineering Education to J. Kenneth Shultis, professor of nuclear engineering. The award, which includes a \$500 honorarium, recognizes contributions to undergraduate and graduate teaching in nuclear engineering. Shultis, who is associate director of the Neutron Activation Analysis Laboratory at K-State, has taught and conducted research in nuclear power plant safety analysis and radiation protection.

✓ Western Electric Fund Award from the Midwest Section of the American Society for Engineering Education to Richard R. Gallagher, associate professor of electrical engineering. The award which carries a \$1,000 stipend, recognizes outstanding teaching and contributions to the engineering profession. Gallagher developed KSU's bioengineering program.

✓ "Young Engineer of the Year" title to Mark D. Schrock, assistant professor of agricultural engineering, awarded by the Mid-Central Region of the American Society of Agricultural Engineers for professional activities within and outside of ASAE. Schrock received a degree in agricultural engineering from K-State in 1969 and a Ph.D. in mechanical engineering from the University in 1978.

See Faculty, page 8

# Engineering students bring home honors

## Another design prize

Agricultural engineering students at Kansas State University have again won first place in the regional Allis-Chalmers student design contest, carrying off the top prize with a device that will make it easier for combines to travel between fields.

The award represents the fifth consecutive first-place showing by K-State teams in the annual contest sponsored by the Mid-Central Section of the American Society of Agricultural Engineers. K-Staters also have won first prize each year in all four of the society's national competitions held to date.

The 1981 regional winner, which the students named "O' Gobbler," is a header which extends to 40 feet during field cutting operations, then folds up into a 16-foot width for road travel. It was created by five students in a design class taught by G.E. (Gus) Fairbanks, professor of agricultural engineering.

O' Gobbler will be placed in national competition at an ASAE meeting scheduled for December in Chicago.

Members of the K-State team that designed the device are Timothy K. Beougher, Bird City; Joaquim A. Pipoli, Manhattan; Karl K. Visser, Wakefield; Russell B. Bauck, Vassar; and Tony K. Lippert, Clay Center.

Fairbanks said the outstanding win record by K-State students must be credited to a "little luck" and a lot of hard work.

With such success, motivation comes easily to his design classes, he said. "They don't want to be the first ones to lose."

Previous K-State winners in the design contests were the "Handy Hooker," a device which automatically replaces the draw bar on a tractor, 1980; a "Chip Chucker," which converts a farm truck for use as a manure spreader, 1979; a combine power unplucker, 1978; and a "post poker," a device which automatically sets posts and strings wire for electric fences, 1977.

## Top chapter

The K-State chapter of the American Society of Mechanical Engineers has been named the Outstanding Student Section in the Midwest. Selection is based on performance in such areas as membership development, meetings, publications and involvement in regional and national society activities. The section received \$100 and a commemorative plaque.



*Pictured with the award-winning O' Gobbler are members of the design team: from left, Timothy K. Beougher, Joaquim A. Pipoli, Karl K. Visser, Russell B. Bauck and Tony K. Lippert.*

## Student papers

Michael Granada, senior in industrial engineering from Salina, competed with engineering students throughout Kansas and Missouri to win an invitation to present a paper before the Kansas City chapter of the Society of Manufacturing Engineers. Granada also won \$50 for his paper, which described the design of a hammer handle.

James Coen, senior in civil engineering from Ottawa, won top prize in competition with students from 11 Midwestern universities for his paper on old truss bridges in Kansas. The report was delivered at Oklahoma State University at the Mid-Continent Conference of the American Society of Civil Engineers.

Taking second and third place in the

competition were K-State seniors Michael J. Scully, Overland Park, and Gene K. Atkinson, Houston, Tex. The three students won cash awards totaling \$225.

K-State earned an additional award for best participation at the meeting. Mark Jones, KSU senior from Salina, presided over the conference. Gary Weidman, junior from Salina, was elected president of the 1982 meeting.

## Scholarship

Susan Barsamian, senior in electrical engineering from Wichita, was selected by Kansas State University to receive a scholarship for study at Eidgenossische Technische Hochschule in Zurich, Switzerland. The scholarship will cover tuition, room and board and living expenses.

## New NSPE chapter formed

Approximately 70 students in the College of Engineering have been brought together as a chapter of the National Society of Professional Engineers (NSPE).

The chapter was formed upon approval of the Kansas Engineering Society.

Formation of a new chapter is contingent upon the endorsement of the state society as well as on selection of faculty advisors and appointment of student officers.

The 70 students who make up the Kansas State University chapter were formerly members at large of the NSPE. Having a chapter at K-State will make it easier to bring more students into the organization, according to Hermann Donnert, professor of nuclear

engineering and one of the NSPE faculty advisors.

Board chairman of the faculty advisors to the new chapter is Donald E. Rathbone, Dean of Engineering. Other advisors, besides Donnert, are Teddy O. Hodges, professor of architectural engineering; Robert Dahl, professor and head of the Department of Architectural Engineering; and Stuart Swartz, professor of civil engineering.

Allecia Remington, junior in chemical engineering from Overland Park, will serve as president. Other officers are: vice president—Polly Robinson, junior in chemical engineering from Overland Park; secretary—Curtis Janssen, junior in agricultural engineering, Solomon; and treasurer—Lynne Brockhoff, junior in chemical engineering, Hiawatha.

# Here's news from Engineering alumni



*James E. Schoof (AE '52), left, and Gerald V. Auchard (ME '65) have announced the opening of the firm, Schoof & Auchard, P.E., in Council Grove. A former Morris County Engineer, Schoof also has worked as a design and as a consulting engineer on irrigation and other agricultural projects in the United States and abroad. Auchard's background includes machine design, construction engineering, plant design and layout and alternative energy.*

**Harold Beemer (ME '49)** has retired as planning division chief for the Corps of Engineers' Ohio River Division after 32 years of federal service. During his career, he received a number of Outstanding Performance ratings along with many other awards for excellence.

**Phillip L. Woods (IE '61)** is director of industrial engineering maintenance operations for TWA in Kansas City.

**Craig Roberts (CE '69)** partner in Wilson & Co., Salina, has been named Outstanding Young Engineer by the Smokey Valley Chapter of the Kansas Engineering Society. Roberts won the

*This edition of the Impact Newsletter is published by the College of Engineering, Kansas State University, Manhattan, Kansas 66506. Subscriptions are available without cost upon written request. Material from this newsletter may be reproduced without permission, although credit to the source is appreciated.*

Dean of the College

**Dr. Donald E. Rathbone**

Director, Engineering Experiment Station

**Dr. William H. Johnson**

Impact Editor

**Carolee Stark**

Outstanding Engineer-in-Training award for the chapter and the state organization in 1973.

**Craig Roberts**



**George "Bud" Peterson (ME '75)** has received a faculty fellowship from the National Aeronautics and Space Administration for study this summer at the Johnson Space Center in Houston, Tex. He will be working on a model of heat pipes to be used on a manned space platform to orbit the earth in the 1990's. Peterson has been appointed an assistant professor of mechanical engineering technology at Texas A&M University beginning this fall.

**David M. Janssen (CE '77)** an engineer with Wilson & Co., Salina, won the 1981 Outstanding Engineer-in-Training award from the Smokey Valley Chapter of the Kansas Engineering Society. He has been involved with sanitary sewer design and water projects for Wilson.

**Thomas J. Tarbutton (EE '80)** is working in the radar engineering department of the Kansas City Division of the Bendix Corporation.

Eberline Instrument Corp., Santa Fe, N.M. Mr. Eberline remained as head of the company until 1963, when he resigned to pursue other business interests. The firm still bears his name.

Throughout his career, Mr. Eberline was active in many professional and civic societies.

Mr. Eberline received a Distinguished Service Award from the College of Engineering in 1967. A scholarship fund has been established in his memory. The fund will be administered by the KSU Foundation.

**D.C. Wesche (CE '39)**, 64, died in May, of cancer. Mr. Wesche was Manhattan city engineer during the 1940s. He later was named acting city manager, and was city manager from 1956 until 1972, when he became engaged in residential building in Manhattan. He also was operator for a number of years of Candy Cane Lane, a Christmas tree farm near Riley.

**Francis C. Fry (EE '29)**, Prairie View, Tex., died in October. He was a faculty member at Prairie View A&M University for a number of years. Mr. Fry graduated first in his class of 119 at K-State.

## Engineering graduates combine expertise

Three recent architectural engineering graduates from two separate consulting firms combined their expertise in the design of the Florence Wilson Elementary School under construction in Garden City.

According to Robert Dahl, head of the Department of Architectural Engineering and Construction Science, it is unique that the three consultants on the project are all graduates of the same department. The trio did the consulting work for the Gibson-Mancini architectural firm of Garden City on the \$1.75 million project.

Ron Brown, a 1976 graduate now with Dudley Williams & Associates, Wichita, did the structural design for the building. Don Norton, a 1975 graduate who works for Professional Engineering Consultants, Wichita, planned the heating, plumbing and air conditioning. The lighting and electrical system was designed by Clarence Waters, a 1978 graduate also with Professional Engineering Consultants.

Energy conservation was a major consideration in the design of the building.

## Deaths

**Howard C. Eberline**



**Howard C. Eberline**, a member of the College of Engineering Advisory Council and a 1942 Kansas State University graduate in electrical engineering, died in May.

Mr. Eberline was retired technical director of Kerr-McGee Corp., Edmond, Okla. After graduating from K-State, he worked as an instrument engineer at Los Alamos Scientific Laboratory. He left that position in 1953 to start

# Energy, Engineering "Dynamic Duo"

The relationship between energy awareness and the role of the engineer was demonstrated during 1981 Engineers' Open House through the theme, "Energy and Engineering, A Dynamic Duo."

Students carried out the theme in a variety of displays and projects, ranging from a passive solar energy system to energy-efficient machinery.

Students in construction science and in agricultural engineering captured the two top awards in display competition.

The Outstanding Display trophy went to construction science students for their project, "Passive Solar Energy." The winning display demonstrated the uses of passive solar energy and, among other features, included a listing of possible construction materials.

Extensive participation in Open House events and excellent quality in numerous individual displays helped capture the Outstanding Department trophy for the Department of Agricultural Engineering.

By winning the award for the third consecutive year, the department earned the right to keep the traveling trophy.

For the second year in a row, high school students were invited to participate in the Great Ramp Scamper Contest, which tested the students' ability to design a device which would make the speediest climb up a wire mesh screen four meters long and set at a 60-degree angle. Two students from Kincaid captured the award with a four-wheel drive mechanism utilizing a model airplane engine.

Open House also was the occasion for the presentation of Distinguished Service Awards and initiation of 30 students into the Knights of St. Patrick. Alwin H. Rector, Kansas City, and Alvin J. Mistler, Middletown, Ohio, were honored with awards for distinguished service to the engineering profession and to their alma mater.

Steel Ring, engineering honorary society, coordinated Open House activities.



The "Dynamic Duo" was aptly represented by Lisa Hoffmaster and Gene Russell, industrial engineering students, who roller skated along the parade route during Open House ceremonies.



Kansas State University, President Duane Acker, right in photo above, assists Kansas Secretary of State Jack Brier as he cuts the ribbon marking the opening of Engineers' Open House. Susan Barsamian, Wichita, and Mark Jones, Salina, below, reigned over the event as St. Patrick and St. Patricia.



A wire mesh screen four meters long and set at a 60-degree angle was the testing ground for high school students, who tried to design devices that would climb the ramp the fastest. The Great Ramp Scamper Contest was repeated for the second year in a row.





*Sherri Craig, above, explains automatic exposure control for darkroom enlarger that she helped design as an Open House project for the Department of Electrical Engineering. At left, Mike Palmer tells visitors about a design for groundwater recharge developed by students in civil engineering.*

## Two graduates receive honors

Two Kansas State University graduates who are former executives of major companies received Distinguished Service Awards from the College of Engineering this spring.

Alvin J. Mistler, Middletown, Ohio, and Alwin H. Rector, Leawood, were honored at the Engineers' Open House Awards Banquet. Both were recognized for contributions to KSU and to the engineering profession.

Mistler is retired senior vice president and assistant to the president of Armco, Inc., Middletown. A native of Leavenworth, Mistler received a bachelor's degree in geology and chemistry from KSU in 1936 and a master's degree in engineering geology from Vanderbilt University in 1937. He is a member of the College of Engineering Advisory Council.

Rector is retired senior vice president and manager of administration and support services of Burns & McDonnell, Kansas City, Mo. He is a 1937 graduate of KSU in electrical engineering, and a native of Lincoln.

Mistler began his affiliation with Armco in 1946. He became manager of the company's Midwestern Division in 1956, and in 1974 was elected vice president of Armco and president of the Division. Four years later he was elected group vice president of Armco International, HITCO, Metal Products Division and National Supply Co. He became senior vice president in 1979, and retired in 1980.

The Mistlers' three children are graduates of KSU. A son, Richard E., received a degree in chemical engineering in 1962 and another son, Thomas, graduated in nuclear engineering in 1963. Their daughter Barbara was a 1970 graduate in home economics.

Rector joined Burns & McDonnell in 1947. He managed a number of projects for the company, including the Atomic Energy Commission's "Rover" and "Pluto" projects, before becoming a partner of Burns & McDonnell in 1961. He advanced to vice president and manager of the Power Division in 1971, and to senior vice president of the company in 1976. He retired in 1980. A son, John S., received a degree in electrical engineering from K-State in 1976.



*Alvin J. Mistler, left, and Alwin H. Rector received Distinguished Service Awards during Engineers' Open House this spring.*

## Research grants total \$500,000

Research grants totaling about \$500,000 were received recently by faculty members in the College of Engineering.

Among the grants is \$225,000 to Nasir Ahmed, electrical engineering, for his study, "Test Plan Considerations of Microprocessor Based Systems." The study is being funded by Sandia Laboratories, Albuquerque, N.M.

Also included is \$75,000 to L.T. Fan, chemical engineering, for "Stochastic

Study of Local Fluctuations Around the Distributor in a Fluidized Bed Gasifier," funded by the U.S. Department of Energy; \$60,000 to N. Dean Eckhoff, nuclear engineering, for "Statistical Analysis of Failure Data," from Edgerton, Germanhausen and Grier Idaho, Inc.; and \$42,000 to Bob L. Smith, civil engineering, for "Development of a Handbook of Operating Practices for Local Roads and Streets," from the Kansas Department of Transportation.

## Faculty, from page 3

✓ The Ralph R. Teetor Educational Award from the Society of Automotive Engineers, Inc., to Subhash C. Sinha, assistant professor of mechanical engineering. The award is given for contributions to education and research, leadership in student activities and participation in engineering society activities. Sinha's major research and teaching areas are dynamics, vibrations and stability of systems.

✓ The James Hollis Award for Excellence in Undergraduate Engineering Teaching to Donald R. Hummels, associate professor of electrical engineering. Hummels came to K-State in 1970 after 13 years with Motorola, Inc., and teaches courses in the analysis and design of electronics communication systems. He received his award at College of Engineering commencement exercises in May.

✓ Upper Level Outstanding Faculty Member Award to Earl E. Baugher, assistant professor of agricultural engineering. Granted by the KSU College of Agriculture for excellence in teaching and service to agriculture. Baugher teaches courses in farm power and agricultural mechanics methods.

✓ The Outstanding Advisor of the Year Award, initiated this year by Engineering Student Council, went to James K. Koelliker, associate professor of civil engineering, in appreciation and recognition of the "thankless task" of academic advising, according to the students. Koelliker has been at K-State since 1973.



*College of Engineering students are using the Energy-Environment Simulator from the College's Center for Energy Studies to teach primary and secondary school students and others how energy supply and demand works. Participants decide which sources of energy they wish to use for various purposes and the computer will then calculate the effect on resources and the environment. At left is Paul Briggs, graduate student in nuclear engineering who directs the program. With him is Richard R. Hayter, director of the Engineering Extension Service, which is primarily concerned with energy conservation.*



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