

# IMPACT

Kansas State University College of Engineering

Vol. 30, Number 2

Spring 1995

## College recognizes Conoco

Kansas State University's College of Engineering and Tau Beta Pi, its all-engineering honorary, honored Conoco Inc. as the Company-of-the-Year for 1994-95 during ceremonies April 24.

Representatives from the Houston-based company, all K-State graduates, were on campus to be recognized and make formal presentations in various classes. The day's events also included a tour of campus facilities and visits with students and faculty members.

All three guests, Gary Edwards, executive vice president, Robert W. Stone, manager of product supply and



Left to right, Dean Don Rathbone, Randy Schwartz, Don Unruh, Michael Krier, Gary Edwards, Sarah Roschke, Bob Stone and Brian Combs gather at the entrance to Durland Hall to commemorate the 1995 Company of the Year events.

commercial marketing, and Donald R. Unruh, vice president of business development and optimization, were presented special plaques and recog-

nized as distinguished lecturers at the banquet. Edwards was also recognized as the Tau Beta Pi Man of the Year and was speaker at the banquet.

K-State's Company of the Year award, first presented in 1974, is given to companies committed to engineering education and to high standards and quality performance in the *continued on page 2*

## Workshops guide underrepresented engineers at Kansas State University

The Minority Engineering Program at Kansas State University offers 10 different workshops, each one held four times a week throughout the semester, to help underrepresented students in the engineering field.

The seminars, called Workshops in Student Excellence, or WISE, are offered for certain math and science classes. Frank Smith III, WISE program coordinator, said students who take part in these workshops are not tutored; instead they are able to work their problems out with other students and a facilitator, who is usually an upper-level or graduate student.

"What we're doing is giving the students the opportunity to get together

with others and help them with some of the road blocks they might run into—to guide them in a sense," said Smith, who is a doctoral student in curriculum and instruction.

Attendance is mandatory for incoming and transfer students and voluntary for others. Sessions are held Monday through Thursday evenings in Seaton Hall on the K-State campus. The workshops deal with math and science courses because "for engineering students those are measures of success," Smith said.

The workshops began five years ago at KSU to help improve the grades of underrepresented engineers, he said. *continued on page 2*

## Fan receives research award

L.T. Fan, distinguished professor of chemical engineering, was recognized at an Engineering Experiment Station luncheon March 30 for individual achievement in research excellence for work performed during the last five years.

Fan was the first recipient of the Engineering Research Excellence Award from Kansas State University's College of Engineering. *continued on page 2*

# Fan receives research excellence award

*continued from page 1*

The award, which will be presented annually, consists of \$1,000 and a certificate.

"L.T. Fan has had an exemplary research career," said Donald E. Rathbone, dean of engineering, who established the award. "His work has advanced chemical engineering research in multiphase processes, process systems engineering and many, many other areas. As the holder of 12 patents, author of seven books and more than 600 technical articles, he has influenced chemical engineering research worldwide and is unquestionably recognized as a world leader in his field."

During the last five years, Fan has coauthored 62 refereed and 33 nonrefereed articles, presented 117 papers at national and international meetings and written two books. He received three patents and numerous research grants.

Fan's technical articles cover numerous fields including particulate science and technology, chemical reaction engineering, biochemical engineering and biotechnology, pollution control and systems of engineering.

He has been recognized many times for outstanding research. At K-State, he received the Distinguished Graduate Faculty Member Award in 1972-73, the Phi Kappa Phi Scholar of the Year



**L.T. Fan**

Award from the K-State chapter in 1983, and the Sigma Xi Outstanding Scientist Award at K-State in 1989. He was the first recipient of the Inoya Award from the Society of Powder Technology in 1986. He received

the Irvin Youngberg Award in applied sciences in 1987 from the University of Kansas; an honorary doctorate from the Univ. of Veszprem in Hungary in 1990; and the Hausner Award from the Fine Particle Society in 1992.

Fan has headed the department of

chemical engineering since 1968. He earned his bachelor's degree in 1951 from National Taiwan Univ. He first came to K-State as a student, and earned his master's degree in chemical engineering in 1954. After completing a Ph.D. in chemical engineering and a master's degree in math from West Virginia Univ., he returned to KSU in 1958 as an instructor. He served as assistant professor from 1959-61, associate professor from 1961-63 and professor from 1963-84. He has served as a university distinguished professor since 1984. He was also a visiting research professor at Cambridge University, England, from February to August 1965 and a visiting professor at the University of Sydney, Australia, in 1979.

## Conoco: Company of the year for '95

*continued from page 3*

engineering profession, said Don Rathbone, the dean of engineering.

"This is one way of saying 'thanks for your help,'" Rathbone said.

While on campus the Conoco representatives interacted with between 300 and 400 KSU students, he said, giving students an opportunity to ask questions and learn from professionals.

"It gives them an insight as to what to expect when they go into industry,"

Rathbone said. "They bring a lot of aspects that are important for the students to help them grow."

He said the Company of the Year Award is good for everyone involved. Students enjoy meeting people who actually work in the industry, and the companies selected are honored to take part.

"When both groups feel good about it, you know it's been a success," Rathbone said.

## Workshops guide underrepresented engineers at KSU

*continued from page 1*

far, the workshops seem to be getting the job done. Students who take advantage of the workshops have improved their grades and the benefits don't end there.

"It helps them with their confidence," Smith said. "Students have said it makes a difference, because they have someone to go to when they have a question."

The funding for the workshops comes from a grant from the ARCO Foundation in California said Karen Martin, director of the Minority Engineering Program. The program received \$22,500 for 1995-96.

"This provides the necessary foundation for the students in order for them to experience greater success," Martin said, referring to the workshops.

Smith has been the WISE program coordinator for three years and he said seeing students succeed and learn to help each other is a real motivator.

"We've had a lot of success but one student told me she wouldn't have had the academic success she did without the workshops," he said. "It was good to see her succeed."



Dean Don Rathbone, left, and Karen Martin accept a check for the Minority Engineering Program from Tom DeScioli of Arco on Feb. 2.

# Eckels is first to win new industry award

Steven J. Eckels, an assistant professor of mechanical engineering at Kansas State University, has won the New Investigator Award, the first conferred by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

According to William Seaton, manager of research at ASHRAE's Atlanta headquarters, the award not only honors Eckels for his teaching and research, but provides \$15,000 in research funding for one year, with the possibility of up to an additional \$15,000 for the second year for dollar-for-dollar matching funds he can find from an industry source.

Eckels led the field of 13 nominees for the award. According to Byron Jones, head of the department of mechanical engineering at KSU, who nominated Eckels, "He met the criteria of having received his doctorate within the past five years and he is doing some interesting research and testing with refrigerants. And, since he has been here at KSU only a short time, we have not found a major research project for him. Winning this award enables him to devote more resources to research he is already doing. He's also as active a researcher as anybody you're going to find."

As part of the nomination process, ASHRAE requested nominees to submit a research plan they would follow should they receive ASHRAE funding. Eckels proposed to continue developing a refrigerants laboratory where he has been testing new refrigerants to replace the R-11, R-12 and R-22, which have been banned or will be by 2010 because of their impact on ozone.

Eckels said manufacturers of refrigerants bring him new products which he tests for their heat transfer capabilities. He then uses the data he develops to "further derive fundamental correlations on the academic side."

"We're focusing on ways to make better evaporators and condensers," Eckels said, "and testing them to see how they work with these new refrigerants. We're like a screening tool to help manufacturers decide if their replacement (refrigerants) will work."

Eckels said he is currently conducting research funded by a gift from DuPont. "This (ASHRAE) award will



**Steve Eckels**

help us continue that research," he said.

Jones said Eckels was involved in an ASHRAE-funded project as part of his Ph.D. research. "I anticipate he'll be doing a lot of work for ASHRAE for a number of years," he said.

"This is a prestigious award," Seaton said. "Selection is based on competence in engineering based on the nominees' achievements to date, their potential for continued professional growth as research engineers, and their potential for significant development as educators and academic leaders in the training of future engineers."

Eckels came to Kansas State University in 1993 after receiving his doctorate from Iowa State University. His areas of expertise are in heat transfer, fluid mechanics and two-phase flow.

ASHRAE, founded in 1894, is an international organization of 50,000 members. Its objective is to advance the arts and sciences of heating, ventilation, air conditioning and refrigeration through research, standards writing and continuing education.

## **Wanted: Nominees for Hall of Fame**

Nominations are being accepted for those to be named to the Engineering Hall of Fame Class of 1995. This year's initiation ceremony and banquet will be held on Sept. 29, 1995.

Eligibility is limited to engineering graduates from Kansas State University with one exception permitted each year. A minimum of 20 years professional experience is required and the following four criteria taken into account: success in chosen career, active involvement in and support of the College of Engineering, active involvement in and support of KSU, and professional public service.

Deadline for nominations is June 16, 1995. These should be sent to: Hall of Fame; College of Engineering; 146 Durland Hall; KSU; Manhattan, Kan. 66506-5104.

## **Michelle Munson honored by Kansas Women in Energy**

Kansas State University student Michelle Munson, Junction City, is the recipient of a \$500 scholarship and one-year membership from Kansas Women in Energy Inc.

Munson, senior in electrical engineering and physics, received the scholarship based on her academic qualifications and her essay on how to integrate electrical engineering, science, public policy and leadership through serving in a federal leadership position in science and technology policy.

Munson serves as an Engineering Ambassador and is president-elect of the Institute of Electrical and Electronic Engineers, a member of the National

Collegiate Honors Council executive committee, Engineering Student Council and Student Alumni Board.

Academic honors include a Goldwater Scholarship. She came to K-State as a U.S. Presidential Scholar and was awarded a KSU Presidential Scholarship. She also received the Sandia National Laboratory Outstanding Science Student award.



**Michelle Munson**

# Open House 1995: U

## Open House award winners March 31–April 1

- Yellow Brick**—Mechanical Engineering
- Outstanding Department**—Biological and Agricultural Engineering
- Open Class**—Civil Engineering
- Limited Display**—Construction Science
- Curriculum Display**—Architectural Engineering
- Freshman/Sophomore Class**—Electrical Engineering
- Technical Display**—Biological and Agricultural Engineering
- Graduate Award**—Biological and Agricultural Engineering

- St. Pat**—Kevin Goering
- St. Patricia**—Stacy Mull
- W. Leroy Culbertson Steel Ring Leadership Scholarship**—Cynthia Glotzbach, junior in civil engineering
- Advisor of the Year**—Kuo-Kuang Hu, Civil Engineering



### Advisor of the Year

During the Open House banquet, Dean Don Rathbone honors Kuo-Kuang Hu, professor in civil engineering, as the advisor of the year.



Stacy Mull and Kevin Goering, the St. Patricia and St. Pat honorees, enjoy the parade.

Left, construction science students display their vision of big dreams and confident promises during the Open House parade.

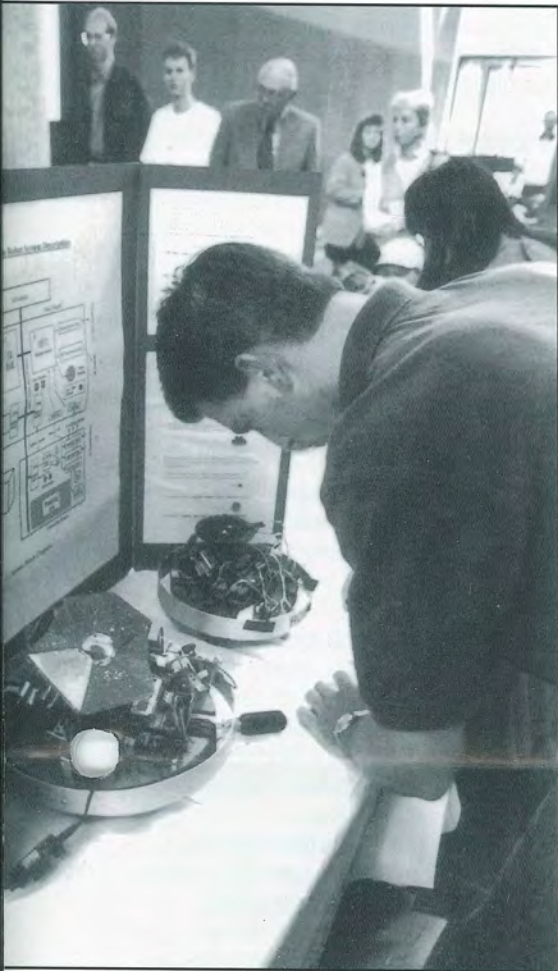


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# Unleash the Potential



Examines the inner workings of one of the robots described in the Durland atrium.



Above, Jeff Pihl, standing at right, looks on as Chris Kneisler, junior in electrical and computer engineering, makes last minute adjustments to his robot during the robot sumo competition. Below, "ladies" from chemical engineering are having a good time during the parade, in spite of the cool temperatures and cloudy weather.



Department of information science students march smartly past Anderson Hall during the parade.



**Kenneth M. Hale (EE '43)** retired in 1990 from Harza Int'l Engineering Co., Chicago, as a project resident engineer. He had previously retired in 1980 from Colorado-Ute Electric Generation and Transmission Assoc., as Vice-president of the Transmission, Construction and Operations Division. He and his wife Rhoda now live in Montrose, Colo.

**Arthur C. Cotts (EE '49, M.S. '50)**, Silver Spring, Md., was recently inducted into the Hall of Fame of the Kappa Sigma Chapter at K-State.

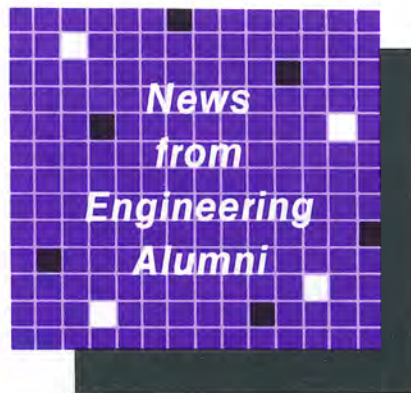
**Calvin Eugene Moeller (ME '50)**, M.S. '51) retired from Federal Division, Black & Veatch, K.C., Mo., as senior engineer in 1993 and has moved to Republic, Mo., near Springfield to raise and promote Missouri Fox Trotting Horses. His wife Nadine continues to show and win her favorite horse, Missouri Merry Legs.

**James L. Riggs (CE '54)**, Raytown, Mo., retired in Jan. 1995 after 40 years service with HNTB Corp. and HNTB Int'l. He was project manager on a number of major highway and toll road projects.

**Carl W. Sessler (ME '55)**, Saratoga, Calif., just completed 35 years at Lockheed. He is a sr. staff engineer and hopes to work another "year or two." He extends a special greeting to all who worked in the kitchen at Southwest Hall, 1953-55, for Mrs. Nernburg and Trixie Fausion.

**Ben J. Cunningham (IE '59)** is retired and lives full-time in his RV, enjoying travel and volunteer work through the group SOWERS (Servants on Wheels Ever Ready).

**Ralph R. Scott (ME '59)** retired in 1993 after 34 years of engineering and management services at RCA Astro-Electronics in New Jersey, AeroJet ElectroSystems in California, and INTELSAT at California and Washington, D.C. locations. The last several years he had been director of ground network engineering and programs at INTELSAT headquarters in Washington. He and his wife Linda now reside in Twain Harte in the Sierras of Northern California.



**Everett E. Steinhauer (EE '59)**, Hazelwood, Mo., retired from McDonnell Douglas in Aug. 1992 after 34 years of service.

**Mel Kopf (EE '61)**, Topeka, Kan., has retired from his position as Vice President Network Texas, with Southwestern Bell.

**Ray E. Huebner (EE '62)** and his wife Glee are returning to the USA after nine years overseas. They worked two years in Germany and seven in Saudi Arabia, and now plan to reside in Dallas, Texas.

**Benjamin T.F. Chung (M.S. ME '62, Ph.D. ME '68)**, professor and department head of mechanical engineering at the Univ. of Akron, has been awarded the F. Theodore Harrington Engineering Professorship. He has been at UA for 23 years and is known as one of the country's leading experts in the field of heat transfer.

**Ted Kelley (EE '65)** has been transferred by ABB Power T&D Co. to their plant in Alamo, Tenn., where he is project manager for new business opportunities.

**Steve Furman (ME '78)** is transferring from Overland Park, Kan., to Naperville, Ill., to the corporate headquarters of the Nalco Chemical Co. where he will be working as a market development manager in the electric utility industry.

**Bryan Harold (CIS '78, M.S. '82)** has been named senior technical staff member at IBM in Austin, Texas. This position is second only to IBM Fellow, the highest that a technical person can

rise to in the corporation. He has been with IBM since 1982.

**Tracy White (ChE '78)** and his wife Connie (Bus. '78), Longview, Texas, announce the birth of their second child, Lisa May, Dec. 3, 1994. She has an older brother Chad, 10.

**Floyd A. Badsky (ET '79)**, Vacaville, Calif., has been promoted to Lt. Col. and is operations officer for the 615th Air Mobility Control Squadron providing worldwide command and control for mobility aircraft.

**Alan Felsted (CnS '80)** is the new sr. programmer for Interactive Digital Access in Orlando, Fla.

**Amer Alani (CE '82)** married Deborah Brungardt, a graduate of Washburn Univ. They live in Overland Park, Kan., where Amer is a project manager for Huntington.

**Melissa McCullick Brodbeck (IE '82)** and her husband Harry announce the birth of their first child, Nicholas Chester, Dec. 19, 1994. Melissa is assist. quality mgr. for Michigan Automotive Compressor, Inc., Parma, Mich.

**Bryan N. Harnden (EE '82)**, Bellefontaine, Ohio, has accepted a position as assistant manager of technical administration for Honda Research and Development. He received his MBA from Rockhurst College, Kansas City, Mo., in May 1994.

**Dean L. Hiebert (ARE '83)** and Susan Allison-Heibert, Geneseo, Ill., announce the birth of their second set of twins, Katherine Allison and Sarah Marie, Aug. 22, 1994. Dean is office manager for the Illinois regional office of Ament Engineering Assoc., a full-service consulting engineering and land survey firm.

**Rick L. Olberding (CE '83)**, Lee's Summit, Mo., announces the birth of a daughter, Rebecca Renee, Aug. 20, 1994.

**John S. Alexander (EE '84)** received his M.S. in computer engg., from Iowa State Univ., in Dec. 1994. He and his wife Kay (Milling Sci. '85) and daugh-

ters Kayley, 5, and Jenna, 2, live in Cedar Rapids, Iowa, where John is a project engineer with Rockwell International.

**Todd A. Bednar (CnS '84)** has accepted a position as a project manager with Wesinco, Inc., Cary, N.C., a laboratory casework and renovation company.

**Tony Thomas (ChE '84)**, Kobe, Japan, wants to inform friends and classmates that he survived the earthquake, "a little frazzled, but unscathed." He is back at work as a design technical service engineer with Goodyear Tire & Rubber Co., and plans to "stick around for awhile to witness the re-birth of a city."

**Philip Iwinski (IE '84)**, Peachtree, Ga., is a project manager for Latin America for Avery Dennison. He received his M.S. in international business studies from the Univ. of S.C. in Dec. 1993. He and his wife Debbie have two children, Sarah, 6, and Philip Jr., 4.

**Mark R. Pichler (ME '84)** and his wife Kim, Detroit, Mich., announce the birth of their first child, Christopher Robert, Feb. 19, 1995. Mark just changed positions from an engineering mgr. at Batten Corp., to a program mgr. at Pico Industries. He received his M.B.A. in 1992 from East Michigan Univ.

**Subbar Ramachandran (M.S. NE '85)** is an engineer in charge of waste management and transportation of medical research wastes and HM waste processing at the Environmental Protection Branch, National Institutes of Health, Bethesda, Md.

**Steven W. Dunning (EE '86)** completed his M.S. in aeronautics from Embry-Riddle Aero. Univ. and resigned from the USAF in Sept. 1994. He was recently promoted to project manager at the Bradbury Co. He and his wife Brenda (EE '85) and two daughters, Haley and Lauren, live in Hutchison, Kan.

**Michael (Buzz) T. Sanderson (EE '86)**, Concord, N.H., is now in patent law school at Franklin Pierce.

**Lyle Carter (EE '87)**, Moore Okla., and his wife, Jayne, announce the birth of their first child, Megan Elise, 17 Feb 1995. Lyle is chief of Secure Networks Systems Section for the 38th Engineering Installation Group, Tinker AFB. Jayne is a '93 doctor of pharmacy from the University of Oklahoma and is a practicing pharmacy clinician at Children's Hospital of Oklahoma, Oklahoma City.

**Kathleen Reece Danahy (IE '87)** and her husband John, Rockwell, Texas, announce the birth of their first child, John Connor, Feb. 21, 1994. Kathleen is currently on leave from Nationsbank in Dallas where she is a project change manager.

**John D. Bish (M.S. EE '88)** has accepted a position with the Pritchard Corp., Overland Park, Kan., as an instrument engineer.

**Tim Kuckelman (IE '88)**, after four years with The Gap as facility engineer, has accepted a position as distribution director for Hallenstein's, in Christchurch, New Zealand. He and his wife Lauren are expecting their first child in May.

**Peter M. Wroblewski (ARE '88)** and his wife Michelle announce the birth of their second child, Sarah Kathryn, Jan. 21, 1995. Peter is an electrical engineer with Albert Kahn Assoc., Inc., Detroit, Mich.

**Shaun Moore (IE '89)** and his wife Amy announce the birth of a son, Landon Wyatt, Jan. 23, 1995. Shaun is a project engineer in the office of the chief executive for Wilcox Electric, Kansas City, Mo. He received his MBA from Webster Univ. in May 1993.

**James O. Cate II (Inf.Sys. '90)** and his wife Kimberly announce the birth of their first child, James O. Cate III, March 2, 1995. James is a program analyst for World Span, K.C., Mo.

**Tom Gellenthien (ME '90)** is now practicing patent law in Alexandria, Va., with Fisher and Assoc.

*continued on page 8*

## What's new?

We'd like to know—and so would your former classmates. Please take a few minutes to jot down job changes, professional or other activities, your retirement or remembrances you'd like to share. Use this form, or write to Mike Dorcey, the editor of IMPACT, using one of the addresses to the right.

Name \_\_\_\_\_

Major/Class year \_\_\_\_\_

Address \_\_\_\_\_

News for IMPACT \_\_\_\_\_

Return to: IMPACT Editor, College of Engineering, Kansas State University, 146 Durland, Manhattan, KS 66506-5104, or fax to 913-532-6952 or E-mail at mdorcey@oz.oznet.ksu.edu

**Ramesh A. Iyer (M.S. EE '91)** is employed as firmware engineer with Sierra Semiconductor, San Jose, Calif. He married Meera Krishnaswami Jan. 26, 1995.

**Janean Holt Rehkemper (ARE '92)** and her husband Eric announce the birth of their first child, a daughter, Cori Adele, March 1, 1994. Janean works at AAI/Campbell Inc., Collinsville, Ill.

**Chris J. Russell (MET '93)** and Jennifer M. Coash (CE '94), Cheyenne, Wyo., were married Dec. 31, 1994. Chris is a locomotive engineer for Union Pacific.

**Ahsan Razzaq (ME '93)**, Chicago, Ill., is a logistics coordinator at Proctor & Gamble, Karachi, Pakistan. He and his wife just had their first son, Shehzad.

**Michael L. Hopkins (EE '93)** is a senior engineer at McDonnell Douglas Aerospace in St. Louis.

**Paul Wagner (CnS '94)**, Lenexa, Kan., is employed in the Power Division of Black & Veatch. He works in the Construction Management Department, International and Domestic Products.

### Deaths

**George Clifford Henderson (Eng. '38)** died May 18, 1994, in Katy, Texas. He is survived by one daughter and two grandchildren.

**Thurston William Stein (ME '39)** died Jan. 11, 1995. He is survived by his wife Virginia, one son, and three grandchildren. He had lived in Ventura, Calif., the past 40 years.

**Keith D. Dombaugh (IE '51)**, Bluff City, Kan., died of cancer Oct. 24, 1993, after a seven-year struggle with the disease.

**Glen R. Garrison (ME '59)**, Napa, Calif., died Feb. 21, 1994. He is survived by his wife, Mary H. Garrison.

## Messenheimer, ME prof, dies

Alva Earnest Messenheimer, 91, died April 17 at the Meadowlark Hill Retirement Health Center in Manhattan.

Born at Admire, Kan., Aug. 24, 1903, Messenheimer graduated from KSU in 1924 with a B.S. in electrical engineering. He worked for Westinghouse in the development of electrical railway equipment from 1924 to 1927 and then worked for Beaver Traction Company until 1930. He taught mathematics at Clay County Community High School from 1931 to 1937 and sold life insurance until 1942 when he came to Kansas State to teach machine design.

While at KSU, Messenheimer helped develop graphics and patent invention courses. He retired in 1971.

He is survived by his wife, Mae, of the home; one son, Alva D., of Chandler, Ariz.; and one daughter, Janet Louise Jones, Washington, D.C.



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