

NSF Travel Grant Boosts Research

Millions of dollars can be saved by the U.S. in its research programs by sharing research information with investigators in foreign lands. Such sharing often saves repeating what has been conducted somewhere else.

It is often presumed that the U.S. investigators are at the forefront in all areas of research. Unfortunately, this is simply not true.

So says Dr. L. T. Fan, Kansas Power and Light Company distinguished professor of chemical engineering at KSU, an expert in the field of environmental pollution. He points out that high quality research being done in Japan, for instance, in the areas of air and water pollution predates that being done in the U.S. "Of course we are ahead of them in many areas. So both sides benefit."

Hence, the U.S. stands to save millions of dollars annually by learning the results of research done overseas and by sharing the results of its own work.

One example of that collaboration is an arrangement between KSU and Kyoto University. The National Science Foundation recently granted a two-year supplemental appropriation of \$5,000 for travel expenses to the K-State group.

Fan, professor and head of chemical engineering and director of Institute for Systems Design and Optimization at KSU notes that "environmental pollution is a very complex problem and its solutions require the use of systems analysis and systems engineering methodologies.

This grant is for supplemental financial support for two ongoing research projects, "Urban Air Pollution Control Systems" and "Development of Water Quality Models Using Spectral Analysis and Parameter Estimation Techniques."

Through periodic visits to each other's campuses, "we feel that the degree of efficiency of the cooperative effort between two groups can be enhanced. Cooperation is being carried out through exchanges of progress reports, results, data and references, mutual assistance and consultation, and joint seminars and conferences," Fan said.



FIRST KNIGHTS OF ST. PATRICK — Four seniors are the first recipients of the College-wide designation, Knight of St. Patrick, for outstanding service to the College combined with academic excellence. Named to knighthood by Dean Ralph G. Nevins (c.) (l. to r.): Alan W. Johnson, agricultural engineering; David J. Kuckelman, chemical engineering; Dale I. Ellis, mechanical engineering; and Mike R. Pacey, electrical engineering.

Service Award to Kimel, Open House "Successful"

"Most successful in recent years." That pretty much sums up the reaction to the 48th annual Engineering Open House held March 17-18 at Kansas State University in Manhattan by the student body of the College of Engineering.

Some 7,000 persons attended. Attendance was no doubt boosted because a sample of Apollo 12 moon rock was on display. Also, there were several concurrent events which had visitors on campus for other reasons.

In addition to scores of student-developed displays and exhibits, Western Electric of Lee's Summit, Mo., sent two engineers to display their Picturephone. Visitors appeared to enjoy using it.

Top individual display, determined by a panel of judges, was an entry on "The First Kansas Made MOS Transistors" developed by seniors in electrical engineering. The winning department was mechanical engineering.

Gov. Robert B. Docking proclaimed the week of March 12-18 as KSU Engineering Open House Week in the state. On Wednesday and Thursday, students voted for Open House royalty: St. Patrick, the

engineers' patron saint, and his lady, St. Patricia.



Dr. W. R.
Kimel

On Thursday, March 16, two meetings of importance were conducted: semi-annual gathering of the KSU College of Engineering Advisory Council and first annual meeting of the Engineering Dean's Club, a new fund-raising organization.

Formal opening ceremonies were held at 5:45 Friday evening on the front steps of Seaton Hall, main engineering building at K-State. Dr. Ralph G. Nevins, engineering

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K-S NE Faculty Develop New Safeguards Course

Argonne (Ill.) Center for Educational Affairs has awarded a grant to three K-State nuclear engineers to develop the first full-semester university course in nuclear materials safeguards.

The project, led by Dr. Walter Meyer, professor of nuclear engineering, involves development of a programmed instructional full-semester course using individually prescribed instruction (IPI) techniques.

When completed, the course will also be available for professional nuclear engineers and scientists either for a course or for self-teaching.

For the past three years, the Argonne Center has offered, under the sponsorship of the Atomic Energy Commission's Office of Safeguards, lecture courses to professionals. The contract with KSU is aimed at introducing the teaching of safeguards in institutions offering instruction in nuclear engineering.

Meyer and his co-investigators, Dr. Curtis G. Chezem and Dr. N. Dean Eckhoff, indicated they are consolidating a "voluminous amount of material into a concise course to be taught to senior level undergraduates as well as graduate students."

Meyer said, "we wrote an IPI course and made that available for KSU students this spring."

At the end of spring semester, "we talked to students who took the course to evaluate the IPI materials. Hopefully after taking this course and getting appropriate experience students should be capable of qualifying as a nuclear materials manager," Meyer said.



Meyer



Eckhoff

Discuss 'Energy Crisis' At High School Meeting

A symposium on "The Energy Crisis" for science and mathematics instructors in Kansas was held Saturday, March 18, during the 48th annual KSU Engineering Open House.

Coordinated by Dr. Kenneth K. Gowdy, assistant dean of engineering, the symposium included three presentations by KSU engineering faculty members.

Making presentations: Dr. Robert L. Gorton, associate professor, mechanical engineering, "Energy Resources of the Earth"; Dr. Curtis G. Chezem, professor and head of nuclear engineering, "Nuclear Fuel Cycle and Waste Management"; and Dr. Douglas A. Wallace, assistant professor, civil engineering, "Pollution Problems Associated with Energy Processes."

Gowdy indicated that the symposium is slated again next year. The date has not been selected.

December Grads 'Successful' In Getting Engineering Jobs

December graduates of KSU's College of Engineering have been reasonably successful in locating jobs, reports Dr. Bruce Laughlin, director of the KSU Career Planning and Placement Center.

In releasing data concerning the initial placement of K-State engineers who earned B.S. degrees in December, Laughlin reported that 52 of 98 graduates had been employed as of March 31.

Relatively few of the remaining 46 list themselves in the ranks of the unemployed. One was an international student who has since returned to his homeland; 11 entered military service; and 17 have continued their studies in graduate school.

This leaves six from whom Laughlin had not heard and 11 who were actively seeking jobs as of March 31. Of the 18 civil engineering graduates placed, a surprisingly large number—12—found jobs in Kansas.



OPEN HOUSE ROYALTY — Jan Renee Townsend, Leoti, Kan., and Kent Killmer, senior in civil engineering from Leawood, Kan., reigned over the 48th annual KSU Engineering Open House March 17-18 as St. Patrick, the engineers' patron saint, and St. Patricia, his lady.

Kansas High School Sophs, Juniors In K-State Institute

Involvement of professional engineers in complex multi-disciplinary social and technological problems will be an important area of inquiry for 100 of Kansas' brightest mathematics and science students this June.

Recently selected, these students will be at K-State to take part in the eighth annual Engineering and Science Summer Institutes (ESSI).

Visiting high schoolers will consider important contemporary issues such as water pollution in Kansas, protein from petroleum, personal uses of computers, the question of the need for rationing energy, and alternatives in transportation.

Two one-week sessions of ESSI are planned, June 11-16 and June 18-23, said Dr. Kenneth K. Gowdy, KSU's assistant dean of engineering and ESSI director.

Participants will be chosen on four points: academic standing, proficiency in science and mathematics, extracurricular activities, and interests.

Students now classified as sophomores and juniors in high school will explore career and educational opportunities in 12 technological fields.

ESSI is sponsored by the KSU College of Engineering and the 10 Kansas Engineering Society chapters. Cost for each participant will be \$40. Many will receive KES Scholarships to pay part or all the cost.

COMING EVENTS

There will be three summer institutes conducted by the KSU College of Engineering of interest to alumni and friends of the University.

The annual Engineering and Science Summer Institutes for Kansas high school sophomores and juniors are set for June 11-16 and June 18-23. Some 100 students will take part, says Dr. Kenneth K. Gowdy, ESSI director and assistant dean of the College.

Dr. Walter Meyer, professor of nuclear engineering, is directing two institutes: "Nuclear Engineering for Teachers of Technicians and Technologists," for college instructors June 19-July 28, sponsored by the Atomic Energy Commission; and "Power of Society on the Environment" for high school teachers June 25-August 18 funded by the National Science Foundation.

Alumni Contributions Total \$38,155



FIRST ENGINEERING DEAN'S CLUB MEETING — The first annual meeting of the KSU Engineering Dean's Club took place March 16 at the Manhattan Country Club. In attendance (l. to r.): Seated—Claude Wilson, Harry Wege, Daric Miller, Ralph Nevins, Donald Christy, Lawrence McDonald. Middle—John Mitcha, Roy Bainer, Willard Balderson, Martin K. Eby Jr., Fred Eyestone, Tom Skinner, Dwight Nesmith, Curtis Chezem. Top—Bob Clack, Charles Holle, LeRoy Culbertson, Howard Eberline, Dale Olsen, Bob Miller, Cecil Best, R. G. Taecker.

Sprague Gets Teaching Award In College, Check for \$500

Dr. Clyde H. Sprague, 35-year-old KSU associate professor of mechanical engineering, April 28, was granted the second annual College of Engineering \$500 award for excellence in undergraduate teaching.

Recognition of Sprague, native of Kincaid, Kan., was made by Dr. Ralph G. Nevins, KSU's dean of engineering, at an engineering faculty meeting.

Sprague, who received his B.S. in 1958 and M.S. in 1963 at K-State (his Ph.D. is from Purdue), was selected by the student-faculty advisory committee of the KSU Engineering Center for Effective Teaching (CET).

"Dr. Sprague has been a leader in educational innovations, particularly in individually prescribed instruction. In

addition, he has devoted considerable time to program and course development in mechanical engineering. He is continually recognized by his students and faculty colleagues as an excellent teacher in addition to being a thorough and able researcher," Dr. Nevins pointed out.

A color portrait of Sprague and a plaque will be placed in a display case in the lobby of Seaton Hall, main engineering building at K-State. Sprague will get permanent possession of them in May, 1973.

In April, 1971, Sprague was the recipient of the teaching effectiveness award of the American Society for Engineering Education (ASEE) midwest section, made up of engineering colleges in Kansas, Nebraska, Oklahoma, Missouri, and Arkansas.

Sprague received a previous ASEE teaching award. In 1970 he was the Dow Award winner from the midwest section. It provided his travel expenses to the ASEE annual meeting in June at Ohio State University.

He has been consecutively rated 32, 22, 4, 1, 1, and 2 by students in their evaluations of instruction the past six semesters in the College of Engineering. The evaluation is coordinated by the Engineering Center for Effective Teaching headed by Dr. Paul L. Miller Jr., associate professor of mechanical engineering.

Sprague's research activities are in biomedical and environmental engineering. He is an automatic controls specialist.

Eyestone Joins Council, Bainer, Peltier Retire

The KSU College of Engineering Advisory Council has gained one new member and lost two others to retirement.

The new member is S. Fred Eyestone, 1941 electrical engineering graduate who is vice president, Varian Associates, Palo Alto, Calif. He attended his first meeting as a council March 16.

Two distinguished KSU engineering alumni retired from the Council as of the March 16 semi-annual meeting: Roy M. Bainer, engineering dean emeritus, University of California, Davis, and Adm. (Ret.) Eugene J. Peltier, president, Ordrup, Parcel and Associates, St. Louis. Bainer was given an appreciation plaque at the March meeting by Dr. Ralph G. Nevins, KSU's engineering dean, on behalf of the College. Adm. Peltier received his in absentia.

Up from \$20,917
Total in Late May

Between Jan. 26 and May 17, total contributions to the fund appeal issued last July 15 by Dr. Ralph G. Nevins, KSU engineering dean, increased from \$20,917 to \$38,155. In addition, a total of \$13,564 in pledges has been received from individuals who have joined the KSU Engineering Dean's Club.

Dean Nevins points out that a total of \$7,498 has been received through the Dean's Club, \$9,078 from the \$/Year² Club, and \$14,835 in gifts designated for Ward Hall, the new \$900,000 addition to the nuclear engineering facilities.

The Dean's Club (members pledge \$500 or more to be paid within five years) now has 61 members. Dean Nevins continues to be pleased at the growing total of 597 engineering alumni who have joined the \$/Year² Club, agreeing to contribute \$1 annually for each year that has passed since their graduation from the College.

There are a total of 161 individuals and firms which have contributed gifts specifically for the Ward Hall addition.

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Support Needed For Worthy Projects

The KSU College of Engineering and the engineering department from which you were graduated are in continuing need of substantial endowment support for scores of very worthy activities and programs not covered by state appropriations.

There are many ways to support K-State engineering programs. We suggest unrestricted gifts for the Dean to use where they are most needed. Other ways include student scholarships and fellowships, faculty research and professorships, equipment, honorary or memorial awards, etc. Contributors can give annually through the \$/Year² Club and the Dean's Club. Also through such deferred giving programs as annuities, wills, bequests, life income plans designed to benefit YOU FIRST and the College or department second.

For more details, please phone (AC 913 532-5590) or write to:

Dr. Ralph G. Nevins, Dean
KSU College of Engineering
Seaton Hall
Manhattan, KS 66502

KSU ENGINEERING ALUMNI NEWS SPRING 1972

Editor's Note: The response to KSU Engineering Alumni Newsletter continues to be very enthusiastic. In the first issue of this publication, Dean R. G. Nevins asked for alumni to write in and indicate their opinions of the need for such a publication. The informal vote by letter was 30 in favor, no one voting no.

Looking forward to hearing from you soon. — Thomas A. Gerdis, Editor.

PROMOTED . . .

John A. Angold, EE '38 (1740 Pembroke La., Topeka, Kan.); from director of technical research and development, Santa Fe Railway, Topeka, to special assistant to vice president-operations, Chicago.

Roger W. Slinkman, EE '43 (Ottawa Dr., Ottawa, OH 45875); appointed vice president, Electronic Tube Div., GTE Sylvania; with firm since graduation from KSU; married to former Loisjean Angstead, fs; three children: Craig, Kerry and Kevin.

Lonnie J. Robbins, CE '47 (204 N. Indiana Ave., Vista, CA 92083); owner-manager, Management Services, new business in Vista; from 1962 to 1970 was in charge of 12.5-mile aluminum pipeline construction in the Grand Canyon.

Capt. Floyd J. Tucker, CE '53 (Washington Science Center, Rockville, MD 20852); effective April 20, became commanding officer, ship Discoverer, of the National Oceanic and Atmospheric Administration (NOAA); wife, Nadine; will be based in Ft. Myers, Fla.

Kenneth C. Adamek, EE '56 (2000 N. Memorial Dr., Tulsa, OK 74151); appointed director, quality assurance, Tulsa Div., North American Rockwell; registered professional engineer in Oklahoma and Texas; wife, former Joanne Ketchum; two children, Vince, 13, and Norman, 9.

Donald Lee Cahoon, CE '59 (4705 Willow Spring, Little Rock, AK 72206); promoted to district engineer, Arkansas Highway Dept.; married to former Alice Galentine, Bazaar, Neb.; four daughters—14, 12, 11 and 8.

EDUCATION . . .

James D. Wegener, EE '69 (6120 N. 30th Ave., Phoenix, AZ 85017); worked three years with Goodyear Aerospace, Phoenix; now enrolled at Thunderbird Graduate School of International Management, formerly the American Institute of Foreign Trade; plans overseas employment next December.

LeWayne C. Becker, ME '71 (1807 College Hts., No. 6, Manhattan, KS 66502); has NDEA fellowship to work on a graduate degree in mechanical engineering at KSU.

Roland William Case Jr., IE '71 (3508 Meadow La. Pl., La Crosse, WI 54601), with Trane Co., La Crosse; studying toward master of business administration degree at Wisconsin State College, La Crosse.

Herbert D. Ball, ME '72 (39 Blue Valley Tr. Ct., Manhattan, KS 66502); received his Ph.D. in mechanical engineering at KSU in March 1972.

RETIRED . . .

L. M. Jorgenson, EE '07 and '31 (730 Laramie, Manhattan, KS 66502); retired from the KSU department of electrical engineering.

James W. Pryor, ME '22 (2608 Tracy Ave., Kansas City, MO 64108); retired in 1964 after 36 years of vocational teaching in Kansas City; previously taught at Prairie View (Tex.) A & M College and Lincoln University, Jefferson City, Mo., 1922-28; two daughters, two grandchildren.

L. D. McDonald, ME '23 (11 W. 70 Terr., Kansas City, MO 64113); retired consulting engineer; son is a KSU graduate.

L. W. Newcomer, CE '23 (1139 W. Central, El Dorado, KS 67042); retired from Kansas Turnpike Authority; now a consultant.

George V. Mueller, ME '24 and EE '25 (1821 Timberlane Dr., Springfield, OH 45504); retired in 1969 as technical adviser, Robbins & Myers, Inc., manufacturer of pumps, motors and generators; taught in Purdue's School of Electrical Engineering, 1925-1957; since 1969, chairman, engineering, department, Clark State Technical College, Ohio.

Harry L. McGee, EE '26 (11651 Grove St., Seminole, FL 33542); former football captain; president, senior class at KSAC; retired from Switchgear Div., Westinghouse Electric; "enjoying the good life on the Suncoast."

James C. Richards, ChE '34 (255 N. Portage Path, Akron, OH 44303); president, B. F. Goodrich General Products Co., Akron; wife, former Erma Jean Miller, KSU '34; after June 1, will reside at Miller Ranch, Emmett, KS 66422; received KSU Distinguished Service Award in Engineering in 1961-1962; two children, five grandchildren.

Prof. Harvey F. Dietrich, IE '57 (918 Bertrand St., Manhattan, KS 66502); retired from KSU industrial engineering faculty since 1967.

L. Haller Recalls Memorable Events Of '34 Open House

The following is a letter written on March 9 by Lawrence Haller, 1000 S. Oxford, Grosse Point, Mich. 48236, reminiscing about the early days of the KSU Engineering Open House. Haller is a 1938 chemical engineering graduate of K-State.

Gentlemen:

The other night I read in your newsletter about your upcoming Open House. It brought back some memories of one 34 years ago. In those days we had a St. Pat's Prom at which time St. Pat and St. Patricia were announced and crowned. Sigma Tau was responsible for the prom and I happened to be president of the chapter that year.

This particular St. Pat's Prom was memorable since it was the first time that a name "Big Band" had been brought to the Kansas State campus. We had Fletcher Henderson, the old "Christopher Columbus" swing band. Dean Seaton told me that he spent several sleepless nights worrying about the amount of money we had committed for the band.

Tickets were sold out weeks ahead and it was quite a party. Old Nichols gym was made up into a colorful ballroom with false ceiling and all.

An unfortunate incident occurred which also made the Prom memorable. Tickets were being scalped and in such demand that some students had forgeries printed. They were detected at the door and because of a capacity crowd most of the unsuspecting purchasers of the forgeries had to be turned away.

The forgeries were later traced and two or three students' school terms came to a quick end that semester.

DEATHS . . .

Charles H. Blake, CE '13 (804 Hoyt Ave., Everett, WA 89201); died last June 28.

W. E. Gibson, Arch '52 (2216 Claflin Rd., Manhattan, KS 66502); died recently; had been life member, Kansas Engineering Society; retired from Kansas Highway Commission in 1966.

HONORED . . .

Loren C. Ellis, ME '61 (9797 Davona Dr., San Ramon, CA 94583); staff propulsion engineer, United Airlines; received UA's administration award, its highest employee recognition; wife, former LeNora Younkers, KSU '61; son, Brendan.

Dr. Jason C. Annis, ME '69 (1325 Hudson Ave., Manhattan, KS 66502); appointed to national eight-member Major Appliance Consumer Action Panel (MACAP).

ALUMNI NEWS

CLASS NOTES . . .

W. E. McKibben, EE '25, now residing at 91 E. 209 St., Euclid, OH 44123.

Roy M. Bainer, AgE '26, engineering dean emeritus, University of California, Davis; was in charge of the 1926 Engineering Open House at KSAC.

Harold Guy Owen, ChE '31, now residing at 11179 Cameo Dr., Sun City, AZ 85351.

Donald Christy, AgE '33 (Box 103, Scott City, KS 67871); member, Kansas Senate; KSU Engineering Advisory Council; KSU Endowment Assn.; married to former Helen Shedd; three children, five grandchildren.

Dr. Earle L. Kent, EE '35 and '36 (2600 Oakland, Elkhart, IN 46514); director of research, Oaklawn Psychiatric Center, Elkhart; had been with C. G. Conn Ltd. 30 years as director of research, development and design; native of Oakley, Kan.

Millard W. Wilcox, CE '35 (9315 W. Iowa Pl., Lakewood, CO 80226); construction coordinator, Western and Pacific Northwest regions, National Park Service; three sons; plans to retire in 1974.

A. H. Rector, EE '37 (8448 Meadow La., Leawood, KS 66206); vice president, Burns McDonnell Engineering Co., Kansas City; manager, power division.

Harold A. Gardner, ME '39, new mailing address, P. O. Box 352, Langdon, NC 58349.

John F. Gaumer, EE '39 (P.O. Box 10678, Houston, TX 77018); operates his "Directory Factory Representatives" Company in Houston.

Dr. William H. Honstead, ChE '39 and '46 (1926 Montgomery Dr., Manhattan, KS 66502); new member, Kansas Engineering Society; director, Kansas Industrial Extension Service.

Jay H. Payne, AgE '39 (725 E. Republic, Salina, KS 67401); new member, Kansas Engineering Society.

Pete F. Parhomek, ME '43 (5811 W. 78th Terr., Prairie Village, KS 66208); new member, Kansas Engineering Society.

Atty. A. Donald Messenheimer, EE '47 (815 Connecticut Ave., Washington, D. C. 10006); senior partner, law firm of Burns, Doane, Benedict, Swecker & Mathis.

Ronald Dwight Wenger, ME '48, now residing at 413 W. Alpine, Apt. K, Upland, CA 91786.

R. L. Clarke, EE '49 (7425 Springfield, Prairie Village, KS 66208); with Black & Veatch Consulting Engineers.

William D. Predmore, CE '49 (644 E. Wilson, Salina, KS 67401); new member, Kansas Engineering Society.

Robert F. Leach, EE '50 (116 N. 3rd, Osborne, KS 67473); city superintendent, Osborne.

William B. Powell, CE '50 (1022 Funston, Salina, KS 67401); head, general



PARTICIPATE IN ENGINEERING ALUMNI SYMPOSIUM — Those attending the 4th annual KSU Engineering Alumni Symposium March 18 during Engineering Open House (graduates through the Class of '39): (Seated, l. to r.)—Roy Bainer, AgE '26; Claude Wilson, ME '25; L. W. Newcomer, CE '23; E. E. Howard, CE '25; and Herbert Low, EE '24. Middle row—Harry Wege, EE '25; Elmer Thom, EE '31; L. M. Van Doren, CE '38; P. O. Lautz, EE '32; and Alley H. Duncan, EE '37. Top row—L. S. Hobson, EE '27; LeRoy Culbertson, ME '39; A. H. Rector, EE '37; Warren Lyttle, EE '33; Horace Miller, EE '36; and F. E. Johnson, EE '29.

technology, Kansas Technical Institute, Salina; new member, Kansas Engineering Society.

D. R. Ross, ME '50 (415 Wabash Ave., Effingham, IL 62401); vice president and general manager, Norge-Fedders Corp., Effingham.

Ernest J. Schmidt, ME '50 (1501 N. 2nd, Atchison, KS 66002); with Rockwell Mfg. Co.; assignment, special process engineering; wife Lola teaching in grade school; three daughters.

Prof. Robert L. Mason, ME '51 (P.O. Box 4289, Lubbock, TX 79409); associated with Texas Technical University, Lubbock, for 30 years.

Leonard Sence, ME '51 (656 Hobby Horse La., Milford, OH 45150); marketing manager, Industrial Pump Div., Allis-Chalmers; wife, Joan; three sons—Dave, Tim and John.

Dr. L. T. Fan, ChE '54 (830 Lee, Manhattan, KS 66502); spent March at Kyoto University, Japan, conferring with Dr. T. Takamatsu on systems engineering approaches in environmental pollution control.

John P. Dollar, EE '56 and '66 (1414 Humboldt, Manhattan, KS 66502); KSU instructor, electrical engineering; married to former Diane Hills, KSU '55 and '67; two children, Allison and Matthew.

Dr. Donald H. Lenhart, EE '56 (Rt. 2, Box 26, Westmoreland, KS 66549); new member, Kansas Engineering Society.

Donald E. Schneider, CE '56 (4216 W. 18th, Wichita, KS 67212); has passed Professional Engineering Examination in Kansas

Dr. Do-Sup Chung, AgE '60 and '65 (1518 Pierre, Manhattan, KS 66502); became a naturalized citizen of the U.S. Feb. 18.

Dr. Larry E. Erickson, ChE '60 (408

Wickham Rd., Manhattan, KS 66502); spent March 1972 in Japan conferring with investigators at several research centers including Kyoto University.

Dr. C. L. Hwang, IE '60 (1604 Virginia Dr., Manhattan, KS 66502); became a naturalized citizen of the U.S. Feb. 18.

Don A. Rathbun, EE '61 (5620 - 84th Terr., Overland Park, KS 66207); married, two daughters; registered professional engineer; associated with Bendix Corp.

Rodney D. Nicholson, EE '62 (1310 Dunswoth, Wichita, KS 67212); has passed Professional Engineering Examination in Kansas.

Marvin L. Price, AgE '63 (Box 68, Sedan, KS 67361); project engineer, Soil Conservation Service; past three years on Twin Caney Watershed; wife, former Karen Thompson, Burdett, Kan.; three children—9, 8, and 5.

Jerry L. Rathbun, NE '63 (1304 Hillsdale Dr., Monroeville, PA 15146); married to former Sandra Shilling, KSU '61; two children; with Westinghouse near Madison, Pa.

David A. Warner, ChE '66 (8915 LaEntrada, Whittier, CA 90605); singing with Burgundy Street Singers, nationally known group which started at KSU.

Gene P. Rathbun, NE '67 (1503 Pleasant View Dr., Monroeville, PA 15146); married, one son; with Westinghouse near Pittsburgh, Pa.

Larry R. Condit, EE '68 (1920 Yosemite Dr., Milipitas, CA 95035); designing metal oxide semiconductor large-scale integrated circuits for Four-Phase Systems, Inc., Cupertino, Calif.

Daniel Jay Shiel, CE '68, now residing at 4916 Canterbury, Shawnee Mission, KS 66205.

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ALUMNI NEWS

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Michael J. Reiter, EE '68 (1506 N. E. 49th St., Kansas City, MO 64118); with Kansas City Power & Light as a distribution engineer since October 1970; a daughter, Michelle Ann, 2; was with TWA three months following graduation as an aircraft electronics engineer before joining KCP&L.

William J. (Bill) Gates, ME '69, now residing at 404 Riverbend, Baytown, TX 77520.

Gregory P. Hanson, ME '69 (9370 Dudley, Taylor, MI 48180); recently moved from Kansas City to work for Ford Motor Co. as a process engineer; his wife, former Arlene Fair, manages a private tutoring center.

Bruce Yamashita, EE '69 (7012 Main St., Apt. 8, Westminster, CA 92683); joined Bechtel Corp. Jan. 31; received MSEE in 1970 from Long Beach State; received MBA in 1971 from Fullerton State; passed national EIT exam; working part-time on Ph.D. in EE at University of Southern California.

Chris Chapman, ME '70, now residing at 1850 Stevens Dr., W., Apt. 125, Richland, WA 99352.

Don William Fleming, EE '70, now residing at 1120 Warren Dr., Columbia, SC 29210.

David C. Hall, EE '70 (725 W. Brown, Tempe, AZ 85281); design engineer, Motorola Government Electronics Div.; working on MSEE at Arizona State.

Dr. Gerald Potts, ME '70 (1588 Delia Ave., Akron, OH 44320); with Central Research Laboratories, Firestone Tire & Rubber, Akron; spoke to KSU Applied Mechanics colloquium Feb. 24 on "Analytical and Experimental Studies of the Vibration of Radial Tires."

Dr. Clarence A. Bell, ME '71 (3409 - 74th St., Lubbock, TX 79413); associate professor of mechanical engineering, Texas Technical University, Lubbock.

Farrokh Fattahi, EE '71 (520 E. Magnolia Blvd., Apt. R., Burbank, CA 91501); with Lockheed California Co., married.

Kenneth Alan Hill, ME '71 (Rt. 4, Hutchinson, KS 67501); with Westinghouse Electric, Pittsburgh, Pa., since Jan. 10; received his KSU degree in December.

Thomas William McCormick, CE '71 (918 Hemlock, Junction City, KS 66441); facilities engineer, U.S. Civil Service, Ft. Riley, Kan.; married to former Julia Lynn Gillen.

Wade Glenn Michaelis, EE '71 (320 Holly Pl., Manhattan, KS 66502); with J.C. Penney Co., Manhattan; wife, former Gayla Lamoree.

Michael Allan Nottingham, ME '71 (Rt. 2, Effingham, KS 66023); with Page Airways, Atchison, Kan.

Roy W. Rathbun, NE '71 (430½ Chestnut St., Greensburg PA 15601); with Westinghouse nuclear plant near Madison, Pa.

Firms, Foundations Match Contributions By College Alumni

Seven more companies or foundations—Abbott Laboratories, Cities Service, General Cable Fund, B.F. Goodrich, Gulf Oil Foundation, Humble Oil Education Foundation, and Standard Oil (Indiana) Foundation—matched the contributions of KSU engineering grads working for them.

Other firms which have matched contributions this academic year: Allis Chalmers, Armco, Dow Corning, General Electric, Hercules, Hesston Mfg., IBM, Oklahoma Gas & Electric, Phillips Petroleum, and Westinghouse.

Charter memberships in the Dean's Club and \$/Year² Club will remain open through June 30, 1972. So there is sufficient time for you to join one or both of the clubs if you have not had an opportunity to do so yet.

Please send your check or money order (made out to KSU Endowment Assn.) to Dean R. G. Nevins, KSU College of Engineering, Seaton Hall, Manhattan, Kan. 66502. His phone number is Area Code 913 532-5590.

Listed below are charter members of both clubs who sent in their gifts between Jan. 27 and May 17. Contributions received on May 18 or later will be published in the next issue of this newsletter.

DEAN'S CLUB . . .

George W. Boys, '33; Glenn I. Johnson, '28; and LeRoy C. Paslay, '30.



INNOVATIVE TEACHING TECHNIQUE—Dr. Clyde H. Sprague (1), associate professor of mechanical engineering, is a leading user of IPI (Individually Prescribed Instruction) teaching techniques, a self-teaching approach used in three departments in the College. Dennis Dodds, senior, used a taped instructional aid in learning uses of a strip chart recorder.

\$/YEAR² CLUB . . .

Frank E. Nordeen, '22; LeRoy C. Paslay, '30; Mrs. Alice E. Gregory, '31; Ralph C. Hay, '32; Russell E. James, '32; George W. Boys, '33; Blair C. Forbes, '34; Capt. Henry Albert Boggs, '36; Harold A. Gardner, '39; Dr. William H. Honstead, '39; Glen Francis Doel, '43; and George W. Peterkord, '43.

Guy M. Shelley Jr., '48; Dr. John C. Lindholm, '49; Merle Edwin Schwab, '49; Jack O. Greenwalt, '50; Royce Roland Larsen, '50; Donald Rex Ross, '50; Daniel F. Scherrer, '50; Clayton L. Ferguson, '51; John C. Counter, '61; and Marvin J. Paige, '65.

Francis C. Dennis, '66; Arnaldo Marangoni, '66; H. Chang Chung, '67; Francisco S. Martino, '67; Gary Bak Lee, '69; Ronald D. Wenger, '70; Dennis Frey, '71; Thomas B. DeBaun, '72; and Dale I. Ellis, '72.

WARD HALL DONORS . . .

Frank E. Nordeen, '22; Evert Eric Ericson, '38; Edward P. Smith, '39; and Lloyd Smith, '47.

*Denotes KSU engineering faculty member.

\$/Year² Club Participation By Class

Graduating Class	No. of Donors	Total Dollars Given	Graduating Class	No. of Donors	Total Dollars Given
1904	1	67	1943	10	280
1905	0	0	1944	3	81
1906	0	0	1945	1	26
1907	0	0	1946	3	75
1908	0	0	1947	9	216
1909	1	62	1948	10	230
1910	1	61	1949	24	528*
1911	2	120	1950	25	525
1912	0	0	1951	20	400
1913	0	0	1952	7	133
1914	0	0	1953	7	126
1915	2	112	1954	5	85
1916	2	110	1955	4	64
1917	1	54	1956	6	90
1918	3	159	1957	10	140
1919	1	52	1958	9	117
1920	1	51	1959	11	132
1921	1	50	1960	25	275
1922	3	147	1961	22	220
1923	3	144	1962	10	90
1924	1	47	1963	18	144
1925	4	184	1964	23	161
1926	4	180	1965	25	150
1927	1	44	1966	33	165
1928	1	43	1967	29	116
1929	3	126	1968	44	132
1930	5	205	1969	34	68
1931	1	40	1970	55*	55
1932	3	117	1971	8	8
1933	4	152	1972	2	
1934	10	370			
1935	5	180			
1936	5	175			
1937	5	170			
1938	6	198			
1939	12	384			
1940	3	93			
1941	8	240			
1942	2	58			
				597	

1. Most total dollars given by a class.
2. Largest number in any KSU engineering graduating class who joined the \$/Year² Club.
3. May 1972 graduates who are \$/Year² Club members are not required to pay their first \$1 contribution until a year after graduation.

Open House Successful, E.E. Has Best Exhibit

(Continued from Page 1)

ean, was emcee and crowned St. Pat and t. Patricia.

Open House was conducted from 6 to 9 p.m. Friday and from 9 a.m. to 4 p.m. Saturday.

Saturday morning the fourth annual KSU Engineering Alumni Symposium was held in the K-State Union with Dean Nevins speaking on "The Future of Engineering Education in Kansas." Dr. Cecil H. Best, associate dean, presided over discussion of that topic following Dr. Nevins' talk.

K-State's Engin-Dears, a College of Engineering auxiliary of attractive non-engineering major coeds, distributed programs to visitors and served lemonade.

Mrs. Curtis Chezem entertained the wives of returning engineering alumni with a presentation on the acquisition of unusual Mexican art objects.

Dr. William Robert Kimel, former head of nuclear engineering at K-State and now dean of engineering at the University of Missouri, Columbia, received the KSU Distinguished Service Award in engineering at an awards banquet Saturday evening. The presentation was made by KSU President James A. McCain.



Sue Seyfert



Janet Hull

Two Engineering Coeds In Top Organizations

Two outstanding coeds enrolled as juniors in the KSU College of Engineering this past academic year have been named to prestigious organizations in the College.

Janet Hull of electrical engineering was tapped for membership in Sigma Tau, college-wide honorary. Suzanne Seyfert of chemical engineering was named to Steel Ring, select senior honorary which each March conducts the activities of Engineering Open House.

Miss Hull, 20, is from Bozeman, Mont. Her father, Dr. Maurice W. Hull, received his D.V.M. at K-State and formerly resided in Clay Center, Kan.

The 21-year-old Miss Seyfert is the daughter of Mrs. Mildred Seyfert, Rt. 4, Pratt, Kan. Miss Seyfert attended Pratt (Kan.) Community Junior College before transferring to K-State.

Last year, Laree Mugler, Clay Center, made both Sigma and Steel Ring. Miss Mugler graduated in May from mechanical engineering and now has an engineering position in Kansas City, Mo.



SNELL TEACHES BRIDGE DESIGN WITH ICE CREAM BAR STICKS — Dr. Robert R. Snell, K-State civil engineering professor, conducted an "intuitive design" contest for the 17 students in his spring semester civil engineering concepts class. Winner was John Stamm, Washington, Kan. Stamm's light pyramid shaped bridge, weighing four ounces and made of 80 sticks, won by supporting 208 lbs.

K-State Automatic Pipeloader-Handler Wins Regional ASAE Design Prize

An entry developed by seniors in agricultural engineering at KSU has taken first place in the regional design competition of the American Society of Agricultural Engineers (ASAE).

The entry is a large prototype, automatic irrigation pipe loader and handler developed last fall by the class in agricultural machinery design taught by Prof. Gustave E. Fairbanks of the K-State department of agricultural engineering.

The unit was fabricated by two seniors: Stanley E. Briggs, Delphos, Kan., and John H. Stout, Sedan, Kan. The entry was one of several from engineering schools in Kansas, Iowa, Missouri, and Nebraska at the ASAE mid-central meeting in St. Joseph, Mo., recently.

With the mobile home-size implement, pipe can be stacked as a unit for temporary storage and reloaded again when needed. The loader-handler can also be used to lay down pipe. The pipe is automatically reconnected as it is set onto the field.

"With our machine, there is a tractor driver but the rest of the operation is automatic. The implement is conceived to operate smoothly at a maximum speed of three miles per hour. It only takes 10-15 minutes to pick up a full load.

"Using available methods for performing the same work, it takes three men—one to drive and two others to disconnect, load, and stack the pipe—an hour to do roughly the same task. So this device represents, potentially, a considerable savings in

money, manpower, and time," said Briggs, who headed the fabrication work.

Clarence
Nelson



C. Nelson Retires After 27 Years

An industrial engineering instructor, known to thousands of K-State engineering alumni and friends, retired June 1 at age 70 following 27 years on the faculty.

Clarence Nelson, who received his education at KSU, was honored at a departmental retirement dinner May 11. He taught shops and was shop supervisor the past few years.

A native of Manhattan, Kan., Nelson was actively engaged in building and contracting work before joining the K-S faculty in 1943. He and his wife, the former Lena Reck of Nebraska, have no definite plans for their retirement years. "I plan to work at home and continue my hobby work with machines," Nelson said.

NEWSWORTHY NOTES

Steven L. Bartsch, Jewell, Kan., junior electrical engineering, is 1972-73 president of the K-State student chapter of the Institute of Electrical and Electronics Engineers. . . Steel Ring president for 1972-1973 is **Robert A. Matousek**, Cuba, Kan., junior in agricultural engineering who won this spring the American Society of Agricultural Engineering (ASAE) mid-central section technical writing award. . . **Carl Anderson**, instructor in agricultural engineering, received the Tri-Valley Chapter (Kansas Engineering Society) Outstanding Young Engineer of the Year Award. . . **Dr. Jerome J. Zovne**, assistant professor of civil engineering received the KES Outstanding Associate Member of the Year Award as well as the similar award of the Tri-Valley Chapter. . . **Dana M. Smerchek**, Topeka, Kan., is president of Sigma Tau for next year. . . **Dr. Edwin C. Lindly**, associate professor of applied mechanics, is Sigma Tau's new faculty adviser succeeding **Dr. Teddy O. Hodges**, professor of agricultural engineering. . . **Jimmy L. Funke**, Washington, Kan., doctoral student of **Dr. Donald E. Lenhert**, has received the Society of Sigma Xi award at K-State for the outstanding master's thesis for 1971-1972.

The KSU Industrial Engineering Advisory Council met in the K-State Union April 25 with **Dr. Stephan A. Konz**, professor and acting department head, presiding. . . design of a large prototype, automatic irrigation pipe loader and handler developed by seniors in agricultural engineering took first place in the mid-central design competition of ASAE. . . **Randy K. White**, St. George, Kan., is the new president of Engineering Student Council; Randy is a junior in mechanical engineering.

Drs. Paul L. Miller Jr., and **Clyde H. Sprague** of mechanical engineering taught a spring intercession course in "Bait and Fly Casting" offered through the KSU department of physical education and Division of Continuing Education. . . **Lowell D. McAfee**, Garnett, Kan., June mechanical engineering graduate, won second place and \$75 in the American Society of Mechanical Engineers student paper competition at Tulsa April 11. . . Western Electric scholars this past year at KSU in electrical engineering were **Timothy Lee Boaz**, Belleville, Kan.; and **James N. Hassler**, Chapman, Kan.

Francis J. Griebel, Collyer, Kan., freshman in agricultural engineering, received this year's \$450 Western Kansas Manufacturers Assn. scholarship. . . two electrical engineering majors, **Boyd H. Culp** and **Jeffrey Lee Funk**, both of Topeka, Kan., had \$250 National Electrical Contractors Assn. scholarships this past year.



ELECTRICAL ENGINEERS had the top individual display, "First Kansas Made Transistors," during the 48th annual KSU Engineering Open House March 17 - 18. These MOS transistors were developed last fall in the KSU Solid State Engineering Laboratory. Demonstrating them is **Henry J. (Hank) Mantz**, senior in EE from Claflin, Kan.

K-State EE Seniors Work on Frontier Of Microelectronic Technology: Lucas

The KSU department of electrical engineering has announced a first for the state of Kansas in the field of microelectronics with the successful fabrication of 2,000 transistors.

The transistors, known as MOS transistors, were first made during October, 1971, in the Integrated Circuit Laboratory at KSU by **Bill Dawes**, Leavenworth, Kan., graduate student in electrical engineering under the supervision of **Dr. Michael S. P. Lucas**, professor in the department.

The Integrated Circuit Laboratory was initiated three years ago when **Dr. Lucas** joined the electrical engineering staff at KSU. The laboratory has been supported mainly through contributions of equipment and technical assistance from **Western Electric, Motorola, and Texas Instruments**.

Lucas explained that approximately 3,000 transistors are fabricated simultaneously on a silicon wafer about the size of a 50 cent piece.

"Obtaining such a large number of transistors from such a small wafer of silicon is due to the fact that each transistor measures only twenty-thousandths of an inch square—so small that it could easily pass through the eye of a needle," **Lucas** added.

According to **Dr. Lucas**, "the successful production is an important step toward KSU's goal of fabricating complex integrated circuits and also assures

Wichita's Dale A. Zellers, junior in chemical engineering, won the 1971-1972 scholastic achievement award of the K-State American Institute of Chemical Engineers student chapter. . . **Dr. Jason C. Annis**, assistant professor of mechanical engineering, serves on the national eight-member Major Appliance Consumer Action Panel (MACAP).

engineering students at KSU of having the opportunity to work in the frontier of microelectronic technology."

Dr. Tillman Back to K-S From Price Commission

Dr. Frank A. Tillman, professor and head of industrial engineering, was director of program control for the Price Commission in Washington, D. C., March 1 to May 31.

Tillman, specialist in operations research, statistics, and systems engineering, was on leave from the KSU faculty to work under Price Commission Chairman **C. Jackson Grayson Jr.**

Dr. Stephan A. Konz, professor of industrial engineering, served as acting department head during **Tillman's** absence.

As director of program control, **Tillman** provided technical resource capabilities needed to manage, evaluate, and improve the action processes involved in price stabilization programs.

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