

Dr. Erickson Cites New Developments In Food Research

Food is important to all of us. Recently meat prices in the U.S. have increased because of a strong demand relative to the available supply.

So points out Dr. Larry Erickson, KSU professor of chemical engineering. He is currently in the third year of a five-year career development award from the National Institutes of Health.

"However, in many less industrialized countries, foods rich in protein, such as meat, are in such short supply that 50-60 per cent of the population is inadequately nourished. Most estimates indicate that a third of the population of the world is not adequately nourished," he said.

Efforts to improve the quality and quantity of food available are widespread. Food-related research, says Dr. Erickson, is being conducted in many laboratories at KSU.

Engineering research on the production of single-cell protein is being conducted in the department of chemical engineering.

Growth of single-cell micro-organisms such as bacteria and yeast for food purposes is not new since yeast has been used in bread making for over 50 years. However, the use of substances such as petroleum, natural gas or cattle manure as raw materials for fermentations is relatively new.

The idea of processing cattle manure at large feedlots to obtain a protein concentrate for feedlot use is relatively new because feedlots with large cattle populations are a recent development.

Research in the KSU department of chemical engineering has been carried on in cooperation with Dr. Alex Prokop, Institute of Microbiology, Prague, Czechoslovakia. The experimental work has been carried out in Prague while model development, computer analysis of the experimental data and design studies have been done at KSU.

Significant advances in understanding of fermentations using petroleum as the substitute have resulted from this

(Continued on Page 3)



THREE JAPANESE EXPERTS in pollution control conferred June 20-21 with K-State engineers working on similar problems. The Japanese visit is part of a formal cooperative program between KSU and Kyoto University to apply systems analysis engineering techniques to solve environmental problems. Pictured (l. to r.) are Dr. L. T. Fan, head of chemical engineering; Dr. T. Takamatsu, professor of chemical engineering at Kyoto U.; Dr. Larry Erickson, KSU associate professor of chemical engineering; Dr. M. Naito, associate professor of sanitary engineering at Kyoto; Dr. I. Hashimoto, associate professor of chemical engineering at Kyoto; and Dr. C. L. Hwang, associate professor of industrial engineering at KSU. The exchange began informally eight years ago when Fan and Takamatsu discovered mutual research interests.

R. Faw, R. Snell Tapped for Department Head Positions

Two well qualified, experienced faculty members have been selected for departmental headships in the KSU College of Engineering.

Dr. Richard E. Faw, professor of nuclear engineering and a K-State faculty member since 1962, is the new head of that department. He assumed duties Aug. 1.

Dr. Faw succeeds Dr. Curtis G. Chezem who joined Middle South Services, Inc., New Orleans, La., July 17 as manager of nuclear activities.

The new head of civil engineering is Dr. Robert R. Snell, native of St. John, Kan., who is a 1954 graduate of KSU. On Sept. 1, Dr. Snell succeeded Dr. Jack B. Blackburn who resigned after nine years to become professor of engineering at Arizona State University, Tempe.

Since 1968, Faw has been director of the KSU Nuclear Engineering Shield Facility. He has strong interests and concerns in nuclear power production and radiation protection. He has done extensive research and taught in those two areas at K-State.

Dr. Faw, registered professional engineer in Kansas and Ohio, is a member of the American Nuclear Society, American



Dr. Faw



Dr. Snell

Chemical Society and the American Society for Engineering Education. His B.S. is from Cincinnati and Ph.D. from Minnesota, both in chemical engineering.

In 1957, Dr. Snell joined the KSU civil engineering faculty while working on an M.S. degree which he received in 1960. He was granted the Ph.D. by Purdue in 1963.

A registered professional engineer in Kansas since 1959, Snell was a Ford Foundation resident-in-engineering-practice in 1967-1968 at Rust Engineering Company, Pittsburgh, Pa. He has been active in the Kansas Engineering Society and is president of the Kansas section, American Society of Civil Engineers.



NEW MINI-COMPUTER IN ELECTRICAL ENGINEERING — Duane E. Walker (r.), Green, Kan., Ph.D. student and instructor in electrical engineering, demonstrates a new \$9,800 Nova 1200 mini-computer in use at KSU. Walker discusses the computer's uses with Dr. Wellington W. Koepsel, professor and head of electrical engineering. The computer's primary function is as an instructional aid in teaching computer organization and solving special engineering problems with close interaction between the operator and the computer.

'72—Good Placement Year For Engineering Grads

Placement of 1972 engineering graduates of K-State "is as good or better than for previous years," says Dr. Kenneth K. Gowdy, assistant dean of engineering.

The vast majority of last year's graduates were successful in securing engineering positions upon graduation. The major portion of those not seeking full-time employment either entered the military or began graduate studies.

"Our graduates may not be getting as many job offers as three or four years ago, but they are getting more than those graduating from other Colleges at the University. I would say that we've had a good placement year," Gowdy said.

A report compiled by the College for the Engineering Manpower Commission in July indicated that KSU had awarded 242 undergraduate engineering degrees, 72 M.S.'s, and 23 Ph.D.'s in 1972. Of the 242 B.S.'s, 137 accepted regular employment, 38 began graduate studies, 29 entered the military, six had other specific plans, eight had no offers or other plans, and there was no information available for 24.

According to Dr. Bruce Laughlin, director of Career Planning and Placement at K-State, there has been no cutback in firms visiting the KSU campus seeking to hire engineering graduates. He feels there is still a very definite need for new engineering graduates by employers.

A list of reporting KSU engineering graduates (May and August 1972) and what they are doing now follows:

Reginald M. Anderson, ChE, Factory Mutual, Maryland Heights, Mo.; John E. Atherton, EE, Motorola, Phoenix,

Ariz.; John A. Bailey, NE, Babcock & Wilcox, Lynchburg, Va.; Gilbert Bayer, ChE, studying at KSU on dual degree in business administration; Ralph E. Bazil, EE, Johns Hopkins University Applied Physics Laboratory; and Michael J. Beier, ChE, Marley Co., Shawnee Mission, Kan.

Stephen L. Berland, CE, Schwab & Eaton, Manhattan, Kan.; Leonard R. Bogle, EE, with Peace Corps; Kenneth E. Buck, CE, Army Corps of Engineers, Kansas City, Mo.; Patrick N. Caldwell, EE, Motorola Government Electronics, Scottsdale, Ariz.; Howard D. Conus, NE, Air Force It.; Robert A. Cook, CE, Kansas Highway Commission; and David A. Downtain, NE, seeking dual degree at KSU in business administration.

Thomas M. Drouhard, EE, Texas Instruments, Dallas; Dale I. Ellis, ME, seeking MBA at Northwestern University; Larry J. Engelken, EE, Black & Veatch, Kansas City, Mo.; Forrest E. Erickson, CE, 2nd It., Ft. Eustice, Va., Army transportation corps; Warren C. Feere, IE, Superior Boiler Works, Hutchinson, Kan.; and Richard L. Flanary, ChE, Goodyear Tire & Rubber, Topeka, Kan.

Richard A. Fornelli, CE, seeking M.S. in environmental engineering at KSU; Gary L. Fox, CE, seeking M.S. in transportation engineering at KSU; Calvin E. Gooden, EE, McDonnell-Douglas, St. Louis; Alan P. Graves, ME, 2nd It., Aberdeen Proving Grounds Ordnance; Darrel D. Grollmes, ME, Wenger Mixer Mfg., Sabetha, Kan. and Mark L. Hahn, CE, Public Service Co., Denver.

James V. Hall, CE, seeking dual degree in business administration at KSU; Dennis E. Hanson, ME, Mobil Refinery, Augusta, Kan.; C. Tim Harbaugh, ME, Hyplains Dressed Beef, Inc., Dodge City, Kan.; William M. Hayes, EE, Texas Instruments, Dallas; Dennis L. Heuzel, CE, Bruce Williams Consulting Engineers, Joplin, Mo.

Robert R. Hogue, EE, Texas Instruments, Dallas; Warren H. Jepson Jr., ME, Air Force pilot school; Armin E. Johnson, AgE, Army Corps of Engineers, Kansas City, Mo.; Herbert M. Jones, ME, General Electric, Schenectady, N.Y.; Victor A. Joyce, ME, Dow Chemical, Tulsa; Mark E. Keast, CE, Naval Officer Candidate School, Newport, R.I.; and Danny C. Kingry, ME, Beech Aircraft, Wichita.

Thomas J. Krehbiel, EE, Motorola, Phoenix; James R. Lee, IE, Texas Instruments, Dallas; John W. Krupp, AgE, seeking M.S. at KSU; Donald L. Macklin, ChE, Phillips Petroleum, Borger, Tex.; Richard J. Mages, EE, Ten-

(Continued on Page 3)

IMPACT Begins Research Column

With this issue of IMPACT Newsletter new section is inaugurated to present brief reports of continuing engineering research coordinated through the KSU Engineering Experiment Station. The department of civil engineering is the first to be featured.

Civil Engineering

Larry A. Schmid, Associate Professor, "Pilot Plant Demonstration of a Lime-Biological Treatment Phosphorus Removal Method."

A near full-scale treatment plant was built. It was demonstrated conclusively that it was possible to remove phosphorus from sewage effluent with the lime-biological treatment method. The project was supported by the Environmental Protection Agency.

Stuart A. Swartz, Associate Professor, "Effect of Interior Stiffeners on the Buckling Strength of Folded Plates."

This is a study of the buckling strength of folded plates. It was a laboratory study intended to show that interior stiffeners increased the buckling strength of such plates. This research was supported by the National Science Foundation as a Research Initiation Grant.

Swartz, "Buckling of Rectangular Concrete Panels."

A study of the buckling of rectangular concrete panels, this project is an attempt to establish relationships between the buckling strength and such as: the thickness of the panel; the amount and placement of reinforcement; and, the type of edge support for the panels. It is anticipated that the data obtained from this study will provide the basis for design criteria for thin concrete panels subjected to buckling loads. This project is supported by the National Science Foundation through May 31, 1973.

Hank Mantz, EE '72, Is Tops In IEEE Paper Competition

A 1972 electrical engineering graduate of KSU won first prize, including a \$100 check, in the 21st annual John A. Costelow Student Paper Competition of the Kansas City section, Institute of Electrical and Electronics Engineers.

Henry J. Mantz, 22, Claflin, Kan., wrote on "Single or Multiple Feedback Paths Ease the Synthesis of Operational Amplifier Active Filters." He transferred to K-State from Hutchinson (Kan.) Community Junior College.

On June 12, Mantz joined Texas Instruments equipment group in Dallas.

Alumni Contributions Total \$52,238

KSU ENGINEERING ALUMNI NEWS SUMMER 1972

Up from \$38,155
Total as of May 17

Between May 18 and Sept. 30, total contributions to the fund appeal issued July 15, 1971, by Dr. Ralph G. Nevins, KSU dean of engineering, increased from \$38,155 to \$52,238. In addition, a total of \$13,215 in pledges has been received from individuals who have joined the KSU Engineering Dean's Club.

Dean Nevins points out that a total of \$9,663 has been received through the Dean's Club, \$9,888 from the \$/Year² Club, and \$32,687 in gifts designated for the addition to Ward Hall, the new \$900,000 facility of the KSU department of nuclear engineering dedicated Nov. 3-4, 1972.

Included in the recent contributions to the Ward Hall Mortgage Fund was a gift of \$13,062 by LeRoy C. Paslay, a 1930 electrical engineering graduate of KSU.

The Dean's Club (members who pledge \$500 or more to be paid within five years) now has 65 members. Four alumni have joined since our last report to you. Dean Nevins continues to be pleased with the growing total of 635 engineering alumni who have joined the \$/Year² Club, agreeing each year to contribute \$1 for each year that has passed since their graduation from the College.

There are a total of 172 individuals and firms which have contributed gifts specifically for the Ward Hall addition.

Twelve more companies or foundations — Atlantic Richfield Foundation, Black & Veatch Consulting Engineers, Caterpillar Tractor, Cummins Engine, Honeywell Fund, Kansas Gas & Electric, Kansas Power & Light, Koppers Foundation, NCR Foundation, Panhandle Eastern, United Aircraft Corporation and Western Electric — matched the contributions of KSU engineering grads working for them.

Other firms which have matched contributions: Abbott Laboratories, Allis Chalmers, Armco, Cities Service, Dow Corning, General Cable Fund, General Electric, B. F. Goodrich, Gulf Oil Foundation, Hercules, Hesston Mfg., Humble Oil Foundation, IBM, Oklahoma Gas & Electric, Phillips Petroleum, Standard Oil (Indiana) Foundation and Westinghouse.

You as a KSU engineering alumni are welcome to join either the Dean's Club or the \$/Year² Club. If you wish, you may also make a designated contribution to the Ward Hall Mortgage Fund. Your participation is solicited and very much needed.

CLASS NOTES . . .

Bruce H. Cummings, ME '15, receiving mail care of Violet Pearson, 5920 Pierce, Omaha, NB 68106.

Charles F. Zeigler, CE '18, now residing at 4712 W. 6th, Topeka, KS 66606.

Russell D. Hilliard, EE '21 (2011 Grandview, Apt. 304, Wamego, KS 66547), formerly of Kansas City, Mo.

Glenn Ernest Gates, CE '22, now residing at 1349 E. Elm, Springfield, MO 65804.

Charles M. Zimmerman, ME '22 (10344 W. 58, Apt. 47, Arvada, CO 80002); formerly of Shawnee Mission, Kan.

Francis Neil Brooks, CE '24 (404 W. Osage, Sedan, KS 67361); formerly of Peru, Kan.

Harley K. Burns, ME '24 (2505 E. Hartford, Apt. 116, Ponca City, OK 74601); retired in 1969 from Gas Service Co. after 45 years in natural gas business; associated with son-in-law and daughter in Kay Automotive Parts, Ponca City; two grandchildren.

Philip M. Noble, CE '26 and ApMech '30, now residing at 3708 Fuchsia La., Modesto, CA 95350.

Howard J. Winters, EE '28 (Box 831, Independence, KS 67301); retired three years ago after 35 years with Kansas Gas & Electric as engineering consultant; recently moved from Ft. Scott, Kan., to Independence.

John F. Bozick, EE '30, now residing at 303 Brush Creek d., Kansas City, MO 64112.

Frederick W. Toomey, EE '30 (Apt. E, E. Paradise Gardens, 3120 N. 67th Pl., Scottsdale, AZ 85251); retired Air Force colonel (1962); past 10 years with North American Rockwell in Los Angeles until May; plans to visit KSU next spring or summer.

Harry Clinton Swain, EE '32, now residing at 1066 S. Coffman, Longmont, CO 80501.

Kenneth U. Benjamin, EE '33 (7448 S. Lamar, Littleton, CO 80123); formerly of Wichita.

Lisle L. Smelser, CE '34 (Box 25246, Portland, OR 97225); resides at 6743 S. W. Bancroft Way, Portland.

John Victor Venard, CE '35 (Rt. 5, Washington Hts., Manhattan, KS 66502); formerly of Seneca, Kan.; retired after 42 years with Kansas Highway Commission; wife, former Catherine Walker, fs '28-'31; daughter, Jane Venard Smith, BA '61.

Hal F. Eier, CE '36 (Star Rt. 2, Box 6, Pagosa Springs, CO 81147); retired April 1 from Leo A. Daly Co., Omaha, Neb.; was project engineer for major construction jobs past 10 years; wife, Adah, KSU '40; building retirement home in Pagosa Springs.

L. C. Skinner, ChE '36 (318 Crestone, Apt. 8, Salida, CO 81201); retired; enjoying hunting, fishing, and lots of golf.

N. G. Branson, EE '38, now residing at 837 Lake House Dr., N. Palm Beach, FL 33408.

Harold A. Gardner, ME '39 (Box 912, Conrad, MT 59425); senior engineer, Western Electric; since March 21, engineer-in-charge, Weapons System Contractor Construction Surveillance Group for Perimeter Acquisition Radar Building, SAFEGUARD SITE II, Antiballistic Missile System, Conrad.

Carl E. Wristen, EE '39, died March 28 at age 55; had been manager, systems dispatching, Columbus & Southern Ohio Electric, leaves wife, two sons and a daughter.

Victor R. Piatt, ChE '40 (8321 Syracuse Cr., Vienna, VA 22180); since December 1969 has been responsible for environmental pollution control at Naval Research Laboratory, Washington, D.C.; he says, "Thank God for excellent ChE training."

Norman Travis Cook, CE '41, now residing at 2940 W. 31st Ct., Apt. 103, Topeka, KS 66606.

Harley E. Lucas, CE '41 (4120 Twilight Dr., Topeka, KS 12); passed away recently.

A. (Bob) Gilles, CE '42 (6171 Leesburg Pike, Apt. 321, Falls Church, VA 22044); he and wife attended 30-year reunion of '42 class with two other CE grads; president, Gilles & Cotting, Inc., general contractors, DC area; three children over 21.

Marion A. Miller, AgE '42 (1275 N. High School, Indianapolis, IN 46224); promoted from superintendent to manager, plant engineering, Guide Lamp Division, General Motors.

Jack W. Warner, EE '42 (5126 Duban Ave., Orlando, FL 32809); retired from Army Feb. 29 after 30 years service; now manager, Florida General Trucking, Orlando.

Vincent J. Hoover, ChE '44, now residing at 1419 Ohio, Apt. 12, Lawrence, KS 66044.

Earl I. Osborn Jr., ME '47 (Box 867, Miami, AZ 85539); chief mechanical engineer, Cities Service Pinto Valley Operations; served 25 years with Cities Service in E. Chicago, Ind.

Leland Oscar Townley, EE '47 (377 Franklin, Redlands, CA 92373); formerly of Topeka.

Willis Bell, ME '49 (1037 E. Kirwin, Salina, KS 67401); active in the Kansas Engineering Society.

James Melvin Brown, ME '49 (5510 Village Dr., Topeka, KS 66604); formerly of Wichita.

Robert G. Brunton, ME '49, now residing at 2251 Westport, Wichita, KS 67203.

Andrew J. Harkness, ME '49 (5 W. O'Brien Rd., Lee's Summit, MO 64063); formerly of Wichita.

Charles L. Lentz, ME '49 (Box 1088, Magnolia, AK 71753); formerly of Baton Rouge, La.; owner, operator with wife, Rosemary, White's Auto Store, Magnolia; opened June 3.

W. S. McDaniel, EE '49 (4624 W. 21st, Topeka, KS 66603); passed away recently; was a professional engineer and life member, Kansas Engineering Society from 1965; had retired from Kansas Highway Commission.

Dr. Wilbur B. Neel, ME '49, now residing at 3115A Nutmeg, Hutchinson, KS 67501.

Johnny Lee Potter, EE '49 (Box 545, Sand Springs, OK 74063); formerly of Bartlesville, Okla.

Robert L. Tinsley, CE '49 (4571 Mt. Creek Dr., Roswell, GA 30075); formerly of Kansas City, Mo.

Ted L. Farmer, CE '50 (1635 Pennsylvania, El Dorado, KS 67042); professional engineer in Kansas; secretary-treasurer, Kansas Engineering Society for 1972-73.

Charles A. Lagergren, CE '50, now residing at 6326 S. W. 21 Terr., Topeka, KS 66614.

R. L. Pivonka, EE '50 (1044 Oak Ct., Flossmoor, IL 60422); manager of pipeline systems, Natural Gas Pipeline Company of America, Chicago.

William P. Shea, EE '50 (USA ENGCOMEUR, ENGR., DIRECT., New York, APO 09757); six children; son, Mark, a K-State freshman.

William E. Kennedy, ME '51 (202 Monte Carlo Dr., Rt. 2, Kirksville, MO 63501); promoted from staff engineer, Amoco Pipeline Co., St. Charles, Mo., to area operating supervisor, LaPlata, Mo.; son, William Jr., senior in nuclear engineering at KSU.

Herbert Metz Timm, ChE '51 (334 Harrison, Topeka, KS 66603); semi-retired; single; asphalt chemist for four years; native of Abilene, Kan.

Charles B. West, CE '51 (2229 Knollwood Dr., Topeka, KS 66611); professional engineer in Kansas; 1972-73 vice president, Kansas Engineering Society.

Dr. Craig Neil Clark, EE '52, receiving mail at 1530 Harrison, Topeka, KS 66604.

Gordon D. Johnson, ArchE '52 (10912 W. 100th Terr., Overland Park, KS 66214); with Rocky Mountain Prestress, Inc.; new member, Kansas Engineering Society.

Clayton R. Reed, ME '52 (c-o AMOSEAS, P. O. Box 693, Tripoli, Libyan Arab Republic); married to former Peggy Wilson, KSU '51; three children; with Texaco 17 years as petroleum engineer; manager of engineering for AMOSEAS (Texaco and Chevron joint overseas company) in Tripoli.

Ken E. Sessler, ME '52 (5820 Pembroke Dr., New Orleans, LA 70114); just returned to New Orleans after three years in Seattle; 20-year service award from Boeing; wife, Verna; son, Dean, 15; three daughters — Kenna, 22, recently married; Vicki, 19; and Kathy, 20.

Bruce V. Collins, CE '53 (905 W. 8th, Junction City, KS 66441); recently passed Professional Engineering Examination in Kansas.

Richard Stanton Lee, ME '55, now residing at 8316 Harris, Kansas City, MO 64138.

Larry Lavon Watkins, CE '55, now residing at 1917 N. 27th, Topeka, KS 66605.

(Continued on Next Page)

(Continued on Page 3)

ALUMNI NEWS

Dr. Maurice L. Goff, IE '56, now residing at 110 S. Evergreen, Wichita, KS 67209.

Mike W. Cornett, AgE '57 (4001 N. 31st, Waco, TX 76708); from general manager of operations to president, Genico, Inc., Waco; joined Genico after nine years with Continental Oil Co., technical services division, Houston, Ft. Worth and Ponca City; married to former Shirley A. Forbes, Weirton, W. Va.; children—Cindy, 12; Lee, 10; Jon, 8; and Brian, 3.

Roscoe Burnette Earp, ChE '58, now residing at 1333 Collins, Topeka, KS 66604.

Donald G. Lowell, IE '58 (Box 2108, Santa Fe, NM 87501); president, Eberline International Corp., Santa Fe.

Melvin Lee Mitchell, CE '58 (401 Dixon Dr., Hoffman Estates, IL 60172); formerly of Kansas City, Mo.

William C. Carter, IE '59 (3612 Dickens, Manhattan, KS 66502); formerly of Westmoreland, Kan.

M. L. Critton, EE '59 (4944 Elkridge Dr., Palos Verdes Peninsula, CA 80274); with engineering technical staff, Hughes Aircraft, El Segundo, Calif.; married, two daughters.

Francis R. Walterbach, ChE '59 (1823 Crook, Falls City, NB 68355); formerly of Leona, Kan.

Dr. Do-Sup Chung, ChE '60 (1518 Pierre, Manhattan, KS 66502); KSU associate professor of agricultural engineering; wife, Okkyung; daughters—Clara, 8, and Josephine, 3.

Lawrence M. Garvin, IE '60 (5 Fox Den Dr., Bethel, CT 06801); recently promoted to loss prevention engineer, Olin Corp., Stamford, Conn; previous assignment, manager of decontamination, E. Alton, Ill.

Neil W. Schild, AgE '60 (2700 Fulton Ave., Sacramento, CA 95821); recently promoted to regional supervisor, water and land reclamation, Mid-Pacific Region, Bureau of Reclamation; children—Kevin, 11, Karla, 10, and Kyle, 3; wife, Arlis, former AgE departmental secretary; Schild, formerly with Lower Missouri Region of Bureau in Denver as chief of operations branch.

Robert R. DeRusseau, NE '61 (Westinghouse, Hanford Div., Box 1970, Richland, WA 99352); promoted to supervisor, auxiliary systems engineering, Fast Flux Test Facility, USA's most advanced fast breeder reactor concept; wife, Delaine, and two daughters—Krista, 7, and Sabrina, 4.

Jerry W. Fankhouser, ChE '61, now residing at Rt. 1, Box 49B, Augusta, KS 67010.

D. James Geist, CE '61 (2075 N. 6 Ave., Tucson, AZ 85705); formerly of Kansas City, Mo.

Dr. Jay S. Huebner, EE '61 (10258 Fontana Ct., N. Jacksonville, FL 32211); since Aug. 10, assistant professor of natural sciences, University of North Florida, Jacksonville; teaching courses in physics, biophysics, bioengineering and electronics.

Jerome Dean Kellum, ME '61, now residing at 117 S. Olympia, Ponca City, OK 74601.

Donald J. Lank, ChE '61 (411 N. Overlook, Coffeyville, KS 67661); formerly of Phillipsburg, Kan.; special projects engineer, CRA Inc.; listed in 1972 edition, Outstanding Young Men of America; wife, Gayle; three children, Alan, Deana and Camela; licensed professional engineer in Kansas.

Otis Fred Miller, ChE '61, with Cities Service, Smelter Hill, Copperhill, TN 37317.

David A. North, EE '61 (14903 Kimberley La., Houston, TX 77024); branch manager, equipment engineering and maintenance, Texas Instruments, Inc., Houston; completed MBA in 1967 at Southern Methodist University; married to former Nancy K. Stubbs, Wichita; three sons and a daughter.

Larry Eugene Reid, EE '61, now residing at 4812 Harvard, Kansas City, MO 64133.

Gary L. St. John, CE '61 (931 Checker Rd., Buffalo Grove, IL 60090); with Federal Aviation Administration, Des Plaines, Ill.

LCDR Aryl B. Clason, NE '62 (887 Nugget Hill Rd., Grotton, CT 06335); director, engineering training department, U. S. Naval Submarine School; recently completed tour as weapons officer, Polaris submarine USS Henry Clay in Guam; in Naval Nuclear Power Programs since graduation; he and wife, Karen, have two children—Jan and John.

Dennis M. Clennan, CE '62 (2921 Moundview Ct., Topeka, KS 66614); new professional engineer in Kansas.

David F. Gingerich, CE '62 (5011 W. 26th, Topeka, KS 66614); with Peace Corps in South America; receives mail in care of American Embassy, Quito, Ecuador, S.A.

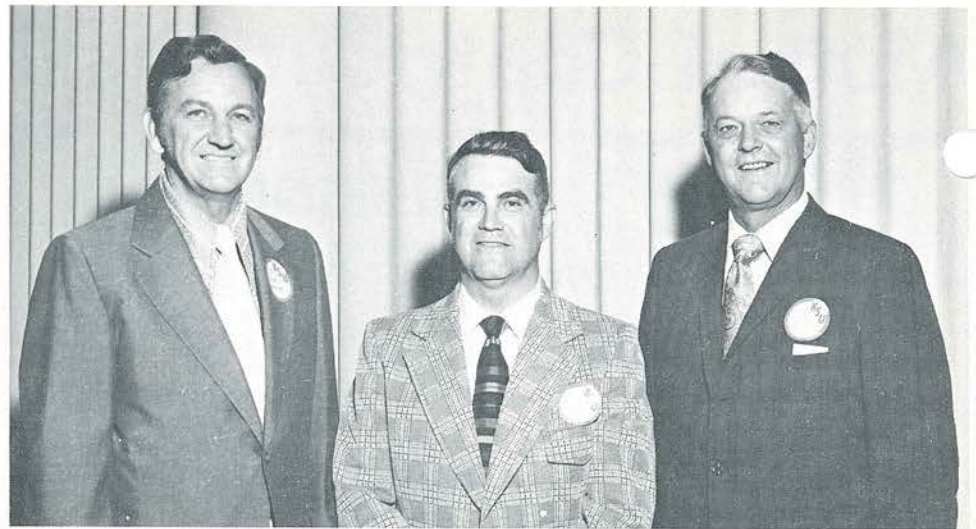
Kenneth Gary Ingram, EE '62 (9810 W. 100th Terr., Overland Park, KS 66212); formerly of Topeka, Kan.

Jerry L. May, CE '62 (951 S. 2nd, Salina, KS 67401); has passed professional engineering examination in Kansas.

Atty. Clay A. Morris, ME '62 (13411 Linden, Sugarland, TX 77478); patent attorney, Shell Development Corp., Houston; wife, former Peggy Shutner; two children.

Gary L. Ewy, ChE '63 (9407 E. 38 St., Tulsa, OK 74145); project engineer, Global Engineering Co., Tulsa; married, two children.

Jay E. Faulconer, CE '63 and '69 (9131 S. W. 188 Terr., Perrine, Miami, FL 33157); formerly of Kansas City, Mo.;



REUNION OF '42 CIVIL ENGINEERS — R. A. (Bob) Gilles (c.), contractor in the Washington, D.C., area, coordinated a reunion of the 1942 civil engineering graduates in June. Posing with him are two other members of that class: A. J. Martin (l.), Fresno, Calif., and Harold Leckron (r.), contractor in Abilene, Kan.

chief traffic engineer, Miami office of Ken R. White Co., Denver; TOPICS studies in St. Petersburg, Fla., and Kingsport, Tenn.

John Foster Foresman, IE '63 (2121 S. Sandstone, Jackson, MI 49201); manager of industrial engineers, Goodyear Tire & Rubber, Jackson; formerly personnel manager for Goodyear at Stow, Ohio; two sons, John, 5, and Jay, 3.

William M. Lackey, CE '63 (3713 W. 30th St., Terr., Topeka, KS 66614); recently promoted from resident engineer at McPherson, Kan., to construction field engineer, construction department, Kansas Highway Commission; married, two daughters—Raelynn and Kelli.

Ronald Emory Adams, AgE '64, now residing at 507 Broadway, Abilene, KS 67410.

Thomas D. Meyers Jr., EE '64 (2120 W. 32nd St., Topeka, KS 66611); supervising engineer, Southwestern Bell Telephone, Topeka; formerly was instructor in carrier systems at Bell System Center for Technical Education, Lisle, Ill.

John R. Nelson, ME '64 (3205 S. Parker, Apt. 310, Denver, CO 80232); flight engineer, Continental Airlines; single; instructor pilot, California Air National Guard.

Charles Ray Sheppard, ME '64, now residing at 3312 Dartmouth, Hutchinson, KS 67501.

Dr. William T. Urban, NE '64, '66 and '71, now residing at 9 Van Olinda, Netherland Village, Schenectady, NY 12308.

Ivan R. Wilkinson, AgE '64 (106 Dundee Dr., Syracuse, NY 13207); transferred from Salina, Kan., last January;

now hydraulic engineer, watershed planning and river basin staff, Soil Conservation Service, USDA.

Pat D. Corman, EE '65 (531 N. E. Edgewood Dr., Topeka, KS 66617); has passed professional engineering examination in Kansas.

Ben D. Neaderhiser, CE '65 (3434 Shawnee Hts. Rd., Topeka, KS 66605); has passed professional engineering examination in Kansas.

G. Morgan Powell, AgE '65 (2812 Freebridge, Redding, CA 96001); consulting water resources (irrigation) engineer with CH₂M Hill Engineers; married, one child; M.S. in AgE from University of Missouri; finishing up dissertation for Ph.D. in AgE at Utah State.

Steven B. Tinkler, ME '65, now residing at 3755 N. Nellis Blvd., Las Vegas, NV 89110.

Robert B. Wilcox, ME '65 (5014 Paseo de Palms, Torrance, CA 90505); new employment as west regional engineer, Interstate Brands Corp., Los Angeles.

Lt. Leon E. Allen, EE '66 (Rt. 1, Altamont, KS 67330); now receiving mail at Box 10757, 1600 Support Grove, Rescue, APO San Francisco, CA 96274.

Frank R. Bollig, ME '66 (1501 N. Old Manor, Wichita, KS 67208); design engineer, Litwin Corp., specialists in petroleum and petro-chemical plant design; wife, Cecilia; children—Eric, 4, and Angela, 1.

Van Chang, CE '66 (1228 Belle, Topeka, KS 66604); has passed professional engineering examination in Kansas.

Larry W. Emig, CE '66, now residing at 1738 Medford, Topeka, KS 66604.

Jimmy L. Funke, EE '66 (1127 Laramie, Apt. 3, Manhattan, KS 66502); has received M.S. in EE at KSU; working for Ph.D. under Dr. Don Lenhart of EE.

Michael L. Gamble, CE '66 (Box 324, Liberal, KS 67901); has passed professional engineering examination in Kansas.

James Dudley Gordon, EE '66 (324 E. Walnut, Waterville, KS 66548); formerly of Kansas City, Kan.

Nathan D. Granger, IE '66 and '67 (104 Haven Dr., Radford, VA 24141); supervisor, systems and programming, Hercules Inc., Radford; formerly with Hercules in Kansas City; since school, data processing has been his "cup of tea."

Gary L. Montgomery, ME '66 (9980 S. W. Walnut St., Tigard, OR 97223); project engineer, McCormack Engineering, Lake Oswego, Ore.; moved to Oregon from Charlotte, N. C., this past May; married Oct. 22, 1969, to Anthea Hardy from England; a son, Mark, 19 months.

Wesley N. Moore, CE '66 (313 Skyline Ct., Hays, KS 67601); passed professional engineering examination in Kansas.

Roderick R. Brown, CE '67 (3257 S. Cincinnati, Tulsa, OK 74105); married June 26, 1971, to former Kay Ann Schneider, Billings, Mont.; senior design engineer, general engineering department, Cities Service, Tulsa.

R. E. (Ralph) Carthrae, CE '67 (Box 1267, Ponca City, OK 74601); staff engineer, Continental Pipeline Co., since graduation in August 1967; visited campus May 8 to present \$3,000 Conoco check to College of Engineering.

Donald D. Ficken, ME '67 (98-E Cedar La., Highland Park, NJ 08904); with plant design and construction organization, Western Electric in New York after 4 years in Dallas; married.

Richard W. Jacobson, ME '67 (19957 Fenton, Roseville, MI 48066); in research, development and engineering directorate at Army Tank Automotive Command; finished three years, eight months as Army captain Aug. 27; married to former Gail Rodeen; four children—three girls, a boy.

(Continued on Next Page)

Dr. Senti, Ch.E. '35, Honored by K-State

A distinguished 1935 chemical engineering graduate of KSU, Dr. Fredric Raymond Senti, deputy administrator of marketing and nutrition research for the USDA Agricultural Research Service, received an honorary doctor of science degree from the University at the May 1972 commencement.

Dr. Senti's contributions have led to improved understanding of the properties and uses of constituents of the agricultural commodities of the Midwest. These have earned for him a place of leadership in the science and industry of the Midwest and the Nation.

Dr. Senti is the author of more than 100 publications in many fields. He previously received the KSU Centennial Award in 1963.

In his current position, Dr. Senti is responsible for the work of 3,000 scientists and a budget of about \$40 million.

ALUMNI NEWS

Kenneth D. Lewis, ME '67 (105 Bradford La., Bogalusa, LA 70427); joined Crown Zellerbach March 1 as a project engineer.

Jerry L. May, CE '67 (951 S. 2nd, Salina, KS 67401); new professional engineer in Kansas; with Wilson & Bucher consulting firm, Salina; active in Smoky Valley Chapter, Kansas Engineering Society.

Rodney T. Nash, ME '67 (607 Fleming, Garden City, KS 67846); former KSU instructor in mechanical engineering now working in industry.

Joseph Henry Nolte, EE '67 (400 Park Ave., Apt. 3, Mifflin, PA 15122); formerly of Seneca, Kan.

Ernest B. Randel, EE '67 (Box 40, Celina, TX 75009); owner of Television Repair Service; two children.

Randall J. Schermerhorn, EE '67 (3026 Flagstone, Garland, TX 75042); telecommunications systems design engineer, Collins Radio; married to former Nancy Strode, Dallas, Tex.; a son, seven months.

William L. Selbe, NE '67 (Chateau Knoll Apt. 17-1, Bettendorf, IA 52722); met his wife, Fabiola Gascon in Spain while working for General Electric's Nuclear Energy Division; a son, Mitchel Leigh, born last June 25; recently received AEC license for senior shift supervisor, Quad Cities Nuclear Power Plant.

Steve VanHole, IE '67 (515 Graffway, Lee's Summit, MO 64063); human factors engineer, Western Electric; two daughters—Carol, 4, and Diane, 13 months.

Patrick F. Ervin, NE '68 (Box 431, Zion, IL 60099); systems engineer, Commonwealth Edison Co., Zion Nuclear Generating Station; writing pre-operational tests for radioactive waste handling system in the plant.

John M. Flannery, ChE '68 (173 Bay State Rd., Boston, MA 02215); marketing manager, Orion Research Inc., Cambridge, Mass.; graduated from Harvard Business School in June 1970.

Donald R. Frikken, ME '68 (311 Fairlawn, Webster Groves, MO 63119); mechanical project engineer, Monsanto; associate member, American Society of Mechanical Engineers; married to former Sharon D. Pule, Bonner Springs, Kan.

David J. Holsinger, ME '68, now residing at 453 - 27th St., Manhattan Beach, CA 90266.

Dennis Eugene Moore, CE '68, now residing at 1413 10th Ln., Hutchinson, KS 67501.

William R. Klassen, CE '68 (Rt. 1, Box 52, Lehigh, KS 67073); highway engineer with Bureau of Public Roads; recently married to Margaret Vesecky, Timken, Kan.; will be living in College Station, Tex.

Ken Mathias, ME '68 (840 Cottonwood, Boulder City, NV 89005); B.S., geophysics; M.S., geology; Department of Interior, Bureau of Reclamation, Lower Colorado Regional Office; geologist, geophysicist, and engineer associated with geothermal exploration and production program.

Robert Mathews, EE '68 (428 Maderax Ave., Apt. 10, Sunnyvale, CA 94086); recently left Air Force; now associate engineer, Lockheed Missiles and Space Co., Sunnyvale.

Forrest C. Noah, ChE '68 (821 W. Gore, Lovington, NM 88260); plant engineer, Saunders Plant of Warren Petroleum Corp.; married, two children—Jeff, 3, Alisha, seven months.

Lawrence R. Steele, EE '68 (1575 Yucca, Wichita, KS 67209); formerly of Topeka, Kan.

Robert E. Venard, CE '68 (2639 Luau St., Apt. 7, Honolulu, HI 96813); graduate student, University of Hawaii.

Elmer Clem Zerr, CE '68, now residing at 601 W. 57, Lot 46, Topeka, KS 66609.

Dr. Steven R. Beck, ChE '69 (357 Firwood, Plano, TX 75074); recently completed his Ph.D. in ChE at University of Texas, Austin; now research engineer, Syn Crude Division, Atlantic Richfield, Plano.

Kenneth D. Everett, CE '69 (1009 Dalton Dr., Wichita, KS 67202); new member, Kansas Engineering Society.

John R. Greiner, ME '69 (1704 N. Oakcrest Ave., Decatur, IL 62526); married to former Peggy Kirby, Emporia State '69; a son, Marcus, 19 months; with Caterpillar Tractor, Decatur, as a design engineer; working on M.S. in theoretical and applied mechanics, University of Illinois.

Dexter J. Hunt, ME '69 (11122 Sagewillow, Houston, TX 77034); applications analyst, Professional Services Division, Control Data Corp.; recently transferred to Houston from Sunnyvale, Calif.

Randy McDonald, EE '69 (3214 Avon, Midland, MI 48640); technical service and development engineer for cone encapsulants and sealants, Dow Corning; wife, mer Susan Griffree; two daughters—Danica, 4 and Dacia, 2.

Victor Carl Moser, CE '69, now residing at 4323 Indian Creels Rd., Topeka, KS 66617.

Stuart A. Spaulding, CE '69 (2001 E. Maine, Enid, OK 73701); formerly of Geuda Springs, Kan.

Charles A. Burre, NE '70 (49-A Vly Rd., Albany, NY 12205); nuclear engineer, General Electric Knolls Atomic Power Laboratory, Niscayuna, N. Y., since September



MARCH 16 ADVISORY COUNCIL MEETING AT K-STATE — Members of the KSU Engineering Advisory Council together with department heads or departmental representatives took part in the semi-annual meeting of the Council. Seated (l. to r.) Roy Bainer, M. A. Durland, Chairman Daric Miller, Dean Ralph G. Nevins, Fred Eyestone and R. G. Taecker. Middle row: R. W. Decker, Martin K. Eby Jr., Curtis G. Chezem, Howard C. Eberline, Richard Scherer, B. G. Kyle, T. F. Skinner, Donald Christy, Dwight A. Nesmith, W. W. Koepsel and Kenneth K. Gowdy. Top row: Cecil H. Best, Jack B. Blackburn, J. Garth Thompson, Philip G. Kirmser, Claude Wilson, Jacob Smaltz, William H. Johnson, LeRoy Culbertson and Ed McNally.

1969; wife, former Susan Hyde, a former teacher; married in April 1971; a son, Thomas Charles, born May 19.

Teh-tsun (Ted) Chan, CE '70 (72-C Bracewood La., Stamford, CT 06905); married Lucy Liu March 17; recently relocated in Stamford as structural engineer with Frederic R. Harris, Inc., consulting engineers.

Charles R. Cole, ME '70 (8706 W. 89th St., Shawnee Mission, KS 66212); with AT&T; was from Army in May; wife, former Nancy Hall, KSU '71; two children—Kathleen, 20 months, Christopher, nine months.

Duane A. Downtain, NE '70 (530 Rockingham La., Apt. 216, Richardson, TX 75080); married Linda J. Henderson May 20; engineer with Texas Instruments, Dallas.

Ralph L. Flournoy Jr., CE '70, now residing at 1100 County Line Rd., Bldg., 7, Apt. 6, Kansas City, KS 66103.

Ensign Roy E. Hobbs, EE '70 (1048B Guam Dr., Pt. Hueneme, CA 93043); embarkation-material liaison officer; assigned to Naval Mobile Construction Battalion, Pt. Hueneme; married to former Angie Thunn after graduation.

James Devere Jones, CE '70 (1501 E. Logan Ave., Emporia, KS 66801); formerly of Horton, Kan.

Jon R. Klingenberg, EE '70 (1489 W. Decatur, Decatur, IL 62522); wife Linda died Aug. 3, 1971; three children—Pamela, Lisa, Jeffrey; with Illinois Power Co. as load control and instrumentation engineer; recently bought new home at above address.

Cheng-Hsiung Lin, ChE '70 (Materials Science, S.U.N.Y., Stony Brook, NY 11790); working on Ph.D. in materials science.

Donald E. Lindahl, ME '70 (737 Western Dr., Bloomington, IN 47401); marketing representative, power systems distribution division, Westinghouse; working on MBA part-time at Indiana University; recently received commission in Indiana National Guard.

Randall Lee Sedlacek, CE '70 (River Ridge Mobile Pk., Lot 13, Rt. 6, Clarksville, TN 37040); formerly of Council Grove, Kan.

Larry Alan Smith, IE '70 (6360 Joliet, Apt. D-44, Countryside, IL 60525); sales engineer, Diamond Power Specialty Corp., subsidiary of Babcock & Wilcox Chicago District; wife, former Janie M. Creson, KSU '71.

Carl Franklin Summers, EE '70, now residing at 205 Claremont, Lee's Summit, MO 64063.

Kent E. Woodley, EE '70 (1118 Plasm, Topeka, KS 66604); field engineer with Kansas Power & Light since January; was 2nd lieutenant in service before joining KP&L; daughter, Kimberly Sue, 1.

Gregory J. Burnett, ME '71 (BOQ, Bldg. 3252, Rm. 333A, Naval Air Station, Pensacola, FL 32508); commissioned as ensign May 19; graduated from Naval Air School Aug. 24.

Lt. Aaron E. Carlson, EE '71 (1601 Fremont, Apt. 112, Laredo, TX 78040); married Rachel Ann Carlson, Lindsborg, Kan., June 12, 1971; instructor pilot, Northrop T-38.

Richard Alan Dixon, EE '71 (Rt. 4, Box 383, Ringgold, GA 30736); recently moved from Junction City, Kan.

Bruce Filippi, CE '71 (3051 N. E. Johnson, Roseburg, OR 97470); with Oregon Highway Division; married to former Jeannette Edmonds, KSU '68 in education; two sons—David and Tony.

Gary W. Lang, ME '71 (1722 S. Carson, Apt. 2109, Tulsa, OK 74119); design engineer, Cities Service; worked in natural gas liquid plants past six months.

David M. Lindley, IE '71 (1924 Goldsmith, Apt. 55, Louisville, KY 40218); process control engineer, General Electric, in charge of quality control on two final assembly lines; married to former Jorie Woolery.

Max A. Morgan, CE '71 (Rt. 1, Box 90B, Cimarron, KS 67835); became assistant engineer June 1 for Gray-Meade (Kan.) counties; formerly assistant city engineer, Manhattan, Kan.

Rodney Webring, ME '71 and '72 (110 Valleydale Dr., Lynchburg, VA 24502); joined Babcock & Wilcox, Reactor Division, component engineering, performance group on July 12; wife, Margaret.

Alumni Contributions Reach New High, More Gifts Needed

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, KS 66506. Dr. Nevins' phone: Area Code 913 532-5590.

Listed below are members of the two giving clubs as well as the names of individuals or organizations contributing to Ward Hall who sent in their gifts between May 18 and Sept. 30. Contributions received on Oct. 1 or later will be listed in the next issue of this newsletter.

Dean's Club . . .

Hubert Casper Jr., '59; Dr. Larry E. Erickson, '60; Prof. Dwight A. Nesmith, '52; and Charles D. Strain, '14.

\$/Year² Club . . .

Roy L. Swenson, '15; Trafford William Bigger, '19; James Wendell Pryor, '22; John Henry Hofmann, '23; Glenn Irwin Johnson, '28; Rex LeRoy Fossnight, '30; John M. Biddison, '34; Fred Meyer, '39; Ray Richard Biege, '43; Gordon D. Goering, '45; Freeman M. Vicory, '48.

Max A. Smith, '50; William E. Kennedy, '51; Eugene J. O'Neil, '55; Loyal J. Huddlestone, '58; Thomas J. Pipitone, '58; David E. Bernhardt, '61; Larry Eugene Reid, '61; Curtis Martin Beyer, '62; Robert DuBois, '65; Jack E. Baber, '66; William E. Richard, '66; Andrew Y. Lee, '68; Ben H. Lin, '68; and Ronald D. Hoagland, '69.

Robert L. Neill Jr., '69; Chris Chapman, '70; Donald F. Cole, '70; Ting-Yee Rex Wang, '70; Dr. Albert C. Yen, '70; Lawrence L. Dorgan, '71; Dale I. Ellis, '72; Richard Fornellii, '72; James V. Hall, '72; Clark T. Harbaugh, '72; Jerry E. Irwin, '72; Miss Laree Adel Mugler, '72; and Edward L. Vodopost, '72.

Ward Hall Donors . . .

Jack E. Baber, '66; Dr. N. Dean Eckhoff, '61; Capt. Francis L. Eisenbarth, '68; Gordon D. Goering, '45; Ronald D. Hoagland, '69; Charles H. Neighbor, '49; Robert L. Neill, '69; Loren E. Oberhelman, '38; LeRoy C. Paslay, '30; Ralph O. Smith, '33; and John F. Weary, '41. *Denotes a KSU engineering faculty member.

KS Center Expands, Furnishes Advice For Eight States

A civil preparedness service center in the K-State College of Engineering, which served Kansas and Nebraska during 1971-1972, is significantly expanding its activities and serving the needs of eight midwestern states.

This announcement came from Fort A. Verser, K-State instructor in nuclear engineering, director of the Regional Technical Support Center headquartered in Ward Hall (Nuclear Engineering) at K-State.

The Center has been awarded a \$74,886 contract by the U.S. Defense Civil Preparedness Agency (formerly Office of Civil Defense) to carry out these added responsibilities.

In addition to promoting the development of nuclear fallout shelters in Kansas and Nebraska, the Center provides technical guidance and assistance to architects and engineers in the eight-state region on shelter development against natural and man-made disasters.

These include blasts, earthquakes, fires, floods, hurricanes, tornadoes and windstorms.

The Center at K-State was formerly known as the state's Professional Advisory Service Center. The former Center provided technical expertise to add fallout shelters in new construction only to Kansas architects and engineers.

Then in 1971-1972 the Center's staff, Verser and consultant engineers, was asked by the federal government to provide the services to the State of Nebraska as well.

James C. Richards, Chemical Engg. '34, Joins College Body

The KSU Engineering Advisory Council held its semi-annual meeting Oct. 6 with James C. Richards, Emmett, Kan., attending his first meeting as a member of this distinguished advisory body.

Dean Ralph G. Nevins expressed pleasure that Richards, who retired last spring as president of Goodyear Industrial Products Company, Akron, Ohio, is now on the Council. Richards and his wife are residing at the Miller Ranch in Emmett.

The next meeting of the Council is set for the Thursday preceding the 49th annual KSU Engineering Open House to be held March 30-31.



ATTENDING THE 4TH ANNUAL ALUMNI SYMPOSIUM March 18 (those graduating from KSU since 1940): (Seated, l. to r.) — Edwin Kittner, ME '50; Richard Clarke, EE '49; A. W. Acker, ME '42 and Travis Miller, EE '68. Middle row — R. A. Cederberg, ME '51; G. E. Fairbanks, AgE '41; and Larry Thompson, CE '66. Top row — Bob Leach, EE '50; Bob L. Smith, CE '48; Don Lenhart, EE '56; and Do-Sup Chung, ChE '60.

Utica's Dr. Lawrence Cerny Named Adjunct Professor

Dr. Lawrence C. Cerny, Masonic Medical Research Laboratory, Utica, N.Y., has been appointed an adjunct professor in the KSU department of chemical engineering. As a professor of chemistry at Utica College, Dr. Cerny does considerable research at MMRL in gerontology and cardiovascular systems.

Dr. L. T. Fan, Kansas Power & Light Company Distinguished Professor and head of chemical engineering at K-State, pointed out that "Dr. Cerny is working directly with Dr. Walter Walawender of our department in research of mutual interest."



Dr. Walawender



Dr. Cerny

Walawender, assistant professor of chemical engineering at K-State, studied under Dr. Cerny at Utica College. Dr. Walawender joined the KSU faculty in 1969 after receiving his M.S. and Ph.D. at Syracuse University.

Cerny is sponsoring Walawender in his application for an Established Investigator award from the American Heart Association for whom Dr. Cerny does considerable research. Under the Established Investigatorship, Walawender and Cerny would collaborate on basic research dealing with "blood flow in tapered vessels in man," Walawender said.

Greg
Hardin



Greg Hardin Scholarship Given

Among new awards announced at KSU is a \$500 Greg Hardin Memorial Scholarship for Chris E. Covert, Hutchinson, Kan., senior in civil engineering.

Hardin was one of several KSU students and graduates killed in a tragic western Kansas auto mishap Oct. 3, 1971. The scholarship was set up through gifts by his parents, Mr. and Mrs. Warren Hardin, Wakeeney, and friends. The first Greg Hardin scholarship was awarded this past spring to Robert H. Kaiser, Phillipsburg, Kan.

According to his father, Warren, Trego County engineer, "Greg was quite a boy, from his birth at St. Mary's to his untimely death. He gave us pride and pleasure on every turn of his short life. We have only, and many, pleasant memories. We are grateful for having him, even though for such a short time. . . we try not to ask why, but to trust in our faith in the Almighty."

Cites Developments In Food Research

(Continued from Page 1)

search. These advances lead to better signs which improve the economics of single-cell protein processes, said Dr. Erickson.

From Aug. 21 to Sept. 4, Dr. Erickson was in Czechoslovakia presenting two papers at a symposium on Advances in Microbial Engineering: "Modeling and Analysis of Washout in Tower Fermentation Processes" and "Optimization of Hydrocarbon Fermentation Processes."

In Europe and Asia, there is a strong interest, says Dr. Erickson, in microbial protein. A number of new products containing microbial protein are being developed and tested.

He said that the samples of pork and microbial protein mixture which he had an opportunity to taste while in Prague were "very delicious."

In October, Dr. L. T. Fan, professor and head of chemical engineering at KSU, went to Kyoto, Japan, to attend the Oct. 11-14 Pacific Chemical Engineering Congress where he gave a paper on single-cell protein research activities at KSU in which he has been involved.

Besides Drs. Erickson and Fan, other KSU researchers involved in the microbial research efforts are Dr. I. C. Kao, assistant professor of chemical engineering, and P. Shah, who recently completed his Ph.D. work.

The KSU microbial engineering research activity has been supported through Dr. Erickson's NIH career development award, the KSU Engineering Experiment Station and the KSU Agricultural Experiment Station.

1972-'Good Placement Year' For KSU Engineering Grads

(Continued from Page 2)

nessee Valley Authority, Knoxville; Larry K. Mah, EE, Southwestern Bell, St. Louis; and Gary A. Mailen, ME, Black & Veatch, Kansas City, Mo.

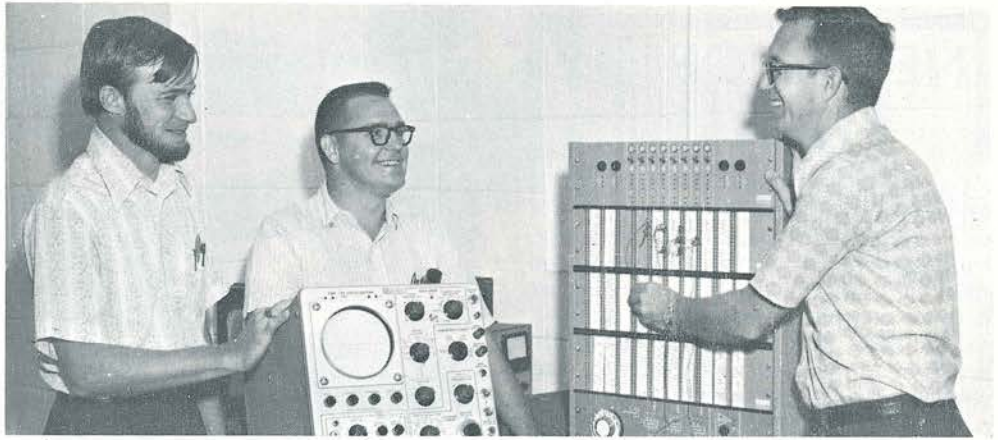
Henry J. Mantz, Texas Instruments, Dallas; Lowell D. McAfee, ME, Bendix-Kansas City; Michael W. McClurg, NE, Black & Veatch, Kansas City, Mo.; Steven A. McGinness, EE, McDonnell-Douglas, St. Louis; Raymond C. Meis Jr., CE, Wilson & Co., Salina, Kan.; James M. Melvin, CE, 2nd fl., Ft. Sill, Okla.; and Michael E. Moore, EE, seeking MBA at Oklahoma State University.

Miss Laree Adell Mugler, ME, Procter & Gamble, Kansas City, Kan.; Patrick J. Mulligan, IE, Square D, Lincoln, Neb.; William E. Nelson, NE, seeking M.S. at KSU; Richard C. Obee, EE, Shell Oil, Midland, Tex.; Jay R. Osborne, CE, Continental Pipeline, Ponca City, Okla.; and Howard L. Ott, ME, Westinghouse, Pittsburgh, Pa.

Jerry Parker, ME, Cook Industries, Reserve, La.; Alan C. Peitsch, ME, Wilson & Co., Salina, Kan.; Michael D. Peterman, ME, Cities Service, Tulsa; Richard W. Porter, ChE, attending Southern Methodist University Law School, Dallas; and Frank H. Pratt, NE, seeking M.S. at University of New South Wales, Australia as a Rotary Fellow.

Roger W. Resley, EE, General Electric, Kansas City, Mo.; Donald E. Richards, ME, seeking M.S. at Iowa State University; Terry W. Ryan, ME, seeking M.S. at KSU; William F. Schaid, ChE, Babcock & Wilcox, Barberton, Ohio; Ronald E. Seery, IE, 2nd fl., Army field artillery, Ft. Sill, Okla.; and Ray Siebert, ME, Black & Veatch, Kansas City, Mo.

Stanford A. Siemens, ChE, Phillips Petroleum, Europe; Robert H. Spitzer, ChE, Halliburton Services, Hays, Kan.; Henry R. Spurrer, CE, Eldorado Engineering, Glenwood Springs, Colo.; Ronald A. Stryker, IE,



COLLEGE TEACHERS' SUMMER INSTITUTE — Two College of Emporia professors — Loren D. Lutes (l.) and Dr. Clarence E. Linsey (c.) — took part in an Atomic Energy Commission-sponsored institute this summer in the KSU department of nuclear engineering. It was for college teachers of nuclear technicians and technologists. Lutes and Linsey studied various pieces of instrumentation including a multi-channel analyzer under the guidance of Dr. N. Dean Eckhoff (r.), KSU associate professor of nuclear engineering. The analyzer unit collects gamma ray spectra of isotopes.

Energy Systems Engineering Option Begun at K-State

Undergraduate engineering students at Kansas State University are taking an increased interest in course offerings in electrical energy systems engineering.

Faculty in electrical and nuclear engineering have identified a set of courses deemed to be good background for professional engineering careers in the electrical energy business, says Dr. Floyd W. Harris, associate professor of electrical engineering.

The K-State mechanical engineering faculty is considering the make-up of the option courses for their students.

This new emphasis at K-State on electric energy systems engineering is being developed by a faculty committee in consultation with regional utilities, consulting firms and their equipment suppliers.

Dr. Ralph G. Nevins, KSU's dean of engineering, is supporting the development of these offerings and points out that the College is in a leadership position due to interest and capabilities of the faculty, particularly in the field of nuclear power.

Dr. Harris explained that "we have and are surveying the needs of regional firms for engineers with this kind of training. We have learned that these firms in Kansas, Colorado, Missouri and Oklahoma have a significant need for such engineers and compete very well salary-wise.

"These firms should have an excellent probability of attracting our graduates who

Hallmark, Topeka, Kan.; James E. Sylvester, EE, Bell Laboratories, Naperville, Ill.; and Lot Forman Taylor II, CE, Kansas Department of Health, Topeka.

Leland W. Tice, CE, Kansas Highway Commission, Topeka; Edward L. Vodopost, ME, Black & Veatch, Kansas City, Mo.; Linley S. White Jr., IE, seeking MBA at University of Texas, Austin; Herbert Wilkie, ME, Chrysler Corp., Overland Park, Kan.; and Michael A. Wohler, EE, Bendix-Kansas City, Mo.



Dr. Floyd
W. Harris

have chosen to study electric energy systems engineering in their respective departments," he added.

Dr. Harris pointed out that the purpose of this emphasis is to encourage students to consider the career possibilities available in the electrical energy industry.

"Jobs are available in utilities, consulting firms, and equipment suppliers. We eventually hope to broaden our offerings to include a larger portion of the energy problem," he said.

A number of students will begin taking these course offerings starting with the spring 1973 term at K-State. Students completing their degrees with emphases in electrical energy systems engineering will receive their degrees in either electrical engineering or nuclear engineering.

Among the firms that have provided consultative direction and help to date in the development of this area of emphasis are Black & Veatch, Kansas City, Mo.; Empire District Electric Company, Joplin, Mo.; and Public Service Company of Colorado, Denver.

Other firms in Kansas, Oklahoma and Missouri are in the process of preparing reports in response to the K-State faculty survey.

NEWSWORTHY NOTES

Dr. George H. Larson, professor of agricultural engineering, is teaching this year and next at Ahmadu Bello University, Zaria, Nigeria . . . he taught the past two years in South America after resigning as head of agricultural engineering at KSU.

Dr. John C. Lindholm, associate professor of mechanical engineering, has returned to the engineering faculty after participating in the DuPont Company faculty year-in-industry program in Wilmington, Del., in 1971-1972.

On a recent remote pick-up from KSU, Dr. Frederick H. Rohles Jr., associate director of the Institute for Environmental Research, discussed the results of his research on thermal comfort on a talk show on radio station WMCA, New York City.

Aug. 3-4, KSU hosted a conference on fundamental concepts for hospital engineers . . . Dr. William H. Honstead, director of the Kansas Industrial Extension Service, coordinated the meeting . . . featured speakers were Dr. Ed Lindley of applied mechanics and Dr. Tom Swearingen of mechanical engineering.

G. E. Fairbanks, professor of agricultural engineering, recipient of Legion of Merit, decoration for work in U.S. Army Reserves . . . the College of Engineering has received a \$3,000 check from Continental Oil.

Applied Mechanics has received \$2,500 from Phillips Petroleum for a graduate fellowship, reports Dr. Philip G. Kirmsler, professor and department head.

Frank Bethwaite of Sydney, current Australian National Champion in NS 14 sailboat class, discussed "Low Speed Aerodynamics" on Sept. 15 at an applied mechanics colloquium . . . his visit to K-State was arranged by Dr. Michael S. P. Lucas, professor of electrical engineering.

Kent Killmer, Leawood, Kan., 1972 KSU civil engineering graduate, has received a \$250 Sigma Chi Foundation (civil engineering) scholarship grant to assist him with his graduate studies at K-State.

First recipient of an L. W. Newcomer Scholarship at KSU is Roger A. Farrell, Wamego, Kan. A 1971 graduate of Wamego High School, Farrell is majoring in civil engineering.

The department of chemical engineering has received a \$1,500 check from the Monsanto Co., St. Louis, Mo., to be used for 12 undergraduate scholarships, reports Dr. L. T. Fan, Kansas Power and Light Company Distinguished Professor and head of chemical engineering at K-State.

The K-State Engineer, student magazine at K-State, is being published five times this academic year. A three-year subscription to the magazine is \$6.00. Make checks payable to K-State Engineer and mail to: Mr. Bob Foncannon, K-State Engineer, Seaton Hall, Manhattan, Ks.



THE K-STATE URBAN CAR finished 24th in a field of 80 at the international Urban Vehicle Design Competition Aug. 7-11 in Detroit. K-State rated high with its safety bumper and in fuel economy. It was the most economical of all LP (liquefied petroleum) gas fueled vehicles in the competition.

Ford Car Air Conditioning Study Conducted by IER

Because of what is rapidly developing as an international reputation in the area of thermal comfort research, the KSU Institute for Environmental Research (IER) has been asked by engineers of Ford Motor Company to evaluate the comfort criteria for automobile air conditioning.

According to Dr. Frederick H. Rohles Jr., associate director of IER and principal investigator of the study, the contract with Ford Motor Company calls for examining the thermal responses of automobile

passengers under summer time heat load conditions.

"The problem we are concerned with is familiar to all of us here in Kansas," Dr. Rohles said. "We drive to the shopping center and park our car in the hot sun while we go inside the air-conditioned store. When we get ready to leave our car is completely heat-soaked — often as high as 120 degrees. We immediately turn the air conditioning to its maximum setting, but we are sometimes home before we get comfortable."

The purpose of the research is to study these relationships between man and his thermal environment in this situation.

The tests, which will cover a one-year period, are being conducted in the American Society of Heating, Refrigerating and Air Conditioning Engineering (ASHRAE) environmental chamber, a gift from ASHRAE to KSU. Students serve as subjects and are paid for participating. Tests began in June.

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Dean of the College
Dr. Ralph G. Nevins
Director
Engineering Experiment Station
Prof. D. A. Nesmith
IMPACT Editor
Thomas A. Gerdis

Dean Nevins, Preston McNall Get ASHRAE Service Awards

The director and a former associate director of the K-State Institute of Environmental Research received distinguished service awards June 26 from the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).

Recipients were Dr. Ralph G. Nevins, IER director and KSU dean of engineering, and Dr. Preston E. McNall Jr., former IER associate director and now director of engineering, Johnson Service Company, Milwaukee, Wis.

Nevins and McNall were among 20 ASHRAE members receiving the award for 1972. First presented in 1963, the DSA is given in recognition for having served faithfully and with distinction and giving freely time and talent on behalf of the society.

In December 1970, Dean Nevins was given the Richards Memorial Award of the American Society of Mechanical Engineers "for outstanding achievement in mechanical engineering within 20-25 years following graduation." In 1970 Nevins received an engineering alumni award from the University of Illinois where he earned his Ph.D. in mechanical engineering in 1953.