GENERAL ENGINEERING NEWSLETTER

Department of General Engineering, University of Illinois at Urbana-Champaign

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A sycamore branch in front of the Main Library which jumped out in 3D unless the viewer had his glasses on with blue and yellow filters reversed.

THE GREAT GENERAL ENGINEERING SHOW OF 1940

The wooden stairway of the old EE lab creaked and groaned ominously as the crowd surged upward, four abreast on every step, to see the brand new Engineering Open House show produced by the Illinois Society of General Engineers. We knew it was the first participation by ISGE as we had adopted the name only a few months earlier, convinced that "General Engineers' Club" just couldn't compete in a world dominated by such prestigious societies as the ASME, ASCE, AIEE (now IEEE), etc.

Exhibiting requires something to exhibit. Since most Open House exhibits were about the same year after year, we decided that our exhibit should be someting entirely new in a place where people would be coming to see other exhibits as well; that is, some place other than the Transportation Building where, in those days, people seemed to come only when they were lost while trying to find some other place. The "something new" was to be a series of moving pictures of familiar campus scenes photographed with two cameras spaced a few inches apart to produce a three-dimensional effect when projected and viewed through blue and yellow cellophane filters so that the left eye saw the film photographed with the left camera and vice versa.

Taking advantage of the between-semester vacation, we depleted the newly formed ISGE treasury by buying two rolls of black-and-white 8 mm. film and photographed the beautifully snow-dusted campus, including the lily pond and rock gardens near the forestry, which no longer exist. Prof. Springer, our advisor, had received permission for us to use space in the EE lab. We found space near the head of the stairs in a large closet that hadn't been used in years. It was filled with broken furniture and glassware and was deep in dirt. All we had to do was to remove the mountain of debris.

In some respects, this windowless room was ideal. About 20 feet long by 6 feet wide, we could place the projectors near the door and project on a screen near the far end. The 50-foot rolls of film were spliced to form continuous loops that would slide over cellophane-covered tubes, avoiding any loss of time for rewinding and re-synchronizing after each showing. In addition to a narrator and projectionist, the room could accommodate twelve visitors, six standing along each wall. We advertised our show with posters on the first floor: "Just Up The Stairs—Brand New Campus Movies in 3-Dimensional Living Color" and the like.

It worked. The first floor EE exhibit spaces simply became staging areas for people who wanted to see the new ISGE show on the second floor. Our capacity of twelve visitors every six minutes was only a fraction of the arrival rate and with lines getting longer all the time, no one wanted to waste time looking at the old ever-flowing wine bottle, or turn the crank and once again profess amazement at resistance offered by eddy currents in the disk brake. They just wanted to get in the fastest-moving line headed upstairs as soon as possible.

We soon learned the importance of getting people quickly in and out of the projection room. This not only moved the waiting crowd more rapidly but shielded it from premature comments by those who were leaving. In spite of clear instructions that the glasses should be worn with the yellow cellophane over the left eye and blue on the right, observation showed a disturbing randomness of orientation.

It was impossible for anyone to leave by going down the only stairway, which was jammed with people trying to go up. Fortuitously, the first floor of the lab extended beyond the second floor in that area and a narrow catwalk of boards led across the hot asphalt roof to an old iron ladder that descended vertically to

Mode of exit from 1940 GEOH was this iron ladder which formerly extended down the back of the E.E. Research Lab from the flat roof to the ground. Note the height compared to 6-foot Bill Koehler '80 standing on the ground.

the very bank of the Boneyard. It was the only way out. Fortunately, a full realization of what was in store did not usually occur until people were already in single file on the catwalk with others behind trying to get out.

By the end of the first day some unhappiness had developed, with EE professors taking flak from some mothers who felt their descent had been undignified or that two hours of waiting in the heat was too long for any show that lasted only four minutes, three dimensions or not. Others questioned the safety of the congestion on the stairway. Also, the morale of the EE exhibitors, occupying prime space, had sunk to a low ebb. Did you ever try to explain something to people when all you could see was their backs?

There was just no time available to change exhibit arrangements for the second day. The only "solution" would be to throw the GE's and their ---- show out altogether, but on what grounds? No one would blame them for the poor choice of location. So the second day went just like the first.

Donald C. Koehler '41

GENERAL ENGINEERING OPEN HOUSE

General Engineering Open House was a great success this year. Industrial exhibits from Sundstrand Aviation, Eastman Kodak, and the Army Corps of Engineers highlighted this year's show. These exhibits along with the various department displays and student projects made GEOH a fascinating experience for all who attended. Chairmen Bruce Gotteiner and Rory Dunn would like to thank all those who helped prepare, set up, and run the display. Your efforts were greatly appreciated.

THE MASTER'S DEGREE PROGRAM

The Master of Science degree program in General Engineering is now almost two years old. We graduated our first student in January and expect five more to be graduated in May. We are in the process of reviewing applications for the Fall 1981 class. Our graduates are being received very well by industry if we use the number of job offers and starting salary as a guide.

In case you have forgotten, this program consists of a required group of courses in the project design area with the freedom to select electives from a wide range of related areas adapted to meet the career goals of the individual student. Each student must complete 8 or 9 units of course work, depending upon the type of research or project design work taken. A student must take 1 unit of thesis research (G.E. 499), or at least 2 units in Project Design (G.E. 497). Of the remaining 7 units, at least 3 must be at the 400 level.

Three foundation courses and a thesis or project from the group below are required:

G.E. 392	Legal Problems in Engineering Design	1 unit
G.E. 491	Simulation of Dynamic Systems	1 unit
G.E. 495	Evaluation and Management of Engineering Design Projects	1 unit
G.E. 497	Project Design	2 units
	or	
G.E. 499	Thesis Research	1 unit

Courses which are related to the above and may be taken as electives are:

G.E. 330	Industrial Standardization	½ unit
G.E. 334	Introduction to Reliability Engineering	1 unit
G.E. 493	Special Problems	¼ to 1 unit

Additional elective courses may be chosen from such related areas as Control Theory, Structural Analysis, Computer-Aided Design, Bio-Engineering, Environmental Quality, Energy Utilization, Production Management, City Management, etc. A feature of the program is the industry sponsored project-design oriented thesis.

The program is open to all graduates of accredited engineering curricula who have a grade-point average of at least 4.0 on a 5.0 scale for the last two years of undergraduate study. Financial support is available for qualified applicants in the form of half-time assistantships or research assistantships which provide $5,000 for the academic year. Fellowships granted by the

Graduate College provide a stipend plus a tuition and fee waiver and may be combined with part-time assistantships. In addition, all teaching and research assistants receive a tuition and service fee waiver (for the academic year and summer session for non-resident students).

Further information and application forms may be obtained by writing to:

Professor Jerry S. Dobrovolny, P.E., Head
Department of General Engineering
University of Illinois at Urbana-Champaign
117 Transportation Building
104 South Mathews Avenue
Urbana, IL 61801

CAD/CAM LABORATORY ESTABLISHED

Long recognized for its leadership in computer-aided design education, the Department of General Engineering recently initiated an intensive effort to introduce and use Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) techniques in its program. To accomplish this, a laboratory for CAD/CAM instruction and research was established in late 1980 in cooperation with the Department of Aeronautical and Astronautical Engineering.

The laboratory, located in the Transportation Building, currently has five interactive computer graphics terminals linked directly to the University's Control Data Corporation CYBER 174 and 175 mainframe computers. The terminals include a 19 inch Tektronix 4014, two Tektronix 4010, and two Lear-Seigler graphics option ADM3A displays. A hardcopy unit is attached to the Tektronix terminals. Additional Tektronix 4014 display terminals are needed and will be added as soon as financial support from external sources can be found. Funding to date has been derived from institutional support and the General Motors Foundation.

The primary software presently used in the CAD/CAM activity consists of GIFTS-5 and TIPS-1. GIFTS-5 is a finite element based analysis package applicable to structural and mechanical problems in an interactive graphics mode. TIPS-1 is a geometric modeler based CAD/CAM system consisting of definitional, analysis, and manufacturing subsystems. Both will be integrated into the Department's instructional and research programs, providing state-of-the-art knowledge to students entering the design and manufacturing industries.

The implementation of the CAD/CAM laboratory is being guided by Professors Conry and Pleck.

JETS IN ILLINOIS

The TEAMS (Test of Engineering Aptitude, Mathematics and Science) competition, sponsored by JETS, continues to grow in popularity. TEAMS '81 will involve more than 4000 of the best high school students in Illinois. A team of 6 to 12 students represents its high school and takes tests in math, chemistry, English, physics, graphics, and biology. The scores are compiled to determine winning high schools and individual students are also recognized. The best teams from district competitions held at community colleges will compete for state and national honors in Urbana during Engineering Open House.

Illinois JETS now has an Advisory Board. Members include officers of major corporations and government. Representing the educational field are the Deans of the seven accredited engineering colleges in Illinois and a member of the Illinois Board of Education. Professional Engineering is represented by the President of the Illinois Society of Professional Engineers.

The annual NEAS (National Engineering Aptitude Search) test conducted in January and February involved approximately 1100 high school students at 50 testing centers in Illinois. NEAS is intended to give students an indication of their ability to succeed in college engineering studies. Offered with NEAS is the Self Directed Search (SDS) which gives students an opportunity to examine their occupational interests and abilities. More than 10,000 high school students participate in NEAS nation-wide each year.

FRED L. SPALDING

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FRED L. SPALDING '35, Associate Professor Emeritus of General Engineering, died January 6 in a Rockford hospital at the age of 79.

He received his B.S. in Mechanical Engineering and was a member of the faculty for 21 years before retiring in 1970.

When only 15 years old Prof. Spalding drove an ambulance for the British forces in World War I. As a member of the U.S. Army in World War II, he was assigned to the overseas branch of the British Air Ministry.

Professor Spalding was a member of and active in the American Society for Engineering Education. He was also chairman of the Committee on Drawing of the American Standards Association.

Surviving Professor Spalding are his wife, Marcella Wallace Spalding, and a daughter, Mrs. Melvin Baughman (Susan Spalding '68) of Roseville, Minnesota.

NEW G.E. ALUMNI REPRESENTATIVE

In May, 1981, WILLIAM A. CHITTENDEN '50 will step down as General Engineering Alumni Association representative on the University Alumni Association's Board of Directors. At that time he will have completed his third two-year term in that office. Bill has been very effective as our representative and we thank him for his years of service.

GARY R. ALLIE '69 had agreed to succeed Bill. With his interest in the development of the department, the college, and the university, Gary will do a fine job on the Board.

FACULTY NOTES

Professor THOMAS F. CONRY attended the ASME Winter Annual Meeting held in Chicago November 16–21, 1980. He presented a paper on "Thermal Effects on Traction in Elastohydrodynamic Lubrication." This paper will appear in a special ASME Symposium Volume on *Solid Contact and Lubrication.*

Professor OSMAN COSKUNOGLU presented a paper entitled "A Decentralized Operation Strategy for Large-Scale Water Resources Systems" at the ORSA/TIMS Meeting at Colorado Springs on November 11, 1980. I. Adiguzel was co-author. On December 10, 1980, Professor Coskunoglu presented another paper, "A Decentralized Control Strategy with an Application to the Regulation of a Set of Water Reservoirs," at the 19th IEEE Conference on Decision and Control at Albuquerque, New Mexico. This paper was published in the *Proceedings of the 19th IEEE Conference on Decision and Control.*

Professor and Mrs. W. BRENT HALL announce the birth of their second child, Janice Mary, on September 15, 1980. Professor Hall has been appointed a member of the graduate college for a term of seven years. His current research includes the calculation of allowable load factors based on sample proof load testing of structural components.

Professor RODNEY D. HUGELMAN completed his paper entitled "An Integrated Fluidic Sensor/Amplifier" and it was accepted for the Second International Symposium on Flow: Its Measurement and Control in Science and Industry. The Symposium was held March 23-27, 1981, in St. Louis, Missouri. It was sponsored by ASME, ISA, and the National Bureau of Standards, and is a "Big Event" which is held only every ten years.

Professor EDWARD N. KUZNETSOV and Professor Kenneth R. Sivier from the Department of Aeronautical and Astronautical Engineering visited the Offices of the Naval Air Systems Command and Naval Sea Systems Command at Crystal City, Virginia, on December 18, 1980. They made a presentation on the tensile structure concept for an aircraft runway and ski jump takeoff ramp system for both landbased and ship board applications. On January 15, 1981, they made another presentation on the tensile structure concept at the Naval Air Engineering Center in Lakehurst, New Jersey.

Professors KUZNETSOV and SIVIER with model of aircraft runway ski jump takeoff ramp system.

Professor HENRIQUE L. REIS and Professor Kuznetsov collaborated on a paper entitled "Variable Inertia Flywheel Concept" which was presented at the Wind Energy Conference held March 16-17, 1981, in Kansas City, Missouri. Professor Reis has joined the American Society for Engineering Education.

JOHNSTON RECEIVES ROSE AWARD

TIMOTHY C. JOHNSTON '81 of East Peoria was presented the Lisle Abbott Rose Award at the annual Honor Awards Convocation of the College of Engineering on April 10, 1981.

This award of $100, made annually to recognize an outstanding senior student in engineering, is from a fund established by friends of Lisle Abbott Rose, former director of public information for the College of Engineering, in his memory. It is awarded to a student who most nearly approaches the ideal of technical excellence combined with cultural breadth, depth, and sensitivity. In addition to the cash award, the recipient is given a small individual plaque and has his name placed on the permanent memorial in Engineering Hall.

Tim has demonstrated superior performance and leadership through excellent scholastic accomplishments while participating in technical and professional societies and other campus activities. Besides being a James Scholar he is a member of Phi Kappa Phi, Mortar Board, Tau Beta Pi, Gamma Epsilon, Attius, and Phi Eta Sigma honoraries, and has been on the Dean's List every semester. Under Tim's direction as editor-in-chief, the *Technograph* was judged "Best All-Round Magazine" in 1980 by the 70-member Engineering College Magazines Associated. While working at Caterpillar Tractor Company under the Cooperative Education Program he volunteered twice to serve as advisor to that Caterpillar-sponsored Junior Achievement company which had the bleakest outlook for the year. Both companies survived and paid a return to their stockholders.

KNIGHTS OF ST. PAT

Left to right: MICHAEL S. LAZAR and MICHAEL B. JACOBS

KNIGHTS OF ST. PAT

Two General Engineering students were named Knights of St. Pat in recognition of their contributions to the life of the college, the university, and the community. They were MICHAEL B. JACOBS '81 of Chicago and MICHAEL S. LAZAR '81 from Deerfield.

Mike Jacobs has been active in the leadership of his fraternity and of Interfraternity Council. He is presently Vice President of Mid-American Interfraternity Council Association, Eastern Regional. As a member of I.S.G.E., Mike was General Engineering Open House Chairman in 1978 and 1979. In 1979 he was President of the society. In addition he was named to the Dean's List in the fall of 1979 and the spring of 1980, and to Gamma Epsilon and Shorter Board.

Mike Lazar was President of I.S.G.E. in 1980 and Co-Chairman of the Engineering Open House in 1978. A member of Tau Beta Pi, he served on the Engineering Executives Forum Committee in the fall of 1979, on the Professional Development Conference Committee in the spring of 1980, and tutored mathematics for a semester. He worked with Spanish-speaking students for three semesters under the AMIGOS program. A good student, Mike was named to the Alpha Lambda Delta, Phi Eta Sigma, Phi Kappa Phi, and to the Dean's List every semester. In 1979 Mike was Men's Advanced Intramural Tennis Champion and a finalist in Men's Advanced Intramural Wrestling.

I.S.G.E. ACTIVITIES

The Illinois Society of General Engineers started this semester off with the continuation of its speakers program. Stephen Scott from John Deere Company spoke at the general meeting on February 4. His topic was "General Engineers in Industry." We will have a speaker from Sundstrand Corp. in the near future.

We would like to thank all of the hardworking people who helped make General Engineering Open House weekend a success, especially our GEOH chairmen, RORY H. DUNN '82 and BRUCE GOTTEINER '82, and our SITE (Student Introduction to Engineering) chairman ROBERT A. MARKGRAF '82. We would also like to thank JOHN B. HOLZ and Professors HUGELMAN and STREETER for their presentations during SITE.

General Engineering T-shirts are in! We have already sold over 100 but there are plenty more. Anyone who would like a shirt can pick it up for $4.00 in 117 Transportation Building.

This year's field trip, cosponsored with Gamma Epsilon, will be to Busch Breweries in St. Louis. The date has not yet been set but a sign-up sheet will soon be posted in the Transportation Building.

Another secondary field night is planned for this semester. It gives seniors an opportunity to outline various aspects of different secondary fields to freshman and sophomores who are undecided.

I.S.G.E. hopes to sponsor something new this semester, a General Engineering Department smoker. This social hour for faculty, staff, and students will be held at one of Champaign's local establishments. Keep your eyes open.

The election of new officers will be held this month. Any student who would like to get involved in student activities is urged to run for an office.

NEWS OF GAMMA EPSILON

Gamma Epsilon held its fall initiation banquet at the University Inn on November 13. THOMAS A. PRICKETT '60, Vice President of Camp, Dressor, and McKee, Consulting Engineers, addressed the group. His subject was "Techniques and Methods in Analysis of Ground Water Problems." The initiates honored at that time included: DONALD W. BALAS '81 of Mt. Prospect; ROBERT G. CONNOLLY '81 from Woodstock; MARIANNE M. DICKERSON '82, St. Joseph; CHERYL L. ENGEL '80 from Homewood; JAMES F. GERBER '82 of Broadview; GREGORY C. GIVLER '82, Naperville; STACY C. HAINES '82, Camargo; APRIL E. HORNE '82 of Rantoul; KATHERINE M. HUGHES '82 from Kankakee; MICHAEL B. JACOBS '81 of Chicago; MARK R. NACHTRIEB '81, Palos Park; AUDREY S. PAPENBROK '81 from Lombard; GREGORY R. REYNOLDS '82, Ames, Iowa; and JOHN A. RISLEY '81 of St. Joseph. In addition, two General Engineering graduate students were initiated; BRADLEY D. MOTTIER '79 from Mandeville, Louisiana, and RONALD L. RADLOFF '80 of Mattoon.

New members of Gamma Epsilon were initiated at the 1981 General Engineering Spring Awards Banquet on April 9 in the Levis Faculty Center. Other activities for Gamma Epsilon this spring include a field trip to the Anheuser Busch Brewery in St. Louis sometime this month, and a social hour at Grunts.

ATTENTION! WOMEN GENERAL ENGINEERS

Martha Moore Trescott is studying the history of women engineers, 1850-1975. This project will involve oral history, recording older women engineers in all fields of engineering and technology, not only those women who hold degrees and licenses in engineering but also others who have worked in engineering-related jobs who, for one reason or another, did not earn a degree or obtain a license. Also, not only the "success stories" but those who left engineering or who may not feel their contributions to be "firsts" or very valuable are of interest. Anyone who wishes to provide information about women engineers should contact Martha M. Trescott at College of Engineering, University of Illinois, 112 Engineering Hall, 1308 West Green Street, Urbana, Illinois 61801.

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'43 JERRY S. DOBROVOLNY was re-elected and installed as a National Director in the Illinois Society of Professional Engineers last spring. Jerry has held a number of offices, including that of President, in the state organization, as well as numerous offices in the Champaign County Chapter.

'50 SAMUEL DEAN ALBRECHT is President and Manager of Albrecht Well Drilling, Inc. Last fall he began marketing the IN-VERSE Drill System which he developed with help from others in his group. The system involves special tools and techniques for reverse-rotary well drilling with the top-head machines commonly used. This technique permits construction of large-diameter wells without impairing use of the same equipment for domestic work which is the main part of the firm's work. Last October Sam was elected to the Board of Directors of the National Water Well Association.

'62 D. JAMES BADER received his LL.B. from UIUC in 1964. Between 1964 and 1972 he worked as a patent attorney. In April, 1972, Jim opened a law partnership with Joesph P. Roth. Since then the partnership has been enlarged under the name of Bader, Roth, Cochrane and Brendemuhl. The firm specializes in corporate, business, and real estate law. Jim is currently President of the Rotary Club of Park Forest.

'62 After graduating from Illinois, E. JACK GEORGE spent four years in the Navy. Upon his return to civilian life Jack entered graduate school at Stanford and earned his M.S. in Industrial Engineering in 1967. The next seven years until 1974, he worked for Hewlett Packard Corporation, rising to the position of production manager, mini computer products. From 1974 to 1975 Jack was vice president of Qume Corporation which was later purchased by ITT. His present position is Operations Manager of laser products for Spectra Physics Corporation of Mountain View, California.

'62 RALPH THEODORE HOCKING received a Ph.D. from Kent University in August 1972. Dr. Hocking is Professor of Financial Administration/Management Science at Shippensburg College in Pennsylvania.

'63 Two years ago RAY RUTH resigned from Alcoa after 16 years in various management positions. He decided to set roots in Richmond, Virginia, and accepted the position of Director of Marketing and Sales at Swan, Inc., a manufacturer of beverage trucks and trailers. In June 1980, he formed a new subsidiary and is currently President, Merritt Metals, Inc., distributor of aluminum and steel throughout the Mid-Atlantic States. Ray and his wife, Jane, have three children: Robin Lynn, eleven; Scott, eight; and Courtney, two.

'64 In July 1980, FRANK J. TOMECEK, Jr., accepted the position of Vice President of Marketing for Friedman and Associates. Prior to that Frank spent 11 years in marketing with IBM and held positions in marketing with ITEL Corporation and Duplex Products.

'66 MYRON G. ODELL and his wife Cindy have a new daughter, Kristen Michelle, born in August.

'66 JAMES JEFFREY (JEFF) WILLETT is Plant Manager for Foley Drilling Tools, Inc., in Jennings, Louisiana.

'67 DENNIS J. CALLAGHAN earned his M.B.A. in

1969. He is Vice Chairman of the Association of Consulting Management Engineers (ACME) and President, Theodore Barry & Associates.

'69 LESLIE J. PAPERNER has earned the J.D. degree and is now a patent examiner in the U.S. Patent and Trademark Office.

'70 WALTER E. DE LISE received his M.S. in Nuclear Engineering from UIUC in 1971. He is presently Group Supervisor, Project Shielding, for Sargent & Lundy.

'71 In June 1980, JOHN G. HRIVNAK accepted the position of Northeast Area Sales Manager for Aeroglide Corporation. Aeroglide manufactures conveyor, rotary, tower, and flash tube process driers for food industries and others—also grain driers.

'71 DAN L. NELSON received an M.S. in Environmental Engineering from UIUC in 1973. After two years in government research and seven years in consulting, Dan joined industry on January 1, 1981, as Midwest Regional Engineer for Waste Management, Inc. As his responsibilities include the Urbana Sanitary Landfill he will visit Urbana periodically. This site is of particular interest to Dan since he designed it and prepared the original permit application for it five years ago. On the side, he has been extensively involved in professional and technical activities, serving in various ISPE chapter offices, on ISPE and NSPE committees, as ISPE/PEPP Vice Chairman and on the ICEC Scholarship Committee. In addition, Dan presented two technical papers on his work with solid waste.

'72 DALE L. DURFEY, Jr., is village engineer for the village of Oak Brook. On August 2, 1980, he was married to Mary E. Svancarek. She teaches first grade at Western Avenue School in Flossmoor. They have recently purchased a house in Darien.

'72 RICHARD H. O'CONNELL, a project engineer at Sargent & Lundy, is licensed as a professional engineer in two states. 1980 was an eventful year for him: his first son Michael was born and the 616 MW power plant on which he worked for six years had a successful start up.

'73 ROBERT B. BURNS, Jr., received the J.D. degree from the University of Texas in 1977. He is senior partner in the firm McKay and Burns, Attorneys, in Austin, Texas. Bob handles personal injury defense work and administrative law as well as serving as division attorney for the Atchison, Topeka & Santa Fe Railway Company and the Southern Pacific Transportation Company. He has directed hearings before the Railroad Commission of Texas and carried appeals through the Texas Supreme Court. Last July 3 Bob assisted his wife Marlee-Jo S.W. '74, in the birth of their first child Matthew Robert. On the side, Bob is on the Board of Directors of Planned Parenthood and active in the Austin Sertoma Club, a men's service organization. He feels that "living in Austin, Texas is terrific."

'73 JOSEPH JOACHIM SARMIENTO, Jr., and his wife Nancy announce the birth of their first child, Joseph Joachim Sarmiento III, on January 19, 1981. Joe is a medical resident at the Naval Regional Medical Center in San Diego. Next August he will be a cardiology fellow.

'73 ERIC LEWIS TERLIZZI received his J.D. degree from UIUC in 1976. On January 1, 1980, he became a partner in the law firm of Miller, Pfaff, Garner and Terlizzi. Last September 7 their first child, a son Marcus Matthew, was born to Eric and his wife, the former Janet Harmon B.A. '74.

'74 After leaving school, ROBERT C. EDSTROM worked for Bell Labs for four years and earned his M.S. in Mechanical Engineering from the University of Michigan. He is now a senior research engineer for Freightliner Corporation, a manufacturer of large trucks in Portland, Oregon. Rob works in the Advanced Engineering Technology Group which investigates new technology and seeks ways to apply it to the firm's business. Still single, he owns a house, enjoys his work, and does a lot of skiing and mountain climbing, including Mt. St. Helens before the eruption. Rob recently interviewed a prospective employee who has his B.S. in General Engineering from UIUC. One of the most important and valuable items considered in the evaluation of this person was his G.E. 242 Senior Project Design Report. It represented the sort of work the job would entail.

'74 THOMAS H. KUSEK is a civil engineer with the Department of the Army, Chicago District, Corps of Engineers. He wrote thanking Professor J.S. Dobrovolny for insisting that all General Engineering seniors take the Engineer-in-Training exam. Tom is now a Registered Professional Engineer in Illinois and feels that Professor Dobrovolny is largely responsible.

'74 JAMES W. REDLICH was awarded the J.D. degree by Suffolk University Law School in June 1977. At present Jim is an assistant public defender in Cook County.

'74 The University of Wisconsin, Milwaukee, awarded STEVEN J. SMILEY an M.B.A. last June. Steve then accepted a new position as Materials Manager at Badger Meter, Inc. As such he is responsible for Production and Inventory Control, Purchasing, Receiving, and Storerooms. In October Steve presented a paper entitled "Aggregate Planning in a Multi-Plant Environment" at the American Production and Inventory Control Society (APICS) International Conference in Los Angeles.

'74 STEPHEN S. WOLFF received his J.D. degree from John Marshall Law School last June. He is now associated with Alter and Weiss, a litigation firm dealing primarily in the areas of patents, trademarks, copyrights, and unfair competition cases.

'75 JAMES J. D'ORAZIO was awarded his M.S. degree in Management by Purdue University last December. He is now a project engineer with Inland Steel Company. Jim and his wife Paula announce the birth of their son, Jason Paul, on January 11, 1981.

'75 KENNETH MICHAEL GRACHAN is senior project engineer with Sperry Flight Systems in Pheonix, Arizona. 1980 was an eventful year for Ken. He received his Illinois professional engineer's registration in March. In May, Illinois Institute of Technology awarded him an M.S. in Electrical Engineering. On October 4 he was married to Margaret Rose Carollo.

'75 JAMES J. SCHLEMBACH is in his fifth job with the Monterey Coal Company since graduation. He is now Operations Planning coordinator at Monterey No. 1 Mine near Carlinville. In this job Jim spends almost all of his time underground on construction jobs and coordinating mining activities. He has become an avid

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motorcyclist and is taking piano lessons.

'76 On December 1, 1980, BRUCE R. BARTHOLOMEW was promoted to Associate Plant Engineer of the Watseka, Illinois, plant by UARCO, Inc. His duties include supervision of a portion of the maintenance staff and work on special projects.

'76 Last May ROBERT C. BRAUN accepted the position of Process Engineer with Phillips Products Company, a subsidiary of the Phillips Petroleum Company. He had worked the previous four years for Ekco Products Company.

'76 Since last September MARIANNE ANDRASEK GOREN has worked as Sales Representative for a manufacturer's representative firm. She sells electronic components in the Dayton and Cincinnati areas and enjoys the work very much. She continues to work toward an M.B.A. at the University of Dayton in evening classes.

'76 GARY A. HETTLER and Luann Simmons were married last fall. Both are employed at the Veterans Administration Medical Center in Danville, Gary as a safety engineer and Luann as a lab technician.

'77 BRADFORD W. DICKSON is a project manager for Ingersoll-Rand Company in Houston, Texas.

'77 WILLIAM C. PAYDEN reports that early this winter he bought and moved into a large house in Moline and is now busy redecorating it.

'78 JEFFREY C. ALBRECHT is a manufacturing engineer with the Andrew Corporation of Orland Park.

'78 After working two years for Westinghouse, J. WILLIAM DAY has gone back to school studying for an M.B.A. at Cornell University in Ithaca, New York.

'78 BARBARA J. DOHENY is a system engineer in digital radiography for the General Electric Medical Systems, currently working on the development of a new medical modality—digital X-rays. She has been going to graduate school at night since 1978 and expects to receive an M.S. in Electrical Engineering from Marquette University next May. In August Barbara plans on being married to Vic Franciose of Chicago.

'78 KENNETH E. LAVELLE has been employed by Borg-Warner Corporation since June 1979. He is Senior Design Engineer in the Mechanical Seal Division. In November 1979, he was married to Sandy Thompson.

'78 TIMOTHY D. WILSON writes, "After working on Champion's (Champion International Corporation) $150,000,000 expansion of their existing pulp and paper mill in Missoula as a staff engineer and later as an area project engineer (for Corporate Engineering—Hamilton, Ohio), I have been promoted to the position of Project Engineer for Mill Operations Engineering at the Missoula Mill. (As a note of interest to future General Engineering grads, I started at $16,500—am now at $27,600.) My wife Sue and I built our own house and had a son Jeff in April of 1980. Much thanks to the University of Illinois."

'79 PHILIP M. ANDERSON was married to Martha Jane Hill late last summer. Phil is an engineer with A.C. Spark Plug in Flint.

'79 BARBARA L. EDSTROM, sister of Robert Edstrom '74, is finishing up her M.B.A. at the University of Michigan and is seeking a job, preferably in international business.

'79 JAY RICHARD GOLDBERG received an M.S. in Bioengineering from the University of Michigan last August and is now a product development engineer with DePuy in Warsaw, Indiana. As such his responsibilities include the design and development of orthopedic implants. Jay is in charge of knee and ankle implants and works with orthopedic surgeons and engineers from the initial idea stage to the manufacturing stage.

'80 EUGENE V. DUNN, Jr., is a manufacturing engineer at the Western Electric Company's Montgomery Works.

'80 BRIAN G. EBERLE is attending the UCLA School of Law.

'80 JEFFREY M. FRAME and JOHN C. O'CONNOR were assigned to Naval Flight School in Pensacola, Florida last fall.

'80 GARY ALLEN GLUCK is a field engineer for Square D Company in California.

'80 BRUCE OLAV GONSHOLT is Assistant Sales Engineer—Industry Products for Westinghouse Electric Corporation.

'80 ROBERT S. GORDON, attending Stanford University Law School, writes "The workload is formidable but no one has become neurotic about it. . . . The products liability of G.E. 392 has proven helpful, especially in torts."

'80 SUSAN E. KENNEY, a manufacturing engineer with IBM in Austin, Texas considers both Austin and IBM to be terrific.

'80 SILVANA A. MEDINA believes that working with A.T. & T. Long Lines as a staff supervisor, human factors engineering, on their Manager Development Program is giving her great background in administrative skills. This training will be valuable when she starts studying for an M.B.A. at Harvard University as a deferred admit candidate in the fall of 1982. Silvana and the two engineers working for her mostly address the human factor aspects of the network's computer operation support systems and related work centers.

'80 STEPHEN H. MITCHELL expects to receive a master's degree in Construction Engineering and Management from the University of Michigan next May. After graduation he will join his father in the construction business as a project engineer for Shawnee Constructors, Inc.

'80 Last May THOMAS LEE STONE joined Hughes Aircraft as System Safety Assurance Engineer. In December Tom was promoted to Assistant Project Manager. The Hughes Aircraft plant and offices are adjacent to the Los Angeles Airport.

'80 RALPH T. WAKERLEY is studying for an M.B.A. which he expects to receive in December, 1981. Starting last December, Ralph is working as a research assistant at CERL, "a U.S. Army Engineering research facility which does architectural and engineering designing."