



GENERAL ENGINEERING NEWSLETTER

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

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HOWARD W. KNOEBEL

PROFESSOR KNOEBEL RETIRES

Professor HOWARD W. KNOEBEL is retiring in May after 31 years of service to the University. He has taught in the General Engineering and Aeronautical and Astronautical Engineering Departments and done research in the Coordinated Science Laboratory.

Professor Knoebel graduated with honors from the University of Illinois in 1950 with a B.S. degree in Electrical Engineering. He was a member of Sigma Tau, Tau Beta Pi, Phi Kappa Phi, and Eta Kappa Nu honor societies and was President of the Illini Figure Skating Club. Originally in the class of 1946, his education was interrupted by military service. He was on the staff at the U.S. Navy Radio Material School, Navy Pier in Chicago, and participated in the 1946 Atom Bomb Tests at Bikini Atoll before returning to the University of Illinois. As an undergraduate Professor Knoebel worked in the Physics Department where he developed electronic instrumentation for nuclear magnetic resonance and participated in the discovery of the nuclear resonance spin echo. His graduate study and research assistantship in Physics were interrupted in 1950 when he joined the newly formed, military sponsored, Control Systems Laboratory which was organized as an emergency measure because of the Korean conflict. As a research associate, he worked on the development of airborne radar systems for target tracking, navigation guidance, and terrain mapping. Named Research Associate Professor in 1957, Knoebel was responsible for development of the electric field levitated vacuum gyroscope, a high-precision inertial navigation instrument which is now an important part of many precision aircraft and nautical guidance systems. The gyroscope, completed in

1964, combined disciplines of mechanics, electrical engineering, optics, and ultra high vacuum physics. This inter-disciplinary project was instrumental in the formation of the Coordinated Science Laboratory.

In 1964 he was promoted to Professor, teaching in Aeronautical and Astronautical Engineering and continuing his research programs. These included rocket born radio propagation experiments for studies of the upper atmosphere; studies of the feasibility of a gyroscopic earth satellite for a test of general relativity; development of techniques for identifying passing vehicles by virtue of their induced seismic vibrations; and development of computer memories based on photographically reversible color center images. He also developed highway vehicle entry-exit and driver-control systems for severely handicapped individuals confined to a motorized wheelchair.

In 1975 Professor Knoebel joined the General Engineering Department to teach design and control systems courses while continuing with a wide range of other interests such as programmable calculators, machine shop technology, and the design and construction of a round barn. He is a director of Hansvedt Engineering and does occasional consulting. Although he is retiring, Professor Knoebel may continue to do some teaching on a part-time, as-needed basis.

With retirement, Professor Knoebel hopes to get away from deadlines and spend more time with his hobbies. He has a 120 acre, mostly wooded, farm near Mattoon where he keeps bees, gardens, and helps with the farm work. He hopes to carry out such engineering projects as a solar water softener and perhaps a solar heated house, and to find more time for building fine furniture from his own native walnut and for experimenting with and rebuilding electronic organs.

LARGE DESIGN CLASS

Enrollment this semester in General Engineering 242, the senior design course, is fifty-eight students, the largest it has ever been. The students have been divided into eighteen design teams. Thus eighteen different projects are required.

Of those projects only one is sponsored by the Department of General Engineering. All of the others are supported by industry. Seven are sponsored by Illinois firms: Sundstrand Aviation of Rockford; U.S. Industrial Chemicals Co. in Tuscola; Illitron, Division of Illinois Tool Works, Chicago; Chicago Bridge & Iron

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MASTER'S DEGREE PROGRAM IN GENERAL ENGINEERING

Since engineering design today involves large projects that cross traditional lines, the management of such projects requires both a knowledge of modern decision-making theory and engineering design capabilities. The Master of Science degree program in General Engineering at the University of Illinois is structured to emphasize project planning and execution, stressing the design function for large-scale projects.

The program consists of a core of required courses in the project design area with the opportunity to choose 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 design project undertaken. At least 2 units must be in Project Design, or 1 unit of thesis research plus 1 unit in a related field may be substituted. Of the remaining units, at least 3 must be at the 400 level.

The capstone of the program is the industry sponsored project-design activity. The student will work in two- and three-person teams on design projects provided by industry. This professional communication with practicing engineers enables the student to acquire invaluable insights into the practice of engineering unavailable through other educational programs.

Research opportunities at the University of Illinois cover a wide range of areas. The faculty in the Department of General Engineering are involved in such research areas as Systems Engineering, Operations Research, Computer-Aided Design, Tribology, Bio-Engineering, Control Systems, and Computer-Aided Manufacturing, among others. In addition, opportunities for research exist across the College of Engineering, as well as the entire University, in cooperation with the various departments and research laboratories.

The program is open to all graduates of accredited programs in engineering who have a grade-point average of at least 4.0 on a 5.0 scale for the last two years of undergraduate study. Applicants should have taken undergraduate courses in differential equations, electrical circuit theory, control systems theory, machine or structural design, thermodynamics, and fluid mechanics. However, any deficiency can be made up.

Financial support is available for qualified applicants. Half-time assistantships and research assistantships provide \$4,000 for the academic year. Fellowships granted by the Graduate College provide a stipend and tuition and fee waiver, and may be combined with part-time assistantships. In addition, all teaching and research assistants are awarded a tuition and service fee waiver valued at \$2,474.

You may obtain further information and application forms by writing to:

Professor Jerry S. Dobrovolny, Head
Department of General Engineering
117 Transportation Building
University of Illinois at Urbana-Champaign
Urbana, Illinois 61801



What Prof. Ramamurthy saw.



Prof. Ramamurthy watches.

DID YOU SEE IT?

There was an eclipse of the sun on February 26. Remember? On the right you see how Professor RAMAMURTHY sat in his office at the south end of the first floor of Transportation Building watching the image of the eclipse of the sun as it shone through the venetian blind onto his table. What did he see? According to the other picture he saw the image of the eclipse on the table, on a white cardboard, and a reflection of the cardboard image in the polished table top.

JETS AND MITE TWO-WEEK SUMMER PROGRAMS

The College of Engineering will again host JETS (Junior Engineering Technical Society) and MITE (Minority Introduction to Engineering) two-week summer programs. The MITE program will be held from June 24 through July 7. This program will represent the eleventh program since its inception. Over 500 minority students have participated and approximately 60% have gone on to study engineering.

The JETS program will be held from July 8 through July 20. The JETS program started in 1962 and there have been nearly 1000 participants during that time.

In both of these programs the participants spend two weeks attending classes where they learn about engineering through lectures, discussions, laboratories, demonstrations, and tours.

G.E. PROJECT WINS EOH AWARD

BARBARA L. EDSTROM '79, Springfield, was awarded a second place plaque for her project in Engineering Open House. Titled "Dynamic Modeling of Economic System," it was entered in the category "Projects that Demonstrate Engineering in Today's Society." Barbara used the department's analog computer with digital logic to program the model. Her inputs were interest rates and demand. The resulting outputs were investment, employment, gross national product, and prices. Professor Louis Wozniak advised Barbara as she developed the project.



ROSEMARIE F. OREHEK

KNIGHT OF ST. PAT

ROSEMARIE "ROSIE" F. OREHEK '79, North Riverside, is the only G.E. student to be named Knight of St. Pat this year. A member of the Society of Women Engineers for four years, Rosie has been very active in that organization. As a freshman she was chairman of the Communication Committee. In her sophomore year Rosie was Vice President for a semester and then President. She was chairman of two committees for the last Career Conference for High School Girls. This year Rosie has been the society's representative to Engineering Council. As a member of the council she served on the Best Society Committee, the Everitt Teaching Award Committee, and the Dean's Advisory Committee.

Rosie was elected to five honoraries: Alpha Lambda Delta, Omicron Delta Pi, Phi Kappa Phi, Tau Beta Pi, and Gamma Epsilon. She participated in the Personnel Committee for the Tau Beta Pi Executive Forum and is now Chairman of the Executive Liaison Committee. Her activities in Gamma Epsilon have included helping to plan the initiate banquets.

In 1977 Rosie went to the annual meeting of the American Society for Engineering Education to serve as an undergraduate member of a panel of students. She also attended the American Power Conference that year. This year Rosie held one of the two Ingersoll Rand Scholarships for G.E. students. Just recently she was one of ten students invited to take part in the Chancellor's Conference. In her spare time she participates in intramural sports, jogs, bakes, and creates needle point designs.

ENGINEERING OPEN HOUSE

The theme for this year's Engineering Open House, held on March 9 and 10, was ENGINEERING TARGET: TOMORROW. Under the leadership of MIKE JACOBS '81, chairman, and RAMON MENDOZA '81 and JOSEPH HALIDAY '81, assistant chairmen, the General Engineering students produced an interesting exhibit. Several companies which have sponsored G.E. 242 design projects sent industrial exhibits. These were combined with various departmental displays. Students working in the General Engineering exhibits on Friday and Saturday wore special red T-shirts which had an adaptation of the EOH logo printed in blue on the front.

I.S.G.E. ACTIVITIES

The Illinois Society of General Engineers held its first meeting on February 19. New officers were elected for 1979. They are: president, MICHAEL B. JACOBS '81 of Chicago; vice president, BRIAN J. GALLEY '80, Ottawa; treasurer, MITCHELL S. FEIGER '80 from Wilmette; secretary, MARK A. SCOTT '82 of Blue Mound; EOH chairman, JOSEPH A. HALLIDAY '80 from Flossmoor; engineering council representatives, MICHOLAS F. BUDD '82 from Lacon and KIRK W. LANGFORD '81 of Champaign; and student advisor, ROSEMARIE F. OREHEK '79, North Riverside.

Last semester the students won the annual Strike O'Bryant Bowling Tournament. Professor Davis claims they did it by cheating.

The Noon-Time Forums are being continued. These meetings are scheduled on a Tuesday or Thursday from 12:00 noon to 1:00 P.M. in Room 306 Transportation Building. They are in addition to the regular evening meetings. Other activities planned for this semester are the preparation of a large wall calendar listing events for 1979-80 and, of course, the volleyball tournament for all I.S.G.E. members.

Special events are already being scheduled for next fall. First will be a picnic for all society members and the faculty. Next will be a bike rally on a route laid out around the campus with specified check points. This will be open to all engineering students with a prize to the winner. Later in the semester there will be Monte Carlo Night for all General Engineers. Casino-type games, cards, etc., will be available. Sometime in the fall the members will challenge the faculty to another bowling tournament.

NEWS OF GAMMA EPSILON

Gamma Epsilon held its fall initiation banquet Thursday, November 9, 1978, at the Levis Center. The speaker was JAMES L. DOBROVOLNY '71, an assistant states attorney for Champaign County. He spoke of his law school and job experiences as a General Engineering graduate.

The fourteen initiates honored that evening included: ERIC M. AUSTIN '80, Aurora; CATHERINE E. CLARY '81, Elk Grove Village; JOHN T. DAUM '79, Charleston; DANIEL D. DOERFLER '79, Springfield; DOUGLAS P. GOETZ '80, Metamora; RICHARD J. HREBIC '79, Burbank; TIMOTHY C. JOHNSTON '81, East Peoria; GERALD M. LATTER '80, Cincinnati, Ohio; DANIEL K. MANKIVSKY '79, Downers Grove; JAMES I. MARCHMAN '79, St. Elmo; MARK A. MEDVIK '79, Marion; STEVEN J. STUBITZ '79, Arlington Heights; DAVID A. THOMPSON '80, Glenview; and RALPH T. WAKERLY '80, Western Springs.

IN MEMORIAM

- JOHN HENRY SUTTER '25 October 25, 1978
- JOHN C. HAUGELAND '40 August 11, 1978
- ARTHUR BAYARD CONARD, Jr. '41 October 11, 1977

FACULTY ACTIVITIES

Professor WILLIAM P. BEAZLEY presented a paper at the International Conference on Cybernetics and Society in Tokyo, Japan, last November. His paper was titled "Effect of Spatial Cues in Node Arrangement on the Learning and Retention of Digraphs," and examined the effectiveness of interactive graphics displays for conveying engineering information to the designer. While in Japan Professor Beazley also attended the Fourth International Joint Conference on Pattern Recognition which met in Kyoto.

Professor THOMAS F. CONRY returned in January from his sabbatical leave at the University of Cambridge in England. At Cambridge he did research on the rheological behavior of lubricants under elasto-hydrodynamic conditions which occur in the operation of gears, cams, or ball and roller bearings. He also attended the Fifth Leeds Lyon Symposium on Tribology at the University of Leeds in September.

You may now address Mr. OSMAN COSKUNOGLU as DOCTOR COSKUNOGLU. He successfully defended his Ph.D. dissertation on December 8, 1978, to complete the requirements for his doctor's degree. On February 6 Dr. Coskunoglu gave a seminar in the Optimization Seminar Series which was organized by the Departments of Mechanical and Industrial Engineering and of Mathematics. His topic was "A Large Scale Optimization Procedure for the Conjunctive Use of Surface and Ground Water Resources."

Professor WAYNE J. DAVIS expects to spend the summer at Argonne National Laboratory in the 1979 Summer Faculty Research Participation Program. He will be in the Energy and Environmental Division studying the feasibility of using solar energy in industrial situations as an alternate energy source in areas with high air pollution. He will approach the project from two angles: one, economic, the other, improvement in air quality.

Professor S. RAMAMURTHY attended the ASCE National Convention in Chicago last October where he served on the Committee on Electronic Computation. His paper "Optimization of Prestressed Concrete Slabs Using Primal Geometric Programming" was published in the *International Journal for Numerical Methods in Engineering* for 1978.

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Corp. in Oak Brook; Freeman United Coal Mining Co. of West Frankfort; Microswitch Division, Honeywell, Inc. of Freeport; and Kemco Engineering Corp., also in Freeport. Two projects are supported by Beloit Corp. of Wisconsin. Technical Innovations Co. of Tempe, Arizona, and General Electric Co. of Louisville, Kentucky, are each responsible for three. Chrysler Corp. in Detroit and Eaton Corp. in Cleveland each sponsor a single project.

This large number of industrial sponsors has brought an interesting variety of projects. They range from the solution of problems encountered in the manufacture of paper products to the design of evaporative-cooling air conditioners for the home.

ALUMNI NEWS

'22 CHARLES H. RYSTROM is semiretired from a career with Sundstrand Machine Tool Co. of Rockford, later known as Sundstrand Corp. He managed the company's pump division and holds eight U.S. patents on hydraulic pumps. He and his wife have three children: Julie Rystrom Cannon '66, T. Joann Rystrom '68, and Jack Rystrom.

'42 PAUL P. BOLENDER is Sales Manager for Watubotek, Inc., of Dubuque, Iowa.

'43 ARTHUR T. POPE stopped by the department on March 8. He was on his way from the southwest to his home in Gladstone, Michigan. Art is retired and spends much of his time visiting his five grandchildren.

'47 ROBERT HARLAN CALDWELL has been active professionally as an engineer, contractor, and manufacturer. He is presently the president of Grizzly Corporation, a position he has held since 1966. Mr. Caldwell has served on the Board of Directors of each of several corporations. In addition he has been active in many local civic organizations and affairs.

'50 SAMUEL DEAN ALBRECHT is President and Manager of Albrecht Well Drilling, Inc., and of Albrecht Farms, Inc. In 1977 he served as Delegate to Southeast Asia with the National Water Well Association. Currently he is a director of the Illinois Water Well Association and on the state Water Well Drilling Contractors Licensing Committee. Dean has been very occupied with irrigation wells, a major building program, and the development of new drilling equipment in the past few years. His son, HAROLD DEAN ALBRECHT, G.E. 1977, is participating full time in the drilling. Harold is the fourth generation to enter the family business which was started by Dean's grandfather in 1880.

'50 WILLIAM R. RIMBEY and DONALD H. RIMBEY, brothers, have formed a consulting engineering firm in Tampa, Florida. The firm, Rimbey, Howell and Rimbey, Inc., engages in a general engineering practice in the areas of mechanical, electrical, structural, safety, and fire protection engineering. Don serves as President and Bill as Secretary-Treasurer of the firm. Bill worked for Dodge Division of Reliance Electric for twenty-seven years. He held a number of engineering positions with the corporation before leaving to join his brother in Tampa. Don has experience in both industry and education. He was a member of the faculty of the Department of General Engineering for eight years during the sixties.

'53 HAROLD J. SLAUGHT earned an M.B.A. at Creighton University in 1968.

'54 DANIEL WAYNE URISH received his M.S. in December, 1964, from the University of Washington and his Ph.D. from the University of Rhode Island in August, 1978. After twenty-one years in the U.S. Navy, he left it to start a new career as Assistant Professor of Civil Engineering at the University of Rhode Island last fall.

'57 ROLAND E. RUBLE had an eventful summer in 1978. His younger son, Tod, graduated from high school; Kevin, his older son, received his B.B.A.; and Roland, himself, received his M.B.A. in August from Pepperdine University.

'58 JON L. PEACY was awarded an M.S., Civil Engineering (Air Resources Option) by the University of

Washington, Seattle, in 1971. He is a marketing engineer with UOP, Inc., the designer and builder of the Solid Waste Resource Recovery System. This system takes all kinds of residential, commercial, and non-problem industrial solid wastes just the way they are delivered and processes them into usable energy and marketable materials.

'59 RICHARD L. HOARD is President, Ecodyne Corporation, a marketing unit of Trans Union Corporation. Its activities encompass the designing, engineering, manufacturing, and installation of both systems and equipment for the treatment of water and wastewater, and for the water cooling industry.

'60 MARVIN L. MRNKA has left Powers Regulator Company after eighteen years to become Sales and Marketing Manager for Refergy, Inc. This is a new company formed to help solve the solid waste disposal program faced by all communities. Refergy is marketing a turn-key incinerator plant which generates steam as a by-product. The plants are modular and are designed for small or medium sized cities with refuse quantities of 100 to 500 tons per day. As the E.P.A. closes present land fill sites, the potential for these plants becomes greater.

'60 THOMAS A. PRICKETT has been named Vice President of Camp, Dresser & McKee, Inc., the largest U.S. consulting firm specializing in environmental engineering and related services. Prickett had been regional manager of the firm's Champaign office since 1977. He specialized in groundwater investigation, analysis, and modeling.

'64 GEORGE R. "DICK" ARMSTRONG was selected for promotion to Commander in the U.S. Navy Supply Corps and left the states for Japan last December. He is Director of the Fuel Department at the Naval Supply Depot in Yokosuka where he oversees seven fuel terminals with 50 military and 450 Japanese civilian employees. Just before leaving for Japan, Dick completed requirements for an M.S. degree in Petroleum Management at the University of Kansas. There he was named to Beta Gamma Sigma, the national business scholastic honorary, and served as graduate school representative on the Executive Committee of the Business School. In his spare time he earned an instrument rating in single-engine aircraft.

'64 ROBERT A. PAVELICK was awarded an M.B.A. by Sangamon University in May, 1975. Last fall he accepted the position of Network Design Staff Manager with the Continental Telephone Company of Texas in Dallas, leaving Illinois Bell Telephone Co. after ten years of service in various engineering positions. In this new assignment Pavelick is responsible for Construction Budget, Inventory and Records, and Outside Plant Engineering Staff functions.

'65 RONALD J. KESSNER, after five years as Branch Manager of the Machine and Systems Division of Carrier Air Conditioning Co. in Jacksonville, Florida, was promoted to Branch Manager, the same division, in Atlanta. In his new position Kessner is responsible for managing the sales activities for large industrial and commercial air conditioning installations in Georgia. A major contract received in 1978 was for air conditioning Southern Bell Telephone Company's new headquarters building for 5200 tons and \$1,200,000. Ron was appointed Membership Chairman for the Atlanta Chapter of ASHRAE in July, and in October he was elected Vice Chairman Membership for Region IV

ASHRAE. September found Ron and his wife Kathy in Syracuse, New York, for an award dinner as 1978 Machine and Systems Division Sales Manager winner.

'65 CHARLES WESLEY ROWLEY plans to continue his graduate education by taking evening courses leading to an M.B.A. at the University of Santa Clara. He received an M.S. in Nuclear Engineering from the UIUC in 1967. Rowley has over ten years experience in reactor and power plant startup, test, operations, and maintenance in commercial PWR and BWR nuclear power plant projects and the U.S. Navy nuclear submarine program. At present he is a consultant engineer with Nuclear Services Corp. in Campbell, California.

'67 DENNIS JAMES CALLAGHAN received an M.B.A. degree from the UIUC in 1969. In the fall of 1976 he moved to Atlanta, Georgia, to open a southeastern office for the national management consulting firm of Theodore Barry & Associates. Callaghan was promoted to Senior Vice President of Eastern Operations in August, 1978. This promotion brought responsibility for Theodore Barry & Associates' offices in Atlanta, New York, and Chicago, requiring him to direct one-half of the firm's management consulting operations.

'67 MICHAEL DAVID DINITZ is Staff Assistant to the Administrative Vice President of McMaster-Carr in Elmhurst.

'68 DEWAYNE L. FREY received his D.Ed. degree in August, 1978, from Nova University, Florida, and is now Dean of Career Programs at Black Hawk College in Moline.

'69 JACK PAUL SHALLOW is working in California with the Allen Bradley Company.

'70 EARL S. "SANDY" MOLDOVAN has been Vice President of Keefauver, Hillegonds & Moldovan Engineers, Inc., since October, 1973. He is also Secretary-Treasurer and Partner of Group III Consultants, Inc., the parent organization of Keefauver, Hillegonds & Moldovan Engineers, Inc., and of Moldovan & Associates, Inc. His general areas of responsibilities with all corporations include company-wide project development and general corporate organization. Sandy was recently named The Young Engineer of the Year by the Peoria Chapter of the Illinois Society of Professional Engineers.

'71 RICHARD ANTHONY CIELLO is president and owner of C-L-O Industrial Products, a company which he started in January, 1978. Ciello is a manufacturer's representative, or sales engineer, selling bearings, springs, die castings, and rubber parts to the O.E.M. market in northern Illinois, southern Wisconsin, and northwestern Indiana.

'71 DANNY L. NELSON received his M.S. degree in Civil Engineering (Sanitary Engineering Option) from UIUC in 1973. A project engineer for Consoer, Townsend & Associates, he is able to devote nearly all of his time to solid waste. His projects range from land fills and transfer stations to co-disposal of prepared solid waste and sewage sludge in fluidized bed reactors with heat recovery as steam.

'72 SAMUEL E. ESKRIDGE of General Motors Corporation was on campus in February, along with other members of the firm's advanced recruiting team.

'73 MICHAEL F. PURCELL, Project Manager for the Burroughs Corporation in Pennsylvania, is acting as

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Data Base Administrator for a large-scale manufacturing management information system.

'74 MARK C. BENTON completed work for his Ph.D. in Mechanical Engineering at the University of Wisconsin, Madison, last August. His wife Becky Sue (Radio and Television '74) completed her M.S. in Home Economics Education also. They are now located in Wilmington, Delaware, where Mark is a research engineer in the Machine Dynamics Group at E. I. Du Pont De Nemours, Inc.

'74 DAVID L. HAGEN is a senior medical student at the University of Illinois Chicago Medical Center. Present plans call for him to take his last year at King's College Hospital in London, England.

'74 MICHAEL E. KERR started with Union Carbide Corporation in December, 1973, as a Systems Design Engineer in the Wastewater Treatment Engineering Department. A year later he was promoted to Assistant Manager of Salaried Personnel with a staff of three professionals and three secretaries. Mike received his M.B.A. in June, 1977, from the State University of New York at Buffalo. In March, 1978, he was promoted to Project Controller for the firm's Municipal Environmental Systems Department. As controller Mike performs various business functions such as planning, forecasting, and budgeting for a \$40 million per year business. He comes regularly to UIUC to recruit engineers for Union Carbide.

'74 STEVEN J. SMILEY recently accepted the position of Inventory Control Manager, Electronics Division, Allen Bradley Co. His responsibilities include production planning, inventory planning, systems design, and technical support. The Electronics Division is currently building a new plant in El Paso, Texas, which, when completed in June, 1979, will replace the Milwaukee facility for electronics production.

'75 PHILIP S. ABRAHAMS received his J.D. degree from Northwestern University Law School last June and joined the Chicago law firm of King, Robin, and Pillinger.

'75 KENNETH MICHAEL GRACHAN is a project engineer at the Andrew Corporation in Orland Park.

'75 HERBERT J. GREEN joined the Solar Energy Research Institute (SERI) October 23, 1978, as an associate engineer in the Thermal Conversion Branch. Most of his time is spent on a large economic analysis project involving solar applications in industrial process heat. Eventually he will spend part of his time working on ocean thermal energy conversion (OTEC). This is a scheme for large scale generation of electrical energy by using ocean thermal gradients.

'76 ROBERT C. BROWN is an industrial engineer at Ekco Products.

'76 MARIANNE ANDRASEK GOREN has been promoted to a reliability engineer at Copeland Corporation. As such, she is involved in warranty and failure analysis, using the computer, and managing the test facility. On the side Marianne is teaching evening courses in computer programming at Edison State College.

'76 NEAL DEAN SIEGEL was married in July, 1976. They have one child, Jennifer, who was born January 3, 1978. Neal is a sales engineer in the construction field for Westinghouse Electric Corp. His work entails selling electrical distribution equipment to electrical

contractors through bidding, negotiating, and managing the jobs once the orders are obtained. Neal deals with architects, engineers, electricians, and businessmen. He finds his work a challenging, rewarding, and educating experience, and enjoys it to the utmost. His general engineering courses have provided an ideal background for the job by preparing him to solve problems and by giving him a better understanding of business and the technical aspect of selling.

'77 JAMES D. CROWLEY, after working one year as a sales engineer for the Control Products Division of Johnson Controls, Inc., in Detroit, Michigan, accepted a transfer to Syracuse, New York. Upon accepting the transfer Crowley was promoted to district manager. In this new position he is involved with the sale of H.V.A.C. controls to Carrier Corp., and with the company's continuing commitment to controls for energy conservation.

'77 CALEB H. DIDRIKSEN started a year of traveling last August. He spent a month in Alaska where he worked at temporary jobs. From Alaska Caleb planned to fly to the South Pacific, possibly Guam, and on to Europe, doing temporary work along the way to pay his expenses. Next August Caleb hopes to enroll in the College of Law at Harvard, Yale, Columbia, or Tulane.

'77 MARY R. JANKOUSKY is a marketing representative for the Power Circuit Breaker Division of Westinghouse Electric Corp. in the Pacific Northwest and Canada. Her responsibilities include reading technical specifications and quoting prices, selling the product features of Westinghouse's equipment, and handling questions and problems that arise concerning the equipment. Next fall Mary hopes to enter law school at UCLA, the University of Chicago, or New York University.

'77 MARK A. WHITE, after working in Pittsburgh, Pennsylvania, for a year, has moved to St. Louis to study for an M.B.A. at Washington University. He hopes to receive the degree next December and then work in the energy industry. Mark is presently working part time in computer applications for Arch Mineral Corporation.

'78 JAMES W. ACHENBACH is employed as an engineer by Roberts & Schaefer Co. in Chicago.

'78 JOHN WILLIAM "BILL" DAY is a market analyst for alternate energy forms at Westinghouse Electric Corp. in Pennsylvania. Bill researches the marketability and economics of solar, geothermal, wind, magnetohydrodynamic, and photovoltaic energy systems.

'78 DANIEL J. MENDELSON is an engineer III in the Engineering Professional Development Program at Abbott Laboratories. This is a two-year program that allows Dan to take four different six-month assignments within various divisions of the laboratories. He is assigned to Corporate Industrial Engineering until June, 1979.

'78 SHARON STEFANIK attended Engineering Open House. She is employed by Commonwealth Edison Co., and is presently in Customer Service. She is doing heat loss calculations and consulting on comparative costs of alternate energy sources in manufacturing facilities and large buildings. Sharon is enthusiastic about her work. However, because of her youthful appearance she must work extra hard to establish credibility with her clients.