



# GENERAL ENGINEERING NEWSLETTER

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

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## DEPARTMENT RECEIVES GRANT FROM GENERAL MOTORS

The General Motors Foundation has made a grant of \$47,000 to the Departments of General Engineering and Aeronautical and Astronautical Engineering. With it the departments plan to establish a terminal center to the CYBER 175, which would be used for instruction and research in computer-aided design and computer-aided manufacturing. The present campus facilities have been upgraded to include interactive computer usage with limited interactive computer graphics equipment. However, the demand for these terminals far exceeds their availability. The use of computers in design and production is well established in industry. Acquisition of this terminal center located in the Transportation Building will enable both departments to pursue instruction and research with modern equipment, thereby adequately preparing our students in the computational skills necessary to function competitively in industry.

This center will provide for, among other things, the following uses:

- Interactive data entry, for both numerical and spatial data.
- Preparing in-house data for use in canned packages.
- Arranging data outputs to be in suitable form for use by differing target audiences.
- Comparing canned package abilities and data formats against present and future requirements to determine suitability, compatibility, and expansion possibilities.

## ANNUAL FUND CAMPAIGN

The General Engineering Division of the 1979-80 College of Engineering Annual Fund campaign is making progress. As of March 1 twenty-four of you alumni had contributed a total of \$6285. Your gifts ranged in size from \$5.00 to \$5000 with the median being \$25.00. We appreciate your generosity and welcome all gifts regardless of their size. When making your contribution why not consider giving annually instead of just one time.

Perhaps the rest of you alumni would like to contribute also. You can do so by making out your check to "UIF/UIUC College of Engineering Annual Fund." This will assure that it is tax deductible. To be sure that your gift goes to the General Engineering Development Fund, write "General Engineering" some place on the face of the check. Then mail it to: University of Illinois Foundation, 224 Illini Union, Urbana, Illinois 61801.



PRESENTATION OF AWARDS FROM JAMES F. LINCOLN ARC WELDING FOUNDATION IN 1979 STUDENT ENGINEERING DESIGN COMPETITION. Awards were: second and third places in the structures division and fourth place in the mechanical division. Left to right: Prof. Morris Scheinman, Prof. Jerry S. Dobrovlny, Dean Daniel Drucker, and Prof. Rodney D. Hugelman.

## FACULTY NOTES

Professor JERRY S. DOBROVOLNY had a busy time in January. In addition to performing his usual administrative duties, he attended two professional meetings. January 14 through 17 he was in Atlanta attending the meeting of the Professional Engineers in Education Division of NSPE. On January 29 through February 1, Professor Dobrovlny attended a meeting of the Relations with Industry Division of ASEE in Tucson.

For this spring semester, Dr. OSMAN COSKUNOGLU received a grant of \$2690 from the University Research Board for his current research entitled "Decentralized Control of Large-Scale Water Resources Systems." He was also appointed as a Network Member to the Campus Wide Research Services Office in the University.

As the result of a personal experience, Dr. RODNEY D. HUGELMAN was selected to serve as advisor to the department-sponsored G.E. 242 project, "The Motorcycle as Urban Transportation." A major portion of the study was an analysis of the anatomy of a typical motorcycle accident. Such accidents occur invariably as a result of left turns by autos encroaching upon the motorcycle's right of way and "not seeing the bike." Riding home on his motorcycle late one afternoon last fall, this "classic" accident happened to Dr. Hugelman. He wants to be the first to give his all for the

U. of I., but this is above and beyond the call of duty! Being launched 20 feet through the air gives one an insight into motorcycle safety unobtainable by other means—though not recommended. Seriously, it did lead to a new bike, effective lighting changes with accelerometer controlled pulsed strobes, and headlights pulsing at brain-stem alert frequencies. Such a special experience may lead to fewer "classic" motorcycle accidents for everyone.

Dr. L. D. METZ had a busy fall semester teaching G.E. 222, serving as Co-Chairman of G.E. 242, and advising on one project. In addition, he wrote two papers, one on urban energy consumption of bicycles, and the second involving control performance of humans. This semester Dr. Metz is teaching one of the new departmental courses at the graduate level, G.E. 491, Simulation of Dynamic Systems, as well as E.E. 415, Control System Theory and Design. G.E. 242, with 59 students, is keeping both Dr. Metz and Dr. Hugelmann busy. However, over the Christmas break he found time to ski in Colorado, and reports that no student has yet defeated him in the "Metz Olympics" athletic challenge! Dr. Metz sends a special "Hello" to all of his former G.E. 222 students who may be reading this Newsletter.



DR. PLECK ON SABBATICAL

Dr. MICHAEL PLECK is on a sabbatical leave of absence this semester. He is currently a visiting fellow in the Sibley School of Mechanical and Aerospace Engineering at Cornell University in Ithaca, New York. Since arriving there January 4, Dr. Pleck has been working with an international team of scientists in the field of CAD/CAM. This team is refining, testing, evaluating, and documenting a large Hokkaido University (Japan) computer program TIPS-1. Via user commands, this program can "construct" solids, such as structural or machine parts, in a computer's memory. These digital representatives of solids may be processed further by TIPS-1 to permit various applications. They include drawings, design calculations (e.g., weight, inertia), finite element stress analysis, and automated N/C machining operations.

Dr. Pleck's special interest is in the interface between the data base of the TIPS-1 program (i.e., volume description) and so-called boundary representations (i.e., vertex, edge, surface descriptions). This has special relevance to the proposed ANSI Y-14.26 communication standard on which he has worked, dealing with the digital representation of physical object shapes.

As a side benefit of this activity, Dr. Pleck plans to bring the state-of-the-art program back to Illinois and adapt it to

the proposed GE/AAE CAD/CAM terminal center for undergraduate instruction.

In February, Dr. MICHAEL PLECK received a 1980 Ralph R. Teetor Educational Award at the Society for Automotive Engineers Congress and Exposition in Detroit. The Teetor Award program recognizes outstanding educators in North America and provides them an opportunity to become acquainted with the professional activities of the automotive industry and exchange views with its representatives. During his stay in Detroit, Dr. Pleck learned of the present and planned roles of CAD/CAM at Chrysler, Ford, and General Motors and toured their CAD/CAM facilities. Dr. Pleck is the second member of the G.E. faculty to receive this honor, Dr. Metz having received the award in 1972.



DR. HENRIQUE  
L. M. dos REIS

#### NEW FACULTY

Dr. HENRIQUE L. M. dos REIS is an Assistant Professor of General Engineering who joined the faculty in February, 1980. Prior to coming to the University of Illinois he was a member of the faculty at the Universidade Estadual de Campinas, Brazil, where he taught courses in structural mechanics.

Dr. Reis graduated in Mechanical Engineering at the Universidade de Luanda, Angola, in 1972. Upon completing his undergraduate degree he joined the faculty there, teaching courses in solid mechanics. In 1973, Dr. Reis came to the United States. He received his M.S. and Ph.D. degrees in Mechanical Engineering from Massachusetts Institute of Technology in 1975 and 1978. His master's thesis was on the analysis of interlaminar stresses in laminated composites and his Ph.D. dissertation dealt with dynamic plastic buckling of structures.

Dr. Reis' present research interests are in the general area of dynamic plastic behavior of structures. His current research includes plastic and creep buckling, optimization of structures, and plastic analysis of anisotropic structural elements.

#### A GUIDE TO PATENTS

The new book by David A. Burge '66, *Patent and Trademark Tactics and Practice*, published by Wiley-Interscience, John Wiley & Sons, will prove a useful addition to the reference collection of inventors, engineers, scientists, business people, or anyone else whose duties or interests relate to intellectual property. As an experienced patent lawyer, Dave has identified the fundamental concepts that his clients must understand, and the book has been developed

## I. S. G. E.

### JOHN HOLZ RETURNS



JOHN HOLZ graduated in May, 1976. Since then he has been a product representative and an account representative for IBM's Data Processing Division in St. Louis. Convinced that a Master's Degree is becoming ever more valuable in industry, John has taken an educational leave of absence and returned to participate in the General Engineering Graduate Program in Project Design. He has begun thesis research on "Application of Pattern Recognition Techniques to Firearms Identification," and will graduate in May, 1981. In addition to his own classwork, John is a Teaching Assistant for G.E. 105.



### ROSEMARIE OREHEK HONORED

For the first time since the Ladies Auxiliary of the ISPE established the Grace Wilson Award, a coed in the General Engineering curriculum, ROSEMARIE (ROSIE) OREHEK '80, of Riverside, was named recipient. The award, which includes a certificate and \$100, was set up to recognize an outstanding graduating coed engineer. She is chosen by a committee of Auxiliary members on the basis of her academic average, her participation in college and university activities, her potential for success as an engineer, and a personal interview.

Rosie was on the Dean's List for seven semesters and graduated with a cumulative grade point average of better than 4.5. Having such an excellent record, she was able to join Tau Beta Pi, Gamma Epsilon, Omicron Delta Kappa, and Phi Kappa Phi honoraries. In addition, she was an active member of the Illinois Society of General Engineers, President of both the Society of Women Engineers and Tau Beta Pi, and Executive Forum Vice-Chairman of the Dean's Advisory Committee. In 1977, Rosie was a student panelist at the annual ASEE conference. She started her professional career as a member of the Professional Intern Program of the Weyerhaeuser Company in Washington.

Another year for the Illinois Society of General Engineering comes to a close as we look towards the future. Congratulations should go to our General Engineering Open House Chairperson, April Horne, for the great job she did with open house. Our open lunch forum went well this last year, having presentations on such subjects as "High Speed Boats," by Prof. Hugelmann. The Annual "Strike O'Bryant" Bowling Tournament was won once again by the faculty. But we students will get you yet! Just wait!

Election of officers for next year was held at the meeting on Wednesday, March 19. We also discussed plans for next year. Prof. Davis spoke on his research project which deals with the Illinois Plan for Radiological Accidents.

On March 20, I.S.G.E. and Gamma Epsilon joined forces for an excursion through the Caterpillar plant at Peoria.

As a final note, we would like to thank this year's officers for a fine job. They were MICHAEL JACOBS '81 of Chicago, President; BRIAN GALLEY '80 from Ottawa, Vice President; MITCHELL FEIGER '80 of Wilmette, Treasurer; MARK SCOTT '83 from Blue Mound, Secretary; APRIL HORNE '82 of Rantoul, General Engineering Open House Chairperson; and NICHOLAS BUDD '82 of Lacon and KIRK LANGFORD '81 of Champaign, Engineering Council Representatives.

## ALUMNI NEWS

'31 Dr. HENRY D. CAMINO has moved from northern Illinois to sunny Florida.

'35 THOMAS W. BOHMKER retired in 1971. He spent 31 years with Deere and Company in Marketing and Product Research, 25 of them in the Overseas Division. Mr. Bohmker worked in all continents but spent the most time in Latin America and Europe, living in Belgium and Germany part of the time. Upon retirement he signed up as a volunteer with the International Executive Service Corps. As a result of this action, Mr. and Mrs. Bohmker spent three months last year in Mexico City where he served as an advisor to the Construction Industry. This year they will spend two months in Venezuela where he will be consultant for a small farm equipment importer and manufacturer and then will go to Mexico for another month with the client he served last year. In addition, Mr. Bohmker has been involved with community health and is currently president of the board of the Hammond-Henry District Hospital.

'52 RALPH E. RECKA has moved from New York to Maryland to become General Manager of the Industrial Equipment Division of Westinghouse Electric Corporation.

'55 FRANCIS P. SMITH had an interesting time this past couple of years. He worked in San Antonio on the construction of a concrete-lined drainage canal that was 1350 feet long, 100 feet across between canal hubs, 90 feet across the top of the canal, about 16 to 22 1/2 feet deep from hub level to flow line, and 25 feet wide at the bottom. His responsibilities were to replace any hubs destroyed during excavation, to assure that underbreakage and overbreakage were kept within tolerance, and to assure that all grading and finished concrete were "on the MONEY." Upon completion of the canal Mr. Smith spent several months in Canada and then took off to see the Mayan Ruins.

'56 MYRON J. BERNARD is Vice President, Special Projects and National Accounts of Guarantee Electrical Company. One project that he is presently supervising is the

from that point of view. Specific topics from the U.S. Patent Law and Patent Office Regulations are combined with practical and realistic advice to the reader, covering all phases of the patent system, how to obtain and use a patent, how to protect oneself from loss of rights, and infringement problems. Also to be appreciated are the sections on trademarks, copyrights, trade secrets, and specialty patents. This is a very readable book that contains a wealth of practical information.

H. Streeter



JONATHAN M. HORNER

### JETS ACTIVITIES

The JETS State Office has been expanded with the addition of a full-time JETS State Coordinator. He is Jonathan Horner who took over his duties in October. Jonathan is responsible for the day-to-day activities of JETS, as well as planning and implementing new programs across the state. He is a graduate of the United States Naval Academy; was commissioned in 1964; and rose to the rank of Lieutenant in the field of mine warfare. Upon resigning from the Navy, he attended Georgia Institute of Technology where he received a Bachelor's Degree in Civil Engineering. In 1971, he received a Master of Science Degree in Civil Engineering from the same institution. His engineering employment has included positions as County Road and Buildings Design Engineer, County Director of Public Works, and Transportation Project Engineer for a local consulting firm. Mr. Horner has been a registered Professional Engineer since 1975.

During January and February the State of Illinois JETS Office conducted the annual NEAS test at 35 sites across the state. Over 800 high school students who took the test have learned whether or not they have an aptitude for the study of engineering. Nationwide over 4,000 students took the test.

JETS also conducted the third annual TEAMS contents. More than 3,500 Illinois high school students from over 300 high schools competed. TEAMS (Test of Engineering Aptitude, Mathematics, and Science) is comprised of tests in seven areas: Mathematics, Physics, Biology, Chemistry, Graphics, English, and pocket calculators. The high school teams competed at 25 district centers during the week of February 17-23. The district winners were invited to compete at the University of Illinois on March 3 in order to determine the State winner. Trophies and medallions were awarded the winners at all levels.

Two-week summer programs will again be held during the summer of 1980. MITE (Minority Introduction to Engineering) will have its twelfth program June 22-July 3. JETS will have their nineteenth consecutive program July 6-18. Both of these programs have been extremely successful in helping students who are between their junior and senior years in high school determine their career interests and goals.

JETS Summer Programs are also held at Bradley University in Peoria and at the Chicago Circle Campus of the University of Illinois.



KNIGHTS OF ST. PAT.

Left to right: John T. Linderman, Timothy C. Johnston, and John Michael Winek.

### KNIGHTS OF ST. PAT

Three General Engineering Students were honored for their service to the college and the university by being named Knights of St. Pat at St. Pat's Ball on March 8. They were TIMONTHY C. JOHNSTON '81 from Peoria, JOHN T. LINDERMAN '80 of Danville, and JOHN MICHAEL WINEK '81 from Sheffield.

Tim is a James Scholar and has been on the Dean's List every semester. Currently he is Editor-in-chief of the Technograph. Other activities have included being a speaker for the Engineering Speakers Bureau, participation in intramural sports, acting as an advisor to Junior Achievement of Peoria, plus many more.

John Linderman is also a James Scholar and has been on the Dean's List every semester. After working his way through various committees of Tau Beta Pi, John is president of the honorary this year. In addition, he has been active in the Engineering Speakers Bureau, the College Honors Council, Engineering Toastmasters, and his church. Last June he was named "National Scholar of the Year" in the 1979 American Consulting Engineers Council scholarship program.

John Michael Winek is and has been active in Engineering Council serving first as secretary-treasurer, then as Chairman of Engineering Open House, and now as president. He is a member of Illinois Society of General Engineers, Champaign-Urbana Student Association, Student Government Commission, Interfraternity Council, Atius Activities Honorary, Phi Eta Sigma, Omicron Delta Kappa, and Farm House.

electrical installation for the new Urbana-Champaign Waste Water Treatment facilities.

'56 About a year ago KENNETH A. GABLIN left Tele-dyne after attaining the position of corporate executive for the unit Protective Packaging, Inc. which he founded in 1970. He moved to the Washington, D.C., area just two days prior to the Three Mile Island incident to open an office as a private consultant. The firm, of which he is president, is called Kenneth A. Gablin and Associates. Mr. Gablin's area of specialization has been the design and shipment of hazardous material, including both radioactive and toxic chemicals. He is very active in ASME and recently helped write a book entitled *Nuclear Power Waste Technology* and published by ASME. Currently Mr. Gablin holds ten U.S. patents and some patents on items that are used in Europe.

'57 RALPH I. STEVENS, Professor of Mechanical Engineering at the University of Iowa, Iowa City, recently completed a five-month teaching assignment in Korea. He considered it a wonderful experience but found the Korean students reluctant to take an active part in classroom discussions. Prof. Stevens just finished co-authoring a textbook with Prof. Henry Fuchs of Stanford University.

'60 MARVIN L. MRNKA is associated with Refergy, Inc., a firm which designs, constructs, operates, and finances facilities to burn refuse and provide steam power for industrial, institutional, or governmental consumers.

'62 JERRY L. SNIVELY completed studies for a master's degree in Christian Education at Liberty Baptist Seminary last June. Since then he has accepted the position of Director of Management Information Systems with Railoc Company, Inc. In this position, Jerry is responsible for the entire data processing function of the corporation and reports directly to the company's president.

'66 DAVID A. BURGE is a registered patent attorney and partner with the patent law firm of Burge & Porter Company, L.P.A., in Cleveland, Ohio. On the side, he is Chairman of the Young Lawyers Section of the Bar Association of Greater Cleveland. In addition, Dave has written a book, *Patent and Trademark Tactics and Practice*, which has just been published by John Wiley & Sons, New York.

'68 Since graduation ALTEN (SKIP) F. GRANDT has earned an M.S. in 1969 and a Ph.D. in 1971 from UIUC. Both degrees were in Theoretical and Applied Mechanics. In 1971, Skip left the university to work for the Air Force Materials Laboratory, Wright-Patterson Air Force Base as an Air Force officer on active duty until 1975 and as a civilian with civil service until 1979. His research centered around the fatigue and fracture of aircraft materials. Last August, Skip joined the School of Aeronautics and Astronautics at Purdue University as an associate professor. His duties include research in the area of aircraft structures and materials and teaching. He and his wife Barbara have two children: Jennifer, six years old, and Steven, five years old.

'70 DONALD MARK NEWELL earned his M.B.A. degree from the University of Chicago in 1971. Last August he was promoted to Vice President—Marketing for the Microfilm Products Division of Bell & Howell Company. Don is responsible for all marketing activities in this \$100,000,000 division which sells a variety of specialized information handling systems. He and his wife Sally have three sons, ages seven, five, and two.

'71 After several years spent in the St. Louis area, TERRY A. HARMESON has transferred back to the Urbana office of Clark, Dietz & Associates, Consulting Engineers.

'71 MICHAEL R. KERCHENFAUT has taken a leave of absence from his job as Customer Service Supervisor with FMC in Tupelo, Mississippi. He and his wife Kathleen have moved to Bloomington, Indiana, where he is studying for his M.B.A. degree at Indiana University.

'71 JAMES W. VOEGELE earned his M.B.A. degree from Loyola University in 1976. He became a licensed professional engineer in 1977. Jim is Development Engineering Manager for V. Mueller. He and his wife Kathy were married November 6, 1971. They have two children: son Aaron, six years old, and daughter Michelle, three years old.

'72 In July of 1976, after leaving the U.S. Army, SAMUEL E. ESKRIDGE joined Packard Electric Division of General Motors. His first assignment was as a production engineer in Rubber and Silicone Molding. Last August he was promoted to Supervisor, Miscellaneous Tooling Group, Manufacturing Group of Packard Electric Division after serving as a tooling design engineer with that group since April, 1978. In his new position, Sam supervises a number of engineers responsible for the design and construction of production molds for rubber components and fiber optic lenses; and the design and building of pre-production, or sample, molds for all molded components produced by the Division. In addition, Sam represents Packard Electric Division on the General Motors recruiting team that comes to UIUC. He enjoys his trips back to campus and is especially pleased by the strong interest the General Engineering students show in General Motors.

'72 By 1975, LOUIS JOSEPH MANCINI earned M.S. and Ph.D. degrees from Stanford University. He is presently supervisor of an operations research group in the computer services department of Standard Oil Company of California. Lou says, "Hi," to all his former classmates.

'73 PAUL NEWHAGEN received the M.B.A. degree from the University of Santa Clara last November. Paul is continuing with his same employer, Fairchild Semiconductor, but in a new position, Automotive Division Controller, which keeps him very busy. He is still enjoying unmarried bliss. Paul has purchased a hang glider and a banjo. With school finally over Paul was looking forward to the ski season. He still goes backpacking in Yosemite and hopes to complete a two-week, 200-mile backpack trip along the John Muir Trail in the Sierra Nevada Mountains. He says, "Hi," to all his former G.E. classmates.

'73 RALPH J. WAGNER received an M.S. in Civil Engineering from UIUC and the M.B.A. from SUNY at Buffalo. Effective November 1, 1979, Ralph accepted promotion to Account Manager with transfer to the Carbon Products Division of Union Carbide Corporation. He invites Illini to stop by or give him a call if they are ever in the Akron-Canton area of Ohio.

'73 THOMAS RICHARD ZIECH has a new position as Senior Analyst in the Operations Research Department of Inland Steel Company.

'74 STANLEY G. GOTSCHALL is a field engineer for Caterpillar Tractor. 1979 was an eventful year for Stan and his wife Kathy. Their daughter Megan Ellen was born on July 31st and Stan obtained his professional engineer's license this past year.

'74 NANCY E. JAKSE received her M.B.A. degree from the University of Chicago in December, 1978.

'74 On February 1 ELBERT (BERT) EUGENE WILLIAMS, Jr., joined the Detroit sales office of Shakeproof Division, Illinois Tool Works, as New Product Development Manager. In this position, Bert will act as liaison between the sales force and the plant engineering department, and

# ALUMNI NEWS

will invent and develop new fasteners to meet the needs of the new generation of cars being designed. Incidentally, another patent relating to a carbide tipped drill/fastener installation tool combination has been issued under Bert's name.

'75 As a staff engineer for the Linde Division of Union Carbide Corporation ALAN R. BELAIR is lead engineer for mechanical construction design of gas plants typically producing gaseous and cryogenic products of O<sub>2</sub>, N<sub>2</sub>, and Ar.

'75 After earning his M.S. in Environmental Engineering from UIUC, TIMOTHY J. SMITH spent three years at the Chicago office of EPA. He is now in Washington, D.C., as a technical analyst for the National Commission on Air Quality.

'76 DEAN E. ANDERSON has transferred from U.S. Steel South Works Engineering Department to the Engineering Department at U.S. Steel Supply Division General Offices in Chicago. He serves as a project engineer for the Division's Steel Service Centers and Container Products Plants which are located nationwide.

'76 MICHAEL J. CARDONI is Supervisor of the Product Analysis Information and Distribution (P.A.I.D.) Center at Cummins Engine Company. The Center, built according to Mike's design, was just recently completed. It serves as the computer center for all manufacturing quality information for the Cummins Engine Plant in Columbus, Indiana. On December 23, Mike married Gloria June Gadbury, Music '77. Gloria is an elementary music teacher in Columbus.

'76 R. PATRICK METZ worked two years for the Illinois Environmental Protection Agency as a Project Manager in the Grant's Administration Section of Water Pollution Control. In April, 1978, he transferred to the Illinois Department of Public Health where he was recently promoted to Supervisor of the Illinois Modular Housing Program. Pat was married to June Blalock in June, 1976. They have two sons; one two years old, the other six months.

'76 LARRY A. MUNSON entered U.S. Air Force Officer Training School at Lackland Air Force Base on December 4, 1979. He graduated and received his commission on March 10, 1980. On April 7, 1980, Larry entered navigator training at Mather Air Force Base in California.

'77 CALEB DIDRIKSEN III is enrolled in law school at Tulane University. He finds the work load there about equal to what it was in engineering. Caleb sold his house in Ohio and bought into a "five-plex" in New Orleans.

'77 DANIEL N. DONAHOE received his M.S. in Mechanical Engineering from UIUC last May. He is now a senior associate engineer with Lockheed Missiles and Space Company. In the evenings, Dan attends classes at the University of Santa Clara to earn the M.B.A. degree.

'77 MARY R. JANKOUSKY is a first-year student in the Boston University School of Law.

'77 JUDITH V. JENNINGS was married to Mark Swinnerton on September 29, 1979. She transferred from Illinois Bell Telephone Company to Mountain Bell Telephone Company effective October 29. The Swinnertons spent most of October backpacking, mountain climbing, and enjoying the country and scenery in Utah, New Mexico, Arizona, and California.

'77 THOMAS S. ZYCH went to work with the Trane Company upon graduation. Since completing a six-month training program he has spent most of his time in the Heavy Refrigeration Department. This department controls

Trane's product lines of centrifugal and absorption water chillers. Tom's responsibilities include the profitability, technical marketing, and application consultation for the Centrifugal Water Chiller product line, i.e., Trane "Centravacs." In January of this year, he presented a discussion on "Free Cooling Water Chillers" at the national ASHRAE convention in Los Angeles. In the past two years, Tom has spoken as a representative of Trane Company at various affairs and found these presentations challenging and rewarding. In addition, he has been responsible for devising the marketing plan for a new energy conserving control for centrifugal chillers which Trane will announce in 1980.

'78 JAMES W. ACHENBACH joined the Field Systems Department of Nalco Chemical Company in April, 1979, as a project engineer. As such he has been involved in the design and application of chemical feeding equipment in many areas of industry. Jim has also been responsible for the design and installation of over thirty coal freeze protection systems in coal mines, power plants, and blending stations in the U.S. These systems are used to spray a chemical onto coal as it is being loaded into rail cars. The chemical protects the coal from freezing as it is in transit. Last July 21st, Jim was married to Bernadette M. Frieh '80, an electrical engineer at UIUC who is completing her undergraduate degree in engineering at UICC. Jim plans to start studying for the M.S. degree in Environmental Engineering at IIT this year.

'78 MARK E. DOWD is Damage Control Assistant (DGA) on board the USS Berkeley cruising in the scenic Gulf of Oman off the coast of Iran.

'78 On July 14, 1979, GEORGE W. FLATHERS II and Jennifer N. Walker, Education '79, were married. George is presently studying for his M.S. degree in Industrial Engineering at Ohio State University and hopes to complete it this August. He is working as a research associate on a NASA sponsored project concerned with pilot responses to critical in-flight events. In his graduate training, George is interested in human factors, manual control theory, and automatic control theory in aviation.

'78 DANIEL J. HONEMAN is a junior engineer with Economy Mechanical Industries. The company is a large mechanical contractor that has done work on several buildings in downtown Chicago, including the heating and fire protection of the Sears Tower and the plumbing in the Standard Oil Building. Dan's work is in plumbing and HVAC design and cost estimating.

'79 ANTHONY BONASERA is working as a systems equipment engineer for Western Electric Company.

'79 As a design engineer of new products with Licon Division, Illinois Tool Works, Inc., TODD C. GREEN is responsible for the development and design of new electrical switch products.

'79 MICHAEL R. HUBER is work as a product engineer with John Deere & Company.

'79 SUE ELLEN KLECKNER is a manufacturing engineer with IBM in the new plant that opened just last October in Charlotte. This plant is where automatic bank tellers are made. Sue finds it fun to use the one where she banks and "get real money from it."

'79 THOMAS E. PARKER is employed at the John Deere & Company plant in Muscatine. As he gains experience in his job, Tom finds the work more and more challenging.