GENERAL ENGINEERING NEWSLETTER

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

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Grace Wilson

Louis Wozniak

FACULTY ADVANCEMENT

GRACE WILSON has recently been promoted to Professor. She joined the General Engineering Department in 1946 as an instructor, was elevated to Assistant Professor in 1955, and Associate Professor in 1961. She now teaches classes in Engineering Graphics and is sponsor for the Society of Women Engineers.

Dr. LOUIS WOZNIAK has been named Associate Professor. Lou joined the General Engineering Department in 1966 as an instructor. After receiving his Ph.D. he was promoted to Assistant Professor in 1967. He now teaches an honors section of Engineering Graphics, the design aspects of two other Engineering Graphics sections, and is a member of the G.E. 242 senior design faculty team. Lou is also active as a consultant to Woodward Governor Company of Rockford, Illinois. His special interests include feedback and control systems, and computer-simulation contributions to design methods.

GOLDEN ANNIVERSARY

The G.E. Constituent Alumni Association is pleased with the good response from more than 40 old-timers who were interested enough to send the Department congratulations on its fiftieth year of instruction.

INDUSTRY SUPPORT OF UNDERGRADUATE ENGINEERING DESIGN: DESIGN CONFERENCE AND CONTINUING PROJECTS

On June 1, 1972, the Department of General Engineering sponsored a conference with the theme, "Providing an Industry Design Experience for the Undergraduate Engineer: New Approaches." The meeting was planned to acquaint engineering design leaders in Illinois and nationally with activities in the Department. In the past ten years, these had been supported by Ford Foundation Grant for Engineering Design Education.

The conference was primarily, then, a summary of our design activity over the last decade, but had the specific additional purpose of projecting the activity and inviting industry cooperation in the years ahead. In particular, it underlines the need for greater industry support of design activity as logical consequence of the phasing out of the Ford Foundation Grant.

Response to the Department invitation was excellent: 42 industry representatives from Illinois attended, as well as several from companies located in Wisconsin, Michigan, Ohio, Indiana, and New York.

As a direct result of the symposium, five companies began immediate discussions on sponsoring projects for the fall semester. In addition, other companies are initiating or planning cooperative projects for later terms.

Six investigations are presently active in the 242 senior design course. Sponsors include Clark Equipment Company of Cassapolis, Michigan; Beloit Corporation of Beloit, Wisconsin (two projects); Link Belt Division of FMC in Indianapolis; Mark Twain Marine of West Frankfort, Illinois, and Woodward Governor of Rockford, Illinois.

It is particularly gratifying that three of the sponsoring companies are from outside the state of Illinois and have chosen the Department of General Engineering here in competition with their own state institutions. Initial responses to the projects by both students and sponsors indicate that this is a highly successful endeavor. Especially, such cooperative research provides an unusual opportunity for close interaction and cooperation between University and industry to the mutual benefit of both.

METZ CO AUTHOR OF TEXT

Drs. L. DANIEL METZ and Richard E. Klein (General Engineering and Mechanical and Industrial Engineering, respectively) have written a book introducing freshmen to engineering. Entitled "Man and the Technological Society," the book is being published by Prentice-Hall, Inc., and is to be available early next spring.

In non-mathematical terms, the book treats various ways in which engineers examine and deal with problems. Typical chapters include Statics vs. Dynamics, Decision-Making, Feedback, Energy, Optimization, and Modeling. The book is intended for use in freshman-level courses (such as the newly revised version of G.E. 103), as well as in secondary schools and even by upper-level college or graduate students. It provides a unified view of the way in which today's and tomorrow's engineers classify and meet real-world needs.

Many of the topics in the Metz/Klein book have been recommended by the Curtis Committee on the Engineering Curriculum in the First Two Years, and the book has already been experimentally used in high-school classes in Iowa.

METZ ON SUMMER FACULTY AT STANFORD

Dr. L. DANIEL METZ spent the summer at Stanford University, Palo Alto, California, as a Fellow of the National Aeronautics and Space Administration and the American Society for Engineering Education. He was part of the NASA/ASEE Summer Faculty Fellowship Program which invited eighteen faculty members from institutions across the United States to study artificial production of carbohydrates for food.

Specific task of the group was determination of possible methods (both enzymatic and chemical) which could be used in a "food factory." Approaches to the problem emphasized systems engineering and took into account not only dietary needs of the human body but also preferential eating habits, social customs and taboos, and the like. Eventually, the group selected three processes which appeared to have future potential for food production, both in terms of continuous supply and as possible "emergency" sources to meet unusual shortages.

Professor Metz's part in the project involved computer simulation of enzymatic processes involved. Extensive use was made of the computing facilities at NASA/Ames Research Center, Moffett Field, California. Professor Metz was also able to visit ILLIAC IV at NASA/Ames, and to talk with some of the personnel involved in its operation.

In conjunction with his professional duties at NASA/Ames, Professor Metz and family were able to see San Francisco, Monterey Bay, the California wine-making district, and Sausalito. He reports that California, particularly the San Francisco Bay area, is interesting though crowded. He is glad to return to Champaign-Urbana.

L. Daniel Metz

Ronald L. Ruhl

DESIGNS FOR CRIMINAL JUSTICE PLANNING FACILITIES AND ARCHITECTURE

Dr. ROLAND L. RUHL is continuing his joint-appointment status with the National Clearinghouse for Criminal Justice Planning and Architecture, serving on a part-time capacity during the summer months and with a 50% appointment in fall semester time as an assistant research professor of architecture. In conjunction with Dr. Richard E. DeVor and Dr. Gary Hogg of the Department of Mechanical and Industrial Engineering, and with the assistance of several graduate students, Rolly is doing modeling and simulation studies.

Among current projects under investigation are a review and synthesis of simulation activity in the criminal justice system; gaming for judges and court administrators in quantitative methods of court scheduling; and development of a new computer language entitled GNS (Generalized Network Simulator) to make possible more powerful, accurate and successful simulation of the criminal justice system.

Rolly has recently been appointed sub-chairman for the Criminal Justice Modeling and Simulation Sub-Session of the Sixth International Conference on Systems Sciences to be held in Hawaii in January. One paper to be presented, entitled "Simulation of a Regional Correctional Facility for Southern Illinois" is a direct outgrowth of work done by Dr. Ruhl and Mr. Fred Fritz, a June graduate of the Department of General Engineering.

WOZNIAK CONSULTANT IN ROCKFORD

Again this summer, Dr. Louis Wozniak engaged in research and design activities for the Woodward Governor Company in Rockford, Illinois. During this time Lou worked on the development of an electric actuator for control of fuel flow to gas, gasoline, and Diesel engines. A working model of a solenoid with spring return actuator was completed. Lou also carried out a stability analysis for three proposed additional turbine units for the Grand Coulee site. He continues with research in system modeling and analysis via computer simulation.

STUDENT ACHIEVEMENTS

FRESHMEN WIN LINCOLN DESIGN PRIZE

James D'Orazio, Scott Jeffrey, and David Robbins have won the second place James F. Lincoln National Engineering Student Design Award for Undergraduates in the Manufactured Products category. In addition to the honor, the three shared $1000 and the Department of General Engineering has received $300 to assist in achieving its educational objectives. A plaque commemorating the award has also been received.

This is the fourth time that students of the Department have won prizes in the past five years in this national contest. In previous years entries have come from the senior project design course, G.E. 242. Presumably most, if not all, of the nation-wide competition has come from upper-class design courses. What is unusual in this case is that D'Orazio, Jeffrey, and Robbins were freshmen last spring when they sent in their entry. As a project in G.E. 104, Design Methodology, they had developed an improved braking system for paraplegic wheelchairs, had built a working model, and tested it at and with the active cooperation of the University Rehabilitation Center.

Awards in the Lincoln contest are made by a jury of engineering educators, using the following five criteria:

Originality or ingenuity of the solution

Feasibility of the solution proposed

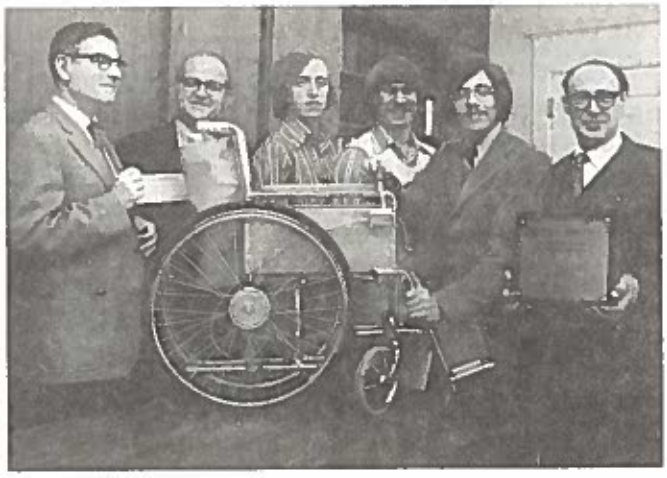
Results achieved or expected in product performance or cost

Engineering competence indicated in the solution proposed

Clarity of the report

G.E. 104 has been taught during the past three years as an introduction to the methodology of project design, emphasizing teamwork, creative problem-solving by group brainstorming techniques, and effective communication of research development results through both written and oral reports. At the beginning of the semester each student submits a project proposal. After hearing brief oral presentations of all projects, class members then vote to select the best third of the proposals, and form teams of three students each to carry out the final designs and reporting.

Last Spring, two sections of G.E. 104 were combined to broaden opportunities for project scope. One of these teams won the award. Professors H.J. Sprengel and J.P. Hipskind were faculty advisors for this combined two-section group, and visiting Professor R.L. Trent also assisted in guiding the group activities.



Wheelchair brake receives recognition.

Left to right, Dean Drucker presents award check to Professor Dobrovolny; team members Robbins, Jeffrey, and D'Orazio demonstrate brake; Professor Sprengel holds plaque.

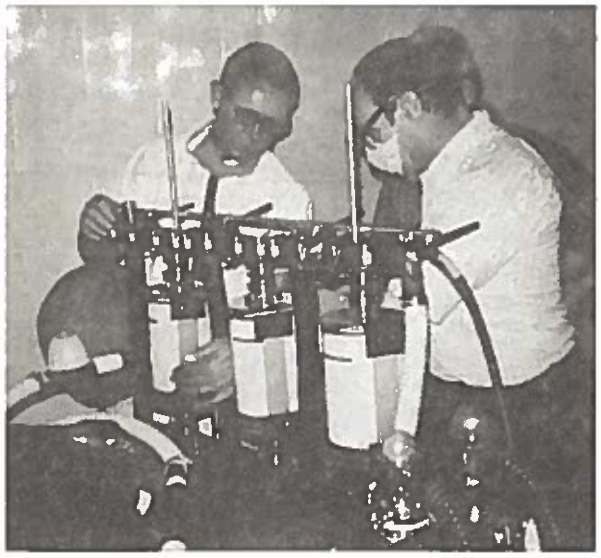
MAINTENANCE-CONTROL PROJECT WITH CHRYSLER CORPORATION

As a result of the first annual "Meeting with Industry" on June 1, a summer project was started at the Belvidere Assembly Plant of the Chrysler Corporation, Belvidere, Illinois. Plans are to develop and implement Computerized Maintenance Management Systems during the next two years for the plant.

To define the problem, Daniel M. Burke, who had completed his junior year, was employed at Chrysler full-time in the maintenance department for the summer. His duties included dispatching routine and emergency maintenance teams, keeping records, and helping develop job instructions. In this way he had first-hand contact with and knowledge of present maintenance operations. He also gathered data and interviewed plant personnel concerned with maintenance. His object was to get input information for the proposed computer-based maintenance plan. This would sort out jobs, taking into account priority requirements, skills needed, and other factors, and provide a daily print-out of specific job assignments.

A plan of this type has been developed by visiting Professor Robert L. Trent, with the Army Corps of Engineers Champaign-based Construction Engineering Research Laboratory, for use by complex organizations such as missile systems and hospitals operated by the Veterans' Administration. The Chrysler application of such program in industry, however, will be the first of its kind and its development is encouraged by the Corps.

This fall Dan Burke has been joined by two other senior students, Tom Koehler and Bob Novaria, in a special projects course, G.E. 393. Together they are now as a team developing the first edition of the computer program.



The award-winning G.E. 242 anesthesia machine in use on a large animal.

OUTSTANDING ACHIEVEMENT AWARDS

Winners of four G.E. Department prizes were announced at the department banquet on Thursday, May 4.

LAWRENCE W. HINDLE, '72, of Earlville and JOHN M. MUNSON, '72, Mendota, jointly received the design award for their "Anesthesia Machine for Large Animals." For "outstanding excellence in development during 1971 of a creative solution for a complex original engineering problem," each man received a certificate and check for $25.00.

AWARD IN JUNIOR YEAR

The Randolph P. Hoelscher Award went to ROBERT J. NOVARIA, '73, of Green Bay, Wisconsin, as the junior in the department who had "achieved exceptional scholarship and leadership." He received a certificate and $75.00.

HIGHEST SCHOLARSHIP BY SENIOR

LOUIS J. MANCINI, '72, Chicago, was selected as the "outstanding scholar in General Engineering" for the Edward S. Fraser Award. This included a plaque and $100.00.

SENIOR CHOSEN BY FELLOW CLASSMATES.

FRANK J. FRONCZAK, Jr., '72, Chicago, received a plaque and $100.00 representing the H.L. Marcus—L.P. Phillips Award. Frank was selected for this honor by other members of the senior class. Bases of the evaluation were character and general attitude toward his fellows, scholarship, and excellence in extra-curricular activities.

CONRY AT INTERNATIONAL SYMPOSIUM

Dr. THOMAS F. CONRY presented a paper at the recent San Francisco IFTOMM International Symposium on Gearing and Transmission. His title was "A Mathematical Programming Technique for Evaluation of Load Distribution and Optimal Modifications for Gear Systems." At the conference, Tom also served as Session Chairman for Gear Dynamics discussions.

G.E. LEADS IN COEDS, TOO

More undergraduate women registered in the College of Engineering this September than ever before—a total of 77 all curricula and all classes. Included are five off-campus students, four on co-op assignments and one on exchange status attending classes in Munich, Germany.

For coeds, the most popular curriculum is General Engineering, as twenty women have chosen it, including the exchange student and one of those on co-op. Popularity of General Engineering curriculum is also true among freshman women, having won 12 of the 34 first-year coeds.

The three next most popular curricula are Computer Science with 12 women enrolled, Civil with 10, and Ceramic with nine. Eighteen of the 20 General Engineering coeds come from the northern half of Illinois, the other two giving their home states as Connecticut and Indiana.

SIDELIGHTS ON SOME G.E. UPPERCLASS

KATHRYN ANN DAVIS, '74, Avon, plays piano and attends events at Krannert such as plays and popular concerts. Kathy enjoys knitting and crocheting.

LAURA LYNN JUNAS, '75, is a native of Connecticut. She participates in sports, being especially proficient in fencing.

DEBRA S. ROMACK, '74, Danville, enjoys knitting, primarily afghans. In fine arts her main interest is musicals. Debra is a gymnast with particular emphasis on the uneven parallel bars.

DIANE DEMARCO, '74, Morrison, is a co-op student, working this fall with NASA at Edwards AFB, California.

NANCY E. JAKSE, '74, La Salle, is now benefiting from her study of the German language. She is doing her Junior year abroad at the Technical University in Munich, Germany.

TWO G.E. STUDENTS WORK WITH FORD

General Engineering seniors ROBERT B. BURNS, Jr., Carmi, and PATRICK L. DAUM, Joliet, on recommendation of Dr. L. DANIEL METZ, spent the summer working with Ford Motor Company in Dearborn. Bob was assigned to a project on exhaust noise suppression and Pat studied wheel shimmy in a MacPherson front suspension system. Both reported a most enjoyable and profitable experience, both technically and financially. They heartily recommend this kind of employment to other students. Ford, for its part, was highly enthusiastic and would like perhaps four G.E.'s for next summer. In addition, there now exists the distinct possibility that Ford will sponsor G.E. 242 projects next semester.

Both men were under sponsorship of Mr. Kenneth Cunningham, Jr., of Ford's Car Research Department. Professor Metz had worked at the Company's Research and Engineering Center before coming to Illinois.

SUMMER PROGRAMS FOR HIGH SCHOOL STUDENTS

This summer, as it has for a number of years, the Department coordinated three different programs for high-ability high school students.

NSF

Professor Dobrovolny was director of the thirteenth National Science Foundation Summer Science Training Program. This year's students represented seven states and the Canal Zone, in addition to Illinois. Participants were on campus for six weeks and were involved in laboratories, lectures, demonstrations, and other academic activities. They were in class and laboratory an average of 9 hours a day and still managed a full schedule of extracurricular activities.

JETS

The Junior Engineering Technical Society conducted their eleventh two-week summer program for 35 students. The JETS follow a schedule similar to that of the NSF group.

INNER-CITY PROGRAM

The Fourth Inner-City Engineering Orientation program was held this summer for 25 students from the Chicago and East St. Louis areas. These students participate in a program which attempts to acquaint them with and attract them to careers in engineering and science. Results from previous programs indicate that this effort has been highly successful.

Working in all of the programs from the Department were Professors GORDON E. MARTIN, DAVID C. O'BRYANT, THOMAS F. CONRY, plus John Biller from Aeronautical and Astronautical Engineering.

"PROJECT PEORIA" ESTABLISHED

Through the cooperation of industries and educational organizations, members of technical professions in the Peoria, Illinois, area are being offered a series of eight monthly seminars. These agencies—Bradley University, Illinois Central College, Caterpillar Tractor Company, Illinois Society of Professional Engineers, and the University of Illinois at Urbana-Champaign—are supplying speakers as well as steering committee members and arrangements.

Purpose of the series is to provide continuing education for such topics as product liability, computer usage, and management effectiveness. Professor BERNT O. LARSON has been serving on the steering committee for the past eighteen months, and Dr. HARRISON STREETER will be one of the speakers next spring.

An attendance of 150 at the second session this fall is indicative of the enthusiastic acceptance of the program by Peoria area personnel. Interested persons can participate by contacting the College of Continuing Education, Bradley University, Peoria, Illinois 61606.

SCHOLARSHIP RECIPIENTS

DUANE A. STEPHENS, '76, from Forrest holds the G.E. $500 Scholarship for 1972-73. This grant is given to an entering freshman for one year on the basis of financial need, high school scholarship, and desire to study General Engineering. Duane ranked 5th in his senior class of 49 at Forrest-Strawn-Wing High School.

LENARD JOSEPH DUCHNOWSKI, '74, Pekin, a transfer from U.S. Air Academy last January, holds a George M. Moffett Scholarship for this year. The stipend, which varies in size, is paid by the Whitehall Foundation directly to the school the recipient is attending. The money is then used to help defray tuition, buy books, and provide board and room. At the end of the year, a board from the Foundation will review the recipient's personal standards and scholastic progress, and the scholarship may then be extended.

ISGE STUDENT CHAPTER

ISGE began the 1972-73 school year with election of officers: President, KARL J. SCHAULIN, '73, Gardner; Vice President, MICHAEL R. SCHOLTES, '73, Joliet; Secretary, GENE HONDA, '76, Chicago; Treasurer, JAMES J. SCHLEMBACH, '75, Springfield; Engineering Council Representatives, DANIEL M. BURKE, '73, Mattoon, and JAMES W. REDLICH, '74, Winnetka.

With an excellent turnout of students and faculty at the first meeting, everyone is very enthusiastic about the coming year. Plans are being made for future meetings, and some very good ideas have been discussed. Arrangements have been made to have a meeting with the Society of Women Engineers to hear Professor Heinz von Foerster speak on the changing responsibilities of engineers. ISGE has also been sure to include on its agenda the annual baseball game with its rival group, the faculty!!

G.E.'s ACTIVE IN ENGINEERING COUNCIL AND COLLEGE STUDENT ADMINISTRATION

General Engineering students are again participating in both student and administrative activities of the College of Engineering. On Engineering Council, JOSEPH J. SARMIENTO '74, of Olympia Fields, is President and KARL J. SCHAULIN '73, from Gardner, is Administrative Vice President. Three G.E.'s are serving on college committees: KATHRYN A. DAVIS '74, Avon, on the College Honors Council; GARY M. KANTNER '73, Mahomet, on the Co-op Advisory Committee, and DAVID H. SMITH '75, Wyomissing, Pennsylvania, on the 1972-73 Student Advisory Committee.

A General Engineering student was among seniors honored by the Illini Union Student Activities at the "100 banquet" last May. LARRY R. DYKSTRA '73, of Rockford, was recognized for winning his second Big Ten championship in the discus throw.

GENERAL ENGINEERING ALUMNI LEADERS

Officers of the General Engineering Alumni Chapter of the University of Illinois Alumni Association this year represent broad range of backgrounds, experience, and vocations.

RAY J. DEPAUW - President

Ray received his BSGE in 1966. Married, with four daughters, Ray is presently a Senior Process Engineer for Mobil Plastics Division in Jacksonville, Illinois. In this capacity he has charge of all engineering and development for a single product line, including cost and quality control as well as implementation of technical improvements. Ray became a registered Professional Engineer in 1970. He can be reached during the day at 217- 243-3311.

ARNOLD B. BANDSTRA - Vice President

Arny received his degree in 1968 and is currently working on an MS in Environmental Engineering at the University of Illinois. He is married, has one son, and is currently employed as a Sanitary Engineer with Daily & Associates, a Champaign consulting firm. He became a registered Professional Engineer this year, and works primarily in the area of municipal waste-water control. He can be reached during the day at 217-352-4169.

RICHARD COLVER - Secretary

Dick received his BSGE in 1967 and his MBA in 1970. He is currently working toward a Ph.D. in Operations Research at the University of Illinois. He is married and has one son. Employed as a General Engineer for the U.S. Army Construction Engineering Research Laboratory in Champaign, he directs development of several Army-wide maintenance-management systems. During business hours, Dick can be reached at 217-352-6511.

SAMUEL L. LEEPER - Treasurer

A 1963 graduate of the Department, Sam also received his MBA from Indiana University in 1968. He is married and has two sons. Currently a Vice-President for Commercial Loans with the Champaign National Bank, he can be reached during the day at 217-359-3931.

HAVE DEGREE – NOW WORKING

Do you ever wonder where the General Engineering graduate goes? During 1972 the Department produced 58 alumni; 29 in February, 24 in June, and 5 in August.

Consulting offices such as Sargent & Lundy and Mark Lovejoy & Associates took some of our men. Industries included Babcock & Wilcox, Ceco Corporation, Inland Steel, Square D Company, Uarco, Westinghouse, Firestone, E.B. Kaiser Co., Industrial Nucleonics and Lamp Construction Co. Graduate school was the next step for a dozen G.E.'s including Harvard and Stanford, as well as Urbana. Other alums went to medical school, VISTA, military service, and broadening travel before "settling down."

PLEASE! WHERE ARE THESE ALUMNI NOW?

Your help is needed to supply present whereabouts and mailing addresses for some of your friends and classmates. The spring newsletter sent them was returned from the town marked "no known forwarding address." Can you do something for us—and them?

Terry L. Bradley	'67	Watertown, Maine
Charles A. Brown	'52	Clearwater, Florida
Jack D. Brown	'66	Battle Creek, Michigan
Larry J. Butts	'71	Champaign, Illinois
Robert J. Chiaffredo	'70	Riverdale, Georgia
Sandor H. Cole	'50	San Diego, California
Michael D. Dinitz	'67	Des Plaines, Illinois
Harold C. Ericson	'58	Costa Mesa, California
Norman K. Hunt	'66	Downers Grove, Illinois
Andrew W. Kargacos	'69	Secore, Pennsylvania
Thomas O. Knight	'66	Springfield, Illinois
Dennis E. Lafferty	'66	Golden, Colorado
Dale Maibaum	'59	Springdale, Ohio
Billy E. Marr	'50	Oepoe Bay, Oregon
James D. Mitchell	'61	Elnora, New York
Carl N. Roegner	'65	Savoy, Texas
James R. Sachtschale	'64	Woodacre, California
Bruce L. Samlan	'66	Beloit, Wisconsin
David P. Schneider	'72	New Orleans, Louisiana
Billy G. Turner	'62	Rowe, Georgia
Robert A. Zakes	'64	New Cumberland, Pennsylvania

FORMER FACULTY LOCATED–

Although some of the alumni seem temporarily "lost," these are a few former faculty members (who earned their advanced degree while teaching in G.E.) whose whereabouts were recently determined:

RONALD J. PLACEK—with G.E. in Schenectady
MONTE L. PHILLIPS—teaching at the University of North Dakota
CHARLES W. STONE—now in the Air Force at Dayton

TRUST FUND GROWTH

Contributions to our General Engineering Trust Fund have been coming in frequently during this year. A total of approximately $750 has been received from both alumni and friends, especially friends. One of the gifts came from an industry which has agreed to match contributions by an employee who is likewise a General Engineering graduate.

All alumni should be aware that severe budgetary restrictions at the University level in recent months has caused a reduction of 3.5 full-time-equivalent staff members in the Department. A parallel reduction has been applied to the Department's materials and expense allotments. Therefore the need for non-university funds to continue development in engineering design and staff recruitment is doubly needed. Contributions should be sent to the General Engineering Trust Fund, University Foundation, 224 Illini Union, Urbana 61801.

DOBROVOLNY ACTIVE IN TECHNICAL ACCREDITATION

In conjunction with his work with the National Advisory Council on Vocational Education in the U.S. Office of Education, Professor JERRY S. DOBROVOLNY was asked by the Associate Commissioner of the Bureau of Adult and Vocational and Technical Education to represent him and the National Advisory Council on Vocational Education on a visit to a field training detachment at Upper Heyford, near London, England. Jerry assisted the Southern Association of Accreditation at the installation. Later in July he flew to Wichita Falls, Texas to serve on the team evaluating the 3750th Technical School at Sheppard Field. In August, he also joined the team for accreditation of the Keesler Air Force Base in Biloxi, Mississippi.

In April, Professor Dobrovolny attended a briefing at Randolph Field where the newly established Community College of the Air Force is located. The Air Force is in the process of interpreting all of their training programs in such a way that the information can be put on a transcript that will go with the airman as he leaves the service for civilian education and training. In January, Jerry will be visiting Lowry Air Force Base for the North Central Association, and soon afterward will return to assist with accreditation of Chanute Technical Training School.

Jerry has been elected to the Executive Committee of the State Advisory Council on Vocational Education, and has been appointed Chairman of the Research Committee.

HANNON RECEIVES NSF GRANT

Dr. BRUCE M. HANNON, Assistant Professor of General Engineering, and Staff Member of the Center for Advanced Computation, has received a $312,000 two-year grant from the National Science Foundation to do research on uses of energy in the United States. Essentially the research is aimed at developing methods of determining energy costs of goods and services provided consumers.

A major tool will be development and inversion of large energy matrices which will allow a suitable allocation of each type of energy to each type of good or service. These matrices will then be applied to specific services and their alternatives.

Other investigations into the energy cost of other specific services is also being conducted by the group now assembled under the grant.

IN MEMORIAM

Those who remember Professor Clifford H. Springer will be sorry to hear of the death of Mrs. Springer. Since he retired, they have been making their home at 720 Overiver Drive, North Fort Myers FL 33903.

Jerry S. Dobrovolny

Michael H. Pleck

PLECK PARTICIPATES IN THREE MEETINGS

Dr. MICHAEL H. PLECK presented a paper to the DECUS (Digital Equipment Corporation Users' Society) Spring Symposium held at the Parker House, Boston, in May. The paper, "Program LP: A Line Printer Emulator for the Gould 4800-11," written jointly with Dr. ROLAND L. RUHL and graduate assistant Mitchell Clifton, has also been accepted for the Conference Proceedings. LP is the outgrowth of systems development on the Department's IGCS (Illinois Graphics Computing System) Facility. The program permits the raster-format, electrostatic plotter to generate characters and emulate conventional line printers. Although the plotter is intended mainly for use as a graphic device in conjunction with the Department's PDP-11/20 minicomputer, Program LP produces an average of 3000 text lines per minute, nearly three times the rate of conventional high-speed impact printers.

STANDARDS SUBCOMMITTEE

Mike also participated in the second general session of the recently formed ANSI Y – 14.26 subcommittee held at McDonnell Douglas in St. Louis. The subcommittee is charged with establishing standards for the application of computer graphics to engineering drawings. One of only three educators appointed, Mike has devoted his efforts to producing an educational brochure, "Computer Graphics for Engineering Drawings Comes of Age" and developing industry standards in "Geometric Entity Descriptions for Computer Graphics" and "Mathematical and Logical Computer Processing Procedures for Geometric Entities."

ASEE CONVENTION

Finally, he attended the ASEE Annual Convention in Lubbock, Texas, last June and participated in the first ASEE Computer Graphics Summer School. Mike was one of seven experts in the field selected to staff the two-day Symposium. His main presentation, "Computer Graphics Hardware: An Overview," was the summary lecture for the overflow group of 80 attendees from the United States and Canada.

ALUMNI NEWS

'50 GEORGE W. MADDOX has been promoted to marketing manager of the Power Systems Division, Bruce G.M. Diesel in Rocky Mount, N.C.

'56 LAURANCE S. STAPLES, Jr., was recently advanced to Sales Manager for Havens Cooling Towers in Kansas City.

'58 LLOYD K. HEISLER has been with Caterpillar Tractor Co., Peoria, for the last 15 years, and has been named Dealer Parts Operations Consultant.

'58 JON PEACY is currently Manager Air Pollution Control Department with Beling Engineering Consultants, Moline, Ill. He says he is having a great time as a member of the Quad-Cities Bicycle Club. Happy wheeling to him!!

'59 GERALD A. LAUTERBACH is president of Premium Instruments Co., Chicago.

'60 JULIUS E. MONGE has just completed a four-year program at Lake Forest College for the degree of M.S. in Management. He is Western Sales Manager for the Construction Equipment Division of International Harvester Co.

'61 WILLIAM E. GOSSETT has been the Regional Sales Manager of Process Equipment, Carbon Products Division of Union Carbide Company for about two years. He has worked for this company since he graduated and has been located in both the Midwest and East before settling in the Chicago office. Bill and Judy live in Northbrook with their three children ages 10, 7, and 3.

'62 D. JAMES BADER has opened his own Park Forest law office, in partnership with Joseph Roth. Jim graduated from the College of Law at Urbana in 1964 and began work in Washington, D.C. as an examiner for the U.S. Patent Office. He then joined the IIT Research Institute as a patent attorney, with responsibility for operation and administration of all patent and legal activities. He has had further experience with a Chicago law firm as well as with an international corporation.

'62 JEFFREY H. ROSKI is manager of Sales Information for the Pharmaseal Division of the American Hospital Supply Corporation in Glendale, Calif.

'63 MICHAEL R. PHILLIPS is the president of Phillips and Associates in San Francisco. As a pleasant diversion, Mike has been appointed 1972 Northern California Executive Director for the Miss California-World Beauty Pageant.

'65 ROGER A. LARSON completed his MBA at Northwestern University in 1971, majoring in Operations Research. He found that the G.E. curriculum provided a sound foundation in math and economics but not enough in statistics and programming. Roger is currently in charge of an engineering staff comprising civil, electrical and mechanical graduates from predominantly Eastern universities.

'67 RICHARD L. BACHTA has recently completed a second Mediterranean cruise aboard the U.S.S. John F. Kennedy, piloting Corsair II's attached to the attack squadron. He is now stationed in Indianapolis as Aviation Programs Officer Recruiter, with rank of Lieutenant, U.S.N.

'67 FRED BERGNER has assumed the position of Application Engineer, Marketing Division, with the Duncan Electric Company, Lafayette, Indiana. Previously, Fred had worked for the Stewart-Warner Corporation in Chicago. He was married to Miss Barbara Leleniewski last fall.

'68 DONALD C. BISHOP has completed his four year tour of active duty in the Naval Service and is now a student at Louisiana State University in Baton Rouge. Don is working towards his MBA while his wife studies toward her M.S. in Library Science. He holds an assistantship from the Department of Finance to program LSU's 360 computer much as he did in Commerce West while an undergraduate here.

'68 CHARLES W. MAHAN is currently Assistant Staff Judge Advocate in the U.S. Air Force, stationed at Robins A.F.B., Georgia. Chuck received his J.D. from Ohio State in December, 1970, and then took a year's special training in Government Procurement and Contracting. A major part of his work now deals with review of engineering specifications and drawings. He says that hardly a day goes by when he is not called on to use his engineering background in conjunction with his legal training.

'71 MICHAEL R. KERCHENFAUT was married to Kathleen Gergl of Oak Park this past June, and is currently in the Sales Training program of FMC Corporation, Link-Belt Division, in Chicago.

'72 SAMUEL E. ESKRIDGE has begun his tour of duty in the U.S. Army as an Executive Officer of a training company in Ft. Knox, Ky. Lt. Eskridge is serving his four years of active duty in the Armor branch of the Armed Forces. Sam was back on campus recently and was as lively and enthusiastic as ever.

'72 RICHARD A. FORBES graduated in February and went to work with Ceco Steel Corporation in Chicago. In July he married Sheva Cannell of Rockford (B.S. Food Science '72). Currently Dick is an engineer with the Illinois Environmental Protection Agency in Springfield.

'72 FREDERICK J. FRITZ has been awarded the Bucyrus-Erie Fellowship at Harvard University Graduate School of Business Administration and is working toward an MBA degree. He plans a career in international business.