



# GENERAL ENGINEERING NEWSLETTER

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

Vol. 26, No. 1

Fall 1983

## LETTER FROM THE DEPARTMENT HEAD

At a time when the job market is down for all engineering graduates, initial interviews are essential for general engineering. However, if the interviewing company does not request our students, the placement office will not allow them to sign up, even though they more than meet company specifications. The result is that general engineers have lost critical opportunities.

I would like to ask you to alert your personnel office that they must formally request general engineers on the interview schedule. Also, let me know of openings so information can be circulated in our senior seminar.

I would like to get your input from another area, too. Because the department is striving to meld industry-academia-student interests, we are forming a Consortium in Modeling and Simulation as Applied to Interdisciplinary Engineering Design and Production. We are putting together a continuing education program for practicing engineers in mathematical modeling, finite-element-analysis simulations, and microprocessor design; and we are actively developing a research program on the use of robotics in manufacturing.

The formation of the Consortium would offer a broadly-based, industry-department interface on several technological fronts. It would further our goal of maintaining a responsible awareness of industry's role in the education process.

A third area of expanded interaction between the department and our alumni is the revitalization of the General Engineering Constituent Alumni Organization. Professor David C. O'Bryant, assistant department head, will be responsible for department liaison and will establish a charter committee.

As now conceived, this organization could develop programs fitted to the needs of alumni by planning reunions and social gatherings and by serving as an informal source of employment information. We would count on this group to upgrade the department's interface with industry, update the department on industrial innovations, and keep the alumni aware of legislation affecting education.

There is an imperative need for our alumni to become involved with the aims of the general engineering department. A meeting is being planned for the spring of 1984. Please contact us if you are interested in participating. Any suggestions for building a strong constituent alumni will be welcome.

Jerry S. Dobrovolny



## Industry responds to engineering needs

The university has been selected for additional industry-donated computer equipment and software packages. When combined with the current and planned facilities, it will provide one of the nation's most comprehensive instructional and research CAD/CAM programs.

The equipment includes an IBM 4341 processor, IBM direct-access storage devices and over a dozen monochrome and color-interactive IBM graphics terminals. Software packages are being donated by IBM, CADAM Inc., Dassault Systems of Paris, Bell Northern Research Ltd., and Structural Dynamics Research Corp.

Within our department, professors Thomas F. Conry, Wayne J. Davis, and Michael H. Pleck are coordinating the implementation of CAD/CAM as engineering tool. Innovative use of CAD/CAM is an increasingly central aspect of future engineering practice.

When presenting his company's contribution in June, IBM Chairman John R. Opel said, "We are on the threshold of a new era in manufacturing technology and there is a critical need in industry for people who can make full use of that technology and enhance it in years to come. There can be no factories of the future unless there are universities of the future educating those people now."

## Engineering Alumni Effective

Engineering alumni played a major role in the enormous statewide effort to secure much needed funding for the university, according to Daniel C. Drucker, dean of the college of engineering. Special initiatives for engineering were allocated under the heading of Engineering Revitalization.

The university can hope to retain its most competent faculty, add needed staff, obtain a fraction of the required instructional equipment, and do essential remodeling with this new infusion of funds.

High priority can be given to revising curriculum at undergraduate and graduate levels, opening new areas of research and teaching, and to reaching out more effectively to industry through continuing education, graduate education and research.

## Alumni-Industry Gifts

Industry has also shown support by matching the donations of some of our alumni. Because the department is increasingly dependent upon private support to maintain and improve the quality of our academic programs, the College of Engineering Annual Fund was established in 1979. This fund helps departments acquire modern equipment, aids student activities, assists special projects of professional society student chapters and finances awards for undergraduate study.

Among those contributing since April 30, 1983 are: American Hospital Supply Corp., Caterpillar Tractor Co., McCaleb, Lucas & Brugman, National Steel Corp., Alger S. Barnard '24, Alan R. Belair '82, John F. Bergo '77, Mr. & Mrs. Robert W. Brown '77, '79 in behalf of Elizabeth Ruff, Richard Carpenter '81, Catherine Clary Carroll '81, William C. Chedister '77\*, James H. Christensen '77, Mr. & Mrs. Arthur G. Dixon '24\*, Gary A. Gluck '80, James C. Gruen '69, Richard B. Hoffman '70, Ruby V. Hoelscher, Bruce R. Holecek \*\*, Richard D. Johnson '56\*\*, Ronald S. Kareken '58\*\*, Susan E. Kenny '80, Kent D. Kowalske '82, Shelby D. Lawder '65, John J. Mackanin '77, Daniel G. Manczak '50, Gregory R. Martin '77, Michael A. Osowski '80, Michael F. Purcell '73, John B. Reat '74, '76, Gregory R. Reynolds '82\*, Harrison Streeter\*, Harold B. Wishart '31, '32.

The U. of I. College of Engineering seeks an engineer with a distinguished industrial career to develop and lead a substantial program of interaction with industry. Write: Dean Daniel C. Drucker, 1308 W. Green Street, Urbana, 61801, before January 23 for full consideration. Salary commensurate with qualifications in the University context. Starting date, February 15 or later. The University is an affirmative action/equal opportunity employer.

Does your company have an analog computer which could be donated to the department? Contact L. Wozniak 217-333-3413 or write.

## Industry sponsors projects

The Senior Design Program exists because of a growing recognition of the importance of industry and university cooperation. Industry-sponsored projects introduce seniors to real-world engineering problems. Students, technically backed by university faculty and facilities, offer innovative approaches to industry.

First place in the competition was awarded to R.J. Pluhar, V.L. Rose, and M.J. Udelhofen for their project titled "Computer-Controlled Mechanical Testing Drive System."

This report describes the design and assembly of a computer-controlled mechanical testing drive system for an otherwise manually-operated bending test unit. The bending unit is used to perform a three-point bending test on a small, notched Charpy bar inside a scanning electron microscope in order to observe at high magnification the crack propagation and fracture of the bar.

The U.S. Army Construction Engineering Research Lab. sponsored this project for which Professor Thomas F. Conry was the advisor.

Second place went to M.R. Bryden, A.E. Horne, and M. Jankowski for their project, "Real Time Weld Quality Monitor." The U.S. Army Construction Engineering Lab was again the sponsor and Senior Research Engineer Dominic Skaperdas was the advisor.

The project answered a need to decrease real time analysis for a weld quality monitor which utilized a Dynabyte basic controller. The applications of the monitor were limited by the relatively slow cycle-time. The report recommends hardware currently available, and provides the necessary software to reduce cycle-time to less than 50 m.s. as required for real time analysis.

1983

## Annual College of Engineering Fund

\* Sponsoring Associates are recognized by each department for their contribution of \$100 or more.

\*\* The Dean's Club honors those who contribute \$500 or more to a department or to the college.

Enclosed is

\$10    \$25    \$50    \$100  
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## FACULTY NEWS



James V. Carnahan



Juraj V. Medanic

Two new members joined the general engineering faculty this fall. **Dr. James V. Carnahan**, assistant professor, comes from a consulting engineering practice in western Kentucky, where he specialized in mining and waste disposal projects and land surveying. **Dr. Juraj V. Medanic** comes from the Mihailo Pupin Institute, Belgrade, Yugoslavia, where he was a senior scientist in the System Analysis Division of the Automation Laboratory and adjunct professor in the University of Belgrade.

Carnahan, prior to working as a consulting engineer, was a member of the research staff at General Motors Research Laboratories near Detroit. While with GM, he studied automated vehicle system reliability and urban traffic flow models. He also investigated the relationship of vehicle size to occupant safety through statistical analysis of auto accident records.

Before returning to Purdue for graduate studies, he researched the propagation of error in inertial navigation systems for the Naval Avionics Facility in Indianapolis.

His bachelor's, master's, and doctorate degrees are in engineering sciences from Purdue University. His doctoral research topic was analysis of pedestrian flow, and he designed theoretical and simulation models for free and congested flow.

Carnahan is a member of Tau Beta Pi, Sigma Xi, American Congress on Surveying and Mapping, and National Society of Professional Engineers.

Medanic, while at the institute in Belgrade, managed industry-sponsored research and development in systems-analysis applications, particularly applications to water resources and power systems. His work included design of operational hydrologic forecasting systems and hydrometeorologic networks, long-range planning of hydro power production, identification of hydrological systems, and discrete modeling of Karst collectors.

He has supervised large-scale systems theory research in design of low-order dynamic regulators and has directed the development of methods for structural decomposition of dynamic systems. Power-systems applications have included determination of operating reserve, control in the alert and emergency state and design of associated data bases.

At the University of Belgrade, he taught graduate level courses on optimal control theory, differential games and control of large-scale systems with multiple objectives.

Medanic has a joint appointment with the Coordinated Science Laboratory at the university, and will organize graduate research in control of large-scale systems and systems analysis. He is a member of the IEEE Control Systems Society standing committee on international relations, member International Federation on Automatic Control committee for theory, and assoc. editor, *IFAC Journal Automatica*.

**Professor Thomas F. Conry** is active in three major areas this fall. He is now a member of the ASME meetings committee which is part of the Board on Communications.

In October he presented a two-part paper with Professor Chris Cusano and graduate student Peter R. Goglia at the ASME/ASLE Lubrication Conference at Hartford, Conn. The paper is titled "The Effects of Surface Irregularities on the Elastohydrodynamic Lubrication of Sliding Line Contacts." This fall, graduate student James Muenzenberger continues the work of graduating Richard Cartwright as the graduate assistant on Conry's NSFC grant, "Thermal Effects of EHD traction."

**Professor Osman Coskunoglu** brings together the resources of many disciplines. Three of his doctoral students graduated during the spring and summer, receiving degrees in mechanical and industrial engineering, civil engineering, and accountancy. They exemplify his interdisciplinary approach to problem solving.

The U.S. Army Construction Engineering Research Laboratory in Champaign partially funded his research on human-computer interactive decision making in the context of decision support systems. An interactive computer program was developed for solving the dynamic programming formulation of multistage decision processes. The program was coded in Pascal for the Apple microcomputer. This is one of the first attempts to develop a microcomputer code for dynamic programming.

Coskunoglu made two presentations based on his studies. One was at the microcomputer exhibit for the Joint National Meeting of the Operations Research Society of America and the Institute of Management Science in Chicago. Another was at the second annual conference on Applications of Operations Research in Springfield.

He is also active with a pioneering effort to apply mathematical programming to solar energy systems. Other researchers have used simulation methods. His paper, "Mathematical Programming Procedures to Optimize the Collector Field Subsystem of a Power Tower System," appeared in *Solar Energy Journal*, published by the International Solar Energy Society.

**Professor Wayne J. Davis** is currently working with the United States Department of Energy, the Purdue Laboratory of Applied Industrial Control and a consortium of the American steel industries on a decision-making/control hierarchy for the entire steel making process. This would schedule the process from charging of blast furnaces to rolling of finished steel. It would consider customer demands, product inventories, production costs, energy utilization, and quality control. This combined effort of the university, industry, and the government follows years of research with hierarchical decision-making models.

Davis also assists the U.S. Army Corps of Engineers at Champaign in the development of a voice recognition system. The microcomputer based system will use voice input to interact with an artificial intelligence system. Applications for this system include a paraplegic robot and an autologging device for quality control in construction inspection.

Davis is seeking new mechanisms for the management of engineering projects. In particular, he is applying novel simulation approaches to this classical problem.

The research has influenced the content of GE 495, a core course for the general engineering master's curriculum. This course focuses on post optimal analysis techniques in operations research, particularly mathematical programming and simulation. This semester's emphasis will be on the implementation of automated hierarchies for production systems. These are likely to represent the next thrust in industrial automation.

**Professor L. Daniel Metz** recently completed work on several research papers. One concerned the ground effects phenomenon as used by Indianapolis racing cars. He served as USAC technical observer at last year's Indy 500, taking radar at Turn Three. He used his pictures in several recent departmental seminars. His paper, "Vehicle Ground Effects as Applied to Championship Racing Cars," will appear in the International Journal of Vehicle Design.

In addition, Metz is completing work in the area of human control performance viewed as a time-varying model. He and master's student Bernie Cyr completed a study of the robustness of time-varying parameters within such models, and a paper on that subject will appear in the IEEE Transactions on Systems, Man & Cybernetics.

Professors Metz and Moeinzadeh are also doing high-speed motion studies of the relative biomechanical and sports benefits of recumbent vs. regular bicycles in cooperation with the U. of I. Biomechanics Laboratory.

**Professor Manssour H. Moeinzadeh** has been awarded a National Institutes of Health grant for research on "Two-Dimensional Dynamic Modeling of the Ankle Joint" by the university's Biomedical Research Grant Board. The board also has research assistantship funds for several graduate students in bioengineering.

Moeinzadeh is the author of "Dynamic Modeling of Human Articulating Joints," published recently in the International Journal of Mathematical Modeling.

**Professor D. C. O'Bryant** presented a paper titled "Increasing Participation of Minorities in Engineering" at the annual Technical Design Association meeting in Boston. TDA is made up of representatives from various industries who meet annually to exchange information and ideas. Dr. O'Bryant is a consultant to the Minority Introduction to Engineering program which has programs on 40 university campuses and reaches over 2000 minority students each year.

A new course has been developed by **Professor Louis Wozniak** to present a functional, field-ready knowledge of the interrelation of computers and microprocessors to the control of dynamic systems.

The course mates the two areas by addressing issues

of process control. Students will be given a working introduction to digital controls, using classical and modern approaches.

**Senior Research Engineer Dominic O. Skaperdas** will present sections of this 300 level course which will emphasize applications. The course is open to seniors and graduate students.

## High School students try engineering

JETS, Junior Engineering Technical Society, is a national non-profit organization that promotes interest in engineering, technology and science among talented high school students. It sponsors summer sessions at three Illinois locations, supports the National Engineering Aptitude Search test, and conducts an essay-presentation competition.

The two-week summer programs orient students to college courses in engineering, mathematics, library research, computer science, and lectures.

The National Engineering Aptitude Search test, sponsored by JETS, was given to 662 high school students at 52 locations in Illinois this year. This test, developed by the American College Testing Service, is designed to indicate aptitude for engineering study.

This year 46 high school groups have entered an essay-presentation competition on the subject of solid waste recycling. Statewide competition will be held at various locations in March. State finalists will compete in Springfield during National Recycling Week in April.

**Professor David C. O'Bryant** of general engineering is state JETS director, and **Jonathan Horner** is state coordinator. JETS is supported by the country's leading engineering employers.

## STAFF NEWS

**Ethelmae Hale** retired this fall after 19 years with the department. She began with the university in 1963, and after several promotions became administrative clerk in 1968. She plans to spend the next few months taking short trips with her husband before making any further retirement plans.

**Sydney P. Cromwell**, who replaces Ethelmae Hale as the administrative clerk for the main office, comes from the Liberal Arts and Sciences administration office. There she was responsible for state budget accounting, so she brings a broad background of knowledge in university procedure and comprehensive understanding of the new accounting system, University Financing & Administrative Systems, to her new position.

**Arthur R. Wildhagen**, department editor during the past year, had open heart surgery this summer and a stroke this fall. After 44 years with the U. of I. News Bureau, he had retired from the post of science editor and was working part time for the department of general engineering. He has received numerous honors, including life membership in the National Association of Science Writers, and on his retirement, a citation from Sigma Xi. Several years ago he was honored by the U. of I. Dads Association with its Outstanding Faculty-Staff Member of the Year award.

## ALUMNI NEWS

**1937** George G. Youngstrum moved to East Flat Rock, N.C. from Hendersonville, N.C. He is official engineer for the neighborhood and spends his free time working with the Boy Scouts, the Shrine Club and a counseling service for the elderly.

**1940** Roger S. Hutton moved from West End, N.C. to Deerwood Manor, Minn.

**1948** Charles H. Sechrest retired from Esson Research and Engineering Co. and moved to Morristown, N.J.

**1950** Lester A. Boldebeck has been named senior vice president for divisions and consumer relations of Northern Illinois Gas Co., Aurora. He joined NI-Gas in 1950 and has held numerous executive positions, including vice president, divisions; assistant vice president, consumer relations; assistant vice president, technical services; and division vice president, eastern division. In addition to his general engineering degree with mechanical option from the U. of I., he has pursued graduate studies in the MBA program of the University of Chicago. Boldebeck, his wife, Marge, and their three children live in Hinsdale.



Lester A. Boldebeck 1950



Louis J. Mancini 1972

**1953** Richard W. Reynolds, Chief Mechanical Research Engineer for Sunstrand Advanced Technology, was awarded the Fellow grade of membership by the Society of Automotive Engineers in recognition of his active support for the Hydraulics and Pneumatics Committee and his organization of the first-ever session on fire resistant hydraulic fluids. Reynolds and his wife, Trudy, live in Rockford. Prior to his transfer to Rockford, Reynolds worked for Sunstrand Hydro-Transmission, Ames.

**1956** Myron J. Bernard, Vice President, Special Projects and National Accounts, for GEICO Engineering Corp., was elected president of the 115-year-old, 1800-member Engineers Club of St. Louis.

**1957** Professor Ralph I. Stephens was honored for outstanding contributions to work in fatigue design. The Society of Automotive Engineers technical board presented the award in April at the committee's meeting on the U. of I. campus. He says, "I am rather proud about receiving the award at my first alma mater.

We saw Chief Illini perform and he was just as awe-inspiring as 25 years ago." Stephens earned his master's in theoretical and applied mechanics from the U. of I., and doctorate from the University of Wisconsin. He teaches at the University of Iowa's material engineering department, specializing in fatigue design and evaluation.

**1958** Wayne A. Hamilton, Vice President of Engineering, Harper-Wyman Co., approaches his twenty-fifth year with his company. He lives in Oswego.

**1959** Cecil W. Stradley, General Manager, Spicer Clutch Division of Dana Corp., Auburn, Ind., lives in Fort Wayne.

**1960** Clinton G. Towne, President since 1976 of Towne Machine Tool Co., Danville, Ill., married in 1980. He and his wife, Cheryl, a senior in the U. of I. College of Nursing, have a new daughter, Charlotte Christine.

**1963** Edward C. Wahl, M.B.A., U. of I., '66, married Janet R. Chisholm, master's in English education, U. of I., '65. She teaches English at Thornton Township High School, Harvey. He is owner-manager of ColorPac Proofing and Graphics, Arlington Heights.

**1965** Charles W. Rowley, Manager of Business Development, Quadrex Corp., Campbell, Calif., was promoted from general manager of the Tulsa division. Rowley earned a master's in nuclear engineering in 1967 from the U. of I. and now lives in Scotts Valley, Calif., with his wife and two children.

Thomas S. Snow moved from Carol Stream, Ill. to Richfield, Utah.

**1966** Thomas O. Knight moved from Lutz, Fla. to Brookfield Center, Conn.

**1969** Edward A. Bartz Jr. moved from Florence, S.C. to Winston-Salem, N.C.

Maj. Leroy C. Basha moved from Apple Valley, Calif. to Enid, Okla.

**1971** David G. Mann moved from Fort Collins, Colo. to Jefferson City, Mo.

**1972** Louis J. Mancini, Staff Planner with Chevron USA, San Francisco, does analytical business studies for near-term management decisions. These have included price forecasts for oil/gas lease sales, analysis of natural gas liquids production from offshore California and evaluation of a project to bring liquid natural gas from Alaska to California. He, his wife, Chris, and son Eddie, live in Pleasant Hill.

David J. Mitchell, Intelligence Research Specialist, Army Foreign Science and Technology Center, Charlottesville, Va. represents the handicapped for the Community Development Task Force planning commission and for the Charlottesville Housing Forum. He is on the policy council for Woodrow Wilson Center for abilitation services in Virginia and is active with the Central Virginia Handicapped Advocates Group and Charlottesville Cardinals wheelchair basketball team.



**1973** Robert J. Novaria moved from Independence, Mo. to Chicago.

James A. Sullivan moved from St. Ann, Mo. to Melrose Park.

Thomas R. Ziech, Supervising Engineer at Inland Steel, received an M.B.A. from the University of Chicago in 1977 and married in 1982. He and his wife, Helen, a Bucknell civil engineering graduate, now live in Chicago.

**1974** Harold D. Harz, Advisory Product Planning Analyst for IBM Information Planning Services, Atlanta, married Barbara Lucas, a Georgia State-Georgia Tech alumn. They live in Marietta, Ga.

Bruce L. Hurvitz, former vice president of Fisher Steel and Supply Co., now represents NHP Service Co., mechanical engineers, Niles. His duties include new account development, administrative coordination and responsibilities as a member of the board of directors of the parent firm, National Heat and Power Corp. Hurvitz now lives in Deerfield.

**1975** Herbert J. Green develops solar thermal control receivers at the Sandia National Laboratory in Livermore, Calif. This special assignment for Solar Energy Research Institute carries him from his Golden, Colo. home until early 1984.

David H. Hinz worked in the Peace Corps on suspension bridges for Nepal, and worked in the U.S.A. on hydraulic and pneumatic cylinders, coal gasification research, and gearbox design before becoming vice president of a resort in Bovy, Minn.

Hardin T. James Jr. automates manufacturing operations for Carnes Co., Verona, Wis. and works toward an M.B.A. at the University of Wisconsin, Madison. He and his wife, Della, have two children.

Gregory P. Konneker, Financial Associate with General Foods Corp., White Plains, N.Y., was transferred from financial analyst for GF International, Latin America, to his new post. Konneker also works on an advanced degree in corporate finance from Pace.

James J. Schlembach, Operations Planning Coordinator for Monterey Coal Co. No. 1 mine in Carlinville, married Ellen J. Winters of Park Forest.

James E. Spese designs equipment and apparatus for experimental research in the U. of I. Nuclear Physics Research Lab. He was previously a design and application engineer with the Hyster Co., Danville.

**1976** William S. Bennett, Senior Engineer with Martin Marietta Aerospace, Denver, works with real-time simulation and testing of flight software for an orbital transfer vehicle, the "inertial upper stage." Bennett earned a master's in electrical engineering from Illinois in 1981 and married that year to Cheryl S. Schlessman, an elementary school teacher. They live in Englewood, Colo.

David C. Boyer, Vice President, Operations, with Placon Corp., Madison, Wis., has moved to that city. He earned an M.B.A. from Northwestern University in 1981.

John B. Holz, M.S.G.E. '81, Regional Engineering and Scientific Marketing Representative for IBM in Waltham, Mass., lives in Chelmsford, Mass.

**1977** James R. Boyer moved from Apollo, Pa. to East Norwich, N.Y.

Richard K. Cannon moved from Dallas to Richardson, Texas.

Terry W. Ditsch, Reliability Engineer with Dresser Industries, Libertyville, earned a M.B.A. in finance from DePaul University. He lives in Elmhurst.

Daniel N. Donahoe, Senior Staff Project Engineer for Motorola, GEG, Scottsdale, Ariz., earned a master's in mechanical engineering in 1979 from Illinois and an M.B.A. in 1983 from the University of Santa Clara.

Gregory R. Martin, Product Engineer for Dresser Industries, Chicago, married Victoria M. Voller of Western Springs, Ill. She is a graduate of Quincy College and an artist for a Chicago advertising studio. They live in Downers Grove.

**1978** Phillip W. Hauck, District Manager of United Conveyor Corp., Deerfield, Ill., married Janet Winter, a U. of I. School of Human Resources and Family Studies graduate, in 1979. They live with their new daughter, Karn Rae, in Vernon Hills.

Martin E. Lunkes, Sales Manager in the Quad Cities area for Johnson Controls, specializes in the design and installation of computer-based energy management systems for hospitals and industrial facilities. He also is responsible for training sales engineers in the application of temperature control and fire alarm systems for buildings. He lives in Davenport, Iowa.

D. Scott Mehlenbacher moved from Moberly, Mo. to Chicago.

Roger D. Reem returned to the Iowa Army Ammunition Plant, Middletown, Ia., after earning an M.B.A. from Western Illinois University. He was a project engineer at the plant from 1978 to 1982 and is now contract administrator for Mason & Hager Silas Mason Co., the operator-contractor of the plant.

Jane A. Smith will receive a master's degree in mechanical engineering from the University of Cincinnati at the end of the fall quarter. She is a design engineer with the General Electric Aircraft Engine Group in Cincinnati and lives in Sharonville, Ohio.

**1979** Anthony Bonasera, Sales Engineer with Western Electric Co., Rolling Meadows, Ill. married Elizabeth H. Branch, a student in nutrition from Northern Illinois University. They live in Hoffman Estates.

Jay R. Goldberg, Principal Engineer of Medical Products Division, Travenol Laboratories, Deerfield, is engaged to Susan Sheinkap, U. of I. College of Liberal Arts and Sciences, 1981.

Todd C. Green moved from Chicago to Boulder, Colo.

Daniel K. Mankivsky, an engineering coordinator for the Das Island, United Arab Emirates' Abu Dhabi Project, lives in London to coordinate piping systems and cost-extra claims for the LNG/LPG plant.

Bradley D. Mottier, M.S.G.E. '81, is product manager for Slick Aircraft Products, Rockford. He and his wife, Jenny, have a baby daughter, Danielle Louise, born in June.

Lt. David O. Reip moved from Fort Rucker, Ala. to Fort Walton Beach, Fla.

David S. Rosenbaum, a resident in internal medicine at Barnes Hospital of Washington University, St. Louis, received his M.D. degree from the U. of I. at the Chicago Medical Center. He now lives in Clayton, Mo.

**1980** Peter M. Collins now lives in Palatine, Ill.

Terry L. Fear moved from Denver to Williston, N.D.

Douglas P. Goetz, a Research Scientist in the fatigue and tribology section of Battelle Memorial Institute, Columbus, Ohio, completed a master's in theoretical and applied mechanics from Illinois in 1982. He is engaged to Lori Lahti, a member of the InterVarsity Christian Fellowship staff on the campus at Urbana-Champaign.

Silvana Medina finished her first year in Harvard Business School and worked during the summer as a member of Hewlett-Packard's information networks division. Joliet, Ill. is still her home address.

Laurence E. Thomas, Project Engineer in new production development for Spraying Systems Co., of Wheaton, married Dorice Kus in June 1983. She is an Illinois State University Graduate and works as an accountant with A.M. Bruning. They live in Carol Stream.

**1981** Donald W. Balas, Staff Engineer of production with Northern Illinois Water Corp., Champaign, earned a master's in environmental engineering from the U. of I. in 1983. He lives in Urbana.

Stephen A. Clark moved from Greenville, Pa. to Rockford.

Catherine E. Clary of E.D.S. Nuclear Consulting Engineers, San Francisco, married fellow engineer Tim Carrol. The couple is celebrating the recent birth of their first child, Michael Timothy.

James P. Danielson is now sales engineer with Eaton Corp., Carol Stream, Ill. He lives in Hoffman Estates.

Paul N. Garcy has taken a position with Arthur Anderson, Chicago.

Timothy C. Johnston moved from Belmont, Mass. to East Peoria, Ill.

Richard A. Lisa moved from Chicago to Scottsdale, Ariz.

Mark R. Pavlat is now industrial marketing specialist with Pall Corp., East Hills, N.Y. In this post he oversees new product development and coordinates marketing efforts for hydraulic and lubrication filters in the machine tool, pulp and paper, and primary metals industries. He lives in Glen Cove, N.Y.

John R. Regan is employed by General Dynamics, Fort Worth, Texas.

Steven R. Reynolds is now with IBM in Charlotte, N.C.

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We will forward a letter to the last recorded address of an alumn. Provide a stamped, sealed envelope with your return address. One per alumn, please.

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**1982** Daniel A. Calvert now works at Sunstrand, Rockford. He and his wife, Cindy, live in that city.

Richard T. Cartwright Jr. M.S.G.E. '83, accepted a position with Harris Corporation, Fla.

Steven DuBois, after a year of training in Milwaukee, was promoted by Industrial Automation Controls to sales engineer and assigned to the San Francisco area. He moved to San Leandro, Calif.

James F. Gerber and Scott A. Jennings have positions with Illinois Bell, Chicago.

Peter M. and Susan M. Jarrell moved from York, Pa. to New Freedom, Pa.

Kent D. Kowalske is now sales engineer with Zeuschel Equipment Co., Peoria and lives in Dunlap.

David M. Negley moved from Peoria to Charlestown, Mass.

Gregory R. Reynolds, Air Force Second Lieutenant specializing in flight-simulator training, has qualified for the June 1984 Olympic trials in the 1500 meter run. He is being coached by Robert K. Scul, the only American ever to win gold in the 5000 meter run, Tokyo, 1964. Reynolds is based at Wright Patterson AFB, Dayton.

Virginia L. Rose is now associate software engineer with General Dynamics, Fort Worth.

David C. Taylor completed 10 months in Pensacola, Fla. at the Navy Aviation Indoctrination and Primary Flight Training School and is now at the Naval Air Station in Meridian, Miss. for a year of training in two types of Navy jet aircraft, with aircraft carrier landing qualification in both. He will receive aviator's wings in February.

David R. Vergara now lives in Glendale Heights.

**1983** Kevin L. Ayers is employed by the FBI in Washington, D.C. He is taking courses toward a master's in mechanical engineering at George Washington University.

Joseph L. Brittin is now nuclear safety specialist with the Illinois Department of Nuclear Safety, Springfield.

James E. Duchnowski, a recent visitor to the campus, is very enthusiastic about his job with Anheuser-Bush in St. Louis, although he professes to know very little about their products.

Julie A. Evans of Foster City, Calif. is the former Julie Chalden. In May she married David Evans who earned his bachelor's in electrical engineering from Illinois in 1982.

Keith R. King, now with T.R.W. of California, lives in Redondo Beach with his wife, Turid.

Edward J. Klinenberg is working on a bio-engineering research grant at Northwestern.

Michael Lehmann, an olympic contender, finished 10th in the World Championship shot put event. He tossed the shot 64 feet 7¼ inches in competition with strong European contenders.

Robert A. Mog moved from Lebanon, Ill. to Huntsville, Ala.

David N. Moser is now with Bell Systems, Chicago.

Timothy J. Nolan is sales engineer with Halogen Insulator and Seal Co., Elk Grove. In January he married Karen L. Weingantz who earned a bachelor's in industrial engineering from Illinois in 1982. They live in Schaumburg.

Cynthia L. Sarver works at Hughes Air Craft near Los Angeles.

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## OBITUARY

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Elizabeth M. Ruff, a January graduate, was killed in an auto accident in late July. A few weeks before her death she was making plans to enter the graduate program in general engineering. Fellow students and the general engineering faculty remember her as a pleasant, warm person and a very capable student. We extend sympathy to her parents, Mr. and Mrs. Clairemont A. Ruff of Chicago.

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## Additional Law Degrees

**Gary L. Avril**, Hinsdale, is a 1974 general engineering graduate who later attended John Marshall Law School, Chicago. He works in the area of products liability for CBI Industries, a subsidiary of Chicago Bridge and Iron.

**Champ W. Davis Jr.**, Elmhurst, graduated with degrees in general engineering in 1963 and in law from the U. of I. in 1966. He was one of several attorneys featured in a recent panel discussion on "The Lawyer in the Courtroom" presented by the law student division of the American Bar Association.

**Brian G. Eberle**, Los Angeles, graduated from Illinois in 1980. He then completed law studies at UCLA and now has a two-year clerkship with Judge Cynthia Hall in the Federal Court District, Los Angeles. He plans a November wedding with Kim Massey, who earned a master's in urban planning and now is with the Los Angeles Regional Transportation District.

**Dennis E. Lantz**, Santa Rosa, Calif., earned his bachelor's degree in 1959 from the U. of I., an M.B.A. in finance from California State University, Fullerton, and law degree from Western State University, Fullerton. He started his career in technical sales, then moved into administration and finance. He was controller at Teledyne before entering the field of tax and financial consulting. Now he has his own law offices in Healdsburg, Calif. Lantz says, "With the perspective of several years, I honestly believe that general engineering is an excellent background for almost anything. What I learned has stood me in good stead through a varied career, and still is useful today, both as a lawyer and businessman."

**Jeffrey M. Olson**, Pasadena, Calif., who earned a general engineering degree in 1977 and later a law degree from the University of Michigan, is an associate with the firm of Lyon and Lyon, Los Angeles.

**N.L. Roy**, Orange, Calif., graduated from Illinois in 1942 and then earned a law degree from Marshall Law School, Cleveland. He is now a retired tract builder and developer.

**Steven B. Todaro**, '76, application engineer with Ingersoll-Rand Co., Metairie, La., earned a law degree from Loyola University, New Orleans. Since the first of the year, he shares an office with **Greg Johnson**, a 1981 general engineering bachelor's graduate from Illinois on educational leave of absence to attend law school at DePaul University.



Marianne Dickerson 1983

**Marianne Dickerson**, a 1983 graduate of general engineering, won a silver medal at Helsinki's Olympic Stadium this summer. She set a personal record of 2 hours, 31 minutes and 09 seconds for the first women's marathon to be included in a world-level track and field competition. She finished exactly 3 minutes behind Norway's Grete Waitz.

## Alumni board needed

**Professor David C. O'Bryant** assistant department head, is initiating the General Engineering Constituent Alumni Association revitalization. He will be organizing an alumni-department committee to generate ideas for further alumni involvement.

A board of directors with associated officers is needed to oversee the joint effort. Anyone wishing to serve on the board or on special committees can contact O'Bryant. Right now, two major meetings, a general meeting in the fall and a board meeting in the spring, are under consideration.

O'Bryant is very strong on the value of this association. "The engineering field is dynamic. Changes are coming more rapidly all the time. We need all the help we can get to stay current with the latest needs and developments of industry."

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| <input type="checkbox"/> Single life         | \$175 paid in full<br>\$185 on installments<br>(\$10 down, four yearly<br>payments of \$43.75) |
| <input type="checkbox"/> Husband-wife        | \$200 paid in full<br>\$210 on installments<br>(\$10 down, four yearly<br>payments of \$50)    |
| Student or grad within two years of degree   |  |
| <input type="checkbox"/> Single life         | \$150 paid-in-full<br>\$180 on installments<br>(\$5 down, four yearly<br>payments of \$38.75)  |
| Student or grad within two years of degree   |  |
| <input type="checkbox"/> Husband-wife life   | \$175 paid in full<br>\$185 on installments<br>(\$10 down, four yearly<br>payments of \$43.75) |
| <input type="checkbox"/> Single annual       | \$11   |
| <input type="checkbox"/> Husband-wife annual | \$14   |

UNIVERSITY OF ILLINOIS ALUMNI ASSOCIATION  
1401 W. Green  
227 Illini Union, Urbana, Illinois 61801

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

College: Engineering. Department: General Engineering. Yr. \_\_\_\_\_

Spouse's name (if an alumnus) \_\_\_\_\_  
If female, list maiden name.

Spouse's College \_\_\_\_\_

Spouse's Major \_\_\_\_\_ Year of Degree \_\_\_\_\_

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