

GENERAL ENGINEERING NEWSLETTER

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

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Dobrovolny Honored At Retirement Dinner, Establish Scholarship

A large crowd of colleagues and friends from throughout the country gathered at the Champaign Country Club, Friday, Sept. 25, to honor **Prof. Jerry S. Dobrovolny** on his retirement.

Among those present were Mrs. Jo Dobrovolny and the couple's two children, James and his wife, Catherine, of Champaign; and Janet and her husband, Donald Mudloff of Oakland, CA. Both James and Janet are attorneys.

The evening was highlighted by the presentation of humorous skits, plaques and tributes to the retiree.

Dean Mac E. Van Valkenburg of the U. I. College of Engineering praised Dobrovolny's service to the University and presented a certificate on behalf of the Board of Trustees.

Prof. Thomas F. Conry, who succeeded Dobrovolny as GE Department Head, gave a chronology of the honoree's career and presented a plaque expressing appreciation from the Department.

Prof. Dobrovolny stepped down as GE Department Head after 28 years on Aug. 20. He retired from the University in November after serving on the faculty for the past 42 years.

In lieu of a major gift, Dobrovolny requested that a scholarship be established in his name to be awarded to a GE student demonstrating outstanding leadership.

The recipient must demonstrate leadership qualities by such activities as participation in student professional societies, campus organizations, academic scholarship, faculty-student senate, off-campus organizations, legislative initiative or other recognized efforts. The student must have completed 90 semester hours in the GE curriculum and have a 4.0 or higher grade average.

Those wishing to contribute to the Dobrovolny Leadership Scholarship fund are invited to do so by sending a check to **Prof. David C. O'Bryant**, 117 Transportation Bldg., 104 S. Mathews Ave., Urbana, IL 61801.

The committee planning the Retirement Dinner consisted of Prof. Conry, Prof. L. Daniel Metz and Prof. O'Bryant. Prof. Harrison Streeter served as master of ceremonies.

Those assembled showed their affection for the honoree with the following toast:

"Here's to Jerry, a friend good and true, And here's to Jo, let's give her what's due. You're always at your best when the going is tough. Giving 100% is never enough.

May you long continue to climb life's stairway, May the ball fly straight and far down the fairway. So, Jerry, we say with our glasses held high,

We wish you the best, you're one heckuva guy!!"

GE Expands Role In Manufacturing Engineering Option

General Engineering is cooperating with the other departments in the UI College of Engineering to establish a manufacturing option within the existing engineering curricula.

"The need for this development has resulted from the actual or perceived decline in U.S. manufacturing leadership in the world market," according to **Prof. Wayne Davis**, member of the College Committee on Undergraduate Curriculum Development in Manufacturing Engineering.

The anticipated structure of the program will parallel that of the bioengineering option for undergraduate students.

Major support for curriculum development has come from industrial grants — notably from IBM, General Motors and the Zenith Corporation.

The GE contribution to manufacturing will consist of three major components: undergraduate and graduate course development, research and professional development.

Major teaching laboratories have been established to support the course development.

Using grants from IBM and Zenith, two laboratories with a combined capacity of over 80 Intel 80286 based personal computers have been established to teach engineering graphics using the Computer-Aided-Design software AutoCAD.

"Through the combined efforts of Profs. Thomas Woodley, Michael Pleck and David O'Bryant, the incorporation of CAD into the teaching of engineering graphics at the UIUC College of Engineering is unsurpassed," Davis said.

In 1985, the College received Computer-Aided-Design and Manufacturing hardware/software systems based upon the IBM 4341.

This system has been incorporated in the teaching of GE 232 and GE 241 with emphasis on employing the finite element method in CAD. These same analysis tools are employed in the senior design project course, GE 242.

This resource is still inadequate for totally integrating the computer throughout the GE curriculum. **Prof. Scott Burns** with assistance from Prof. Davis and the encouragement of the College are seeking to establish a new laboratory of 30 MAC II engineering workstations.

Another major development has been made by **Prof. Mark Spong** in the area of robotics. Using industrial grants from General Motors and the Zenith Corporation, a robotics laboratory has been established.

Three courses now employ this laboratory. GE 293 is the laboratory course which allows the student to gain hands-on experience in programming the robot's trajectory. GE 389 studies robotic dynamics and control. Spong also has

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Department Head's Corner



After two months experience as department head, there is much to talk about. Jerry Dobrovolny turned over a department that is healthy and doing quite well. We have over five-hundred undergraduate students and twenty-six masters students. The full-time faculty numbers twenty-five.

The core of our department's strength is the excellence of the faculty. Three new tenure-track assistant professors were appointed this year: Mark Strauss, Dan Thompson and Deborah Thurston. They have excellent academic backgrounds and we are confident that they will develop into superb teachers and researchers. Mike Pleck, and Tom Woodley have been the driving forces behind the development of our micro-CADD laboratory for freshman engineering graphics, which is serving as the model facility for other schools throughout the country.

Other laboratories developed during the past two years include Mark Spong's robotics laboratory, Lou Wozniak's digital controls laboratory and Henrique Reis' non-destructive testing laboratory. This year Wayne Davis will be developing a hierarchical simulation laboratory for manufacturing systems and Scott Burns will be developing a micro-based CAD laboratory. This is a partial snapshot of our faculty's activity — we are active in teaching and in research.

Our cross disciplinary focus was discussed with the College of Engineering Advisory Board in September. We identified seven research areas in which we are engaged:

Computer Integrated Engineering Design
Control and Robotics
Manufacturing Systems Analysis and Decision Making
Expert Systems and Artificial Intelligence
Nondestructive Testing and Evaluation
Biomechanics and Rehabilitation
Engineering Optimization and Reliability

This broad range of research interest influences our teaching. The ultimate winners are our students, both the undergraduate and the graduate.

Several planning efforts have been started. A Ph.D. program is our primary department goal. Several committees in the department are working to develop the plan of action to achieve this goal. Our undergraduate program is going to receive a thorough review in the next two years to make those adjustments in our curriculum that are necessary for the General Engineer in the year 2000.

We have a unique department that educates well-rounded and competent General Engineers. We are proud of the accomplishments of our students and alumni(ae).

I would appreciate any comments you may wish to make. If you plan to visit Champaign-Urbana, please stop by to say hello.

GE Expands Role . . . (Continued from page 1)

developed GE 493 which teaches graduate students the advanced concepts of robotic control.

The GE staff also has participated actively in team teaching courses in manufacturing engineering, an example is Engineering Honors 297. In this course, Burns introduces students to the concepts of CAD while Davis introduces the Monte Carlo simulation techniques often employed to analyze the performance of manufacturing systems. From this course, several other courses will be developed.

Several other manufacturing related courses are already offered in GE. GE 495 has undergone a major metamorphosis which devotes nearly half the semester to the teaching concepts of Monte Carlo simulation with case studies in manufacturing.

In GE 334, **Prof. Brent Hall** addresses reliability issues in engineering design. In GE 324, **Prof. Louis Wozniak** provides the student with laboratory experience in digital control which is crucial in the regulation of manufacturing processes.

For the masters students, GE 491 taught by **Prof. Juraj** Medanic addresses advanced concepts in the design and simulation of control systems.

The impetus of curriculum development is engineering research. Spong has secured numerous research grants in the area of robotics control. In addition, Wozinak and Medanic both have secured independent research in control theory and applications.

Recently, Hall received a National Science Foundation grant to address reliability issues in engineering design.

This summer, Davis received a NSF grant and additional support from the UIUC Research Board and College of Engineering to establish a hierarchical simulation laboratory. This laboratory in corroboration with the Automated Manufacturing Research Facility at the National Bureau of Standards will permit analysis of advanced hierarchical designs for controlling an automated factory.

Prof. Henrique Reis with research grants from NASA and various industrial donors has established a nondestructive testing laboratory to ultrasonic inspection techniques which could have major impact in inspection processes.

Prof. Dan Thompson, has recently received a UIUC Research Board grant to investigate new methodologies in aggregate production planning.

Prof. James Carnahan is investigating the estimation of probabilistic distributions associated with on-line measurements derived from manufacturing processes.

Prof. Deborah Thurston's doctoral dissertation investigated the application of utility function theory in the selection of material in engineering design.

The third issue to be addressed is public service. The senior design course, GE 242, provides the senior student with an opportunity to address real-world manufacturing problems. As manufacturing engineering becomes a greater concern, this topic is becoming central to many of the industry sponsored projects.

GE also is active in the College efforts to bring graduate engineering courses to off-campus students. Nearly all graduate courses in GE are now offered on either videotape or electronic blackboard.

In addition, the faculty offers short courses in areas pertaining to manufacturing engineering. Recently Woodley and Pleck have offered an introduction to AutoCAD while Burns has offered short courses in more advanced CAD considerations.



Researchers discuss a project problem in the Non-Destructive Testing Research Laboratory. Shown left to right are: Graduate Students Dave Slowinski, Chicago, and Kurt Koenig, Oak Park, and Prof. Henrique Reis.

\$100,000 Gift Launches Dobrovolny Endowment

Prof. and Mrs. Jerry S. Dobrovolny have made a \$100,000 gift in the form of a charitable trust to the Department of General Engineering.

To be known as the Dobrovolny Endowment Fund, the gift will provide a lifetime income to the donors and provide funds for the acquisition and maintenance of books and articles for the College of Engineering.

Prof. Dobrovolny has previously donated several items to a history of engineering collection.

"I have had a lifetime interest in the history of engineering," he said. "I want future generations to have an understanding of the persons and events that have formed their engineering heritage."

Prof. Dobrovolny developed a course in engineering history which he taught for several years. Also he is author of "A General Outline of Engineering History and Western Civilization."

He recently retired from the U. of I. after serving for 28 years as head of the Department of General Engineering. He plans to devote much of his time in retirement writing a history of the department and continuing his interest and study in the history of engineering.

Prof. Manssour H. Moeinzadeh and Prof. Edward N. Kuznetsov have received an \$8,000 research grant from the U.I. Bioengineering Research Grant Board. It will find a project entitled, "The Design and Development of a Novel Propulsion System for Human Powered Water Vehicles." Prof. Howard Knoebel is one of the collaborators on the project.

GE Expands Role — (Continued from page 2)

Finally, the GE faculty is active in the various professional societies which are concerned with manufacturing engineering. Spong will assist in organizing a forthcoming Society Manufacturing Engineering meeting this Spring at UIUC. Davis has been invited to participate in numerous workshops in reference to his hierarchical control of manufacturing process.

He has been authorized by NSF to co-chair with Dr. Albert Jones of AMRF, a special workshop on real-time optimization issues in manufacturing.

Nondestructive Testing Research Laboratory Offers New Opportunities

A new nondestructive testing laboratory in the Department of General Engineering has been established under the direction of Prof. Henrique L.M. dos Reis.

Nucleus of the laboratory consists of acoustic emission and ultrasonic equipment and presents invaluable opportunities in curriculum development in the area of quality control.

Currently the laboratory is supported by grants and contracts from Monsanto, NASA Lewis Research Center, Sunstrand and Weyerhaeuser.

On-going projects include nondestructive evaluation of safety glass (supported by Monsanto), ceramic matrix composites (NASA Lewis Research Center), toughened ceramics (Sunstrand) and wood products (Weyerhaeuser).

Several graduate and undergraduate students are being trained through their research work for their theses in these areas.

At present the laboratory has been used only for research projects. However, once additional equipment has been acquired Prof. Reis plans to offer a graduate course entitled, "Nondestructive Testing of Materials and Structures."

Purchase of the present equipment in the laboratory was made possible by grants from NASA and from Monsanto Co. in Springfield, Ma.

"We gratefully acknowledge the support of these firms," Prof. Reis said. "We are seeking further support from manufacturing firms as we are anxious to further expand activities in the laboratory."

G.E. Receives No. 1 Ranking

The University of Illinois Department of General Engineering was ranked first among undergraduate departments in its field in the 1987 Gourmann report. Compiled nationwide by Jack Gourmann, seven other U.I. engineering departments were ranked in the Top Ten. The Department of Metallurgical Engineering also was ranked number one, in its area.

Other engineering departments ranked as follows: second in its field, Ceramic Engineering and Engineering Mechanics; third, Civil Engineering and Computer Engineering; fourth, Electrical Engineering; fifth, Aerospace Engineering and Computer Science; sixth, Agricultural Engineering; seventh, Nuclear Engineering; eighth, Chemical Engineering; ninth, physics; eleventh, Mechanical Engineering; and fifteenth, Industrial Engineering.

Visiting Scholar

Naiwen Yang of Beijing, China, is spending the year as a post-doctoral research associate in the Department of G.E. He is doing research in the field of control systems. Yang attended the Beijing Institute of Technology and the Harbin Institute of Technology, both in China.

An article, "Human Way is Not for Computers," based on research by **Prof. Scott Burns** appeared in the Aug. 24 edition of Electron Engineering Times. The article was illustrated by striking designs and plots produced by Burns.

Receives NSF Grant

Prof. Brent Hall has received a \$140,000 National Science Foundation grant on Reliability Models of Load Testing.

In the sponsored research, Hall will continue his work on conditional reliability problems, in which he has been examining ways to revise estimates of structural safety by combining new information from testing with other information on the performance of a structure. These methods are important in the assessment and verification of existing structural systems and other structural reliability problems.

Prof. Hall has recently presented a paper at the ASCE Structural Congress in Orlando, FL and has had a paper accepted for publication in the Journal of Structural

Engineering.

In addition, he has presented a paper on mechanical reliability at SAE conference in Peoria. He also participated in an American Iron and Steel Institute in San Francisco on the development of testing and design specification for cold-formed steel.

Faculty Notes

Prof. Harrison Streeter presented a paper at an IEEE Conference, "Frontiers in Education," at Rose-Hulman Institute of Technology in Terre Haute, In., Oct. 25. It was entitled "Engineering Attitudes in Social Science and Humanities Courses."

Prof. Mark Spong delivered the commencement address at his alma mater, Champion High School, Warren, Oh., on June 1.

Prof. Scott Burns is co-author of a paper (with J. Palmore and H. Benzinger) presented by Benzinger at the First International Conference on Industrial and Applied Mathematics June 29-July 3 in Paris. It was entitled, "Chaotic Complex Dynamics and Newton's Method."

Prof. Mark Spong has received a \$50,000 grant from the U.S. Army Construction Engineering Research Laboratory. It is to be used for the continuation of the Robotic Forging Project.

Prof. Manssour H. Moeinzadeh also attended the 95th Annual National Meeting of the American Society for Engineering Education in Reno, NV. He was designated the session chairman and organizer for the 1988 Biomedical Engineering Division entitled "Administration of Sponsored Capstone Engineering Design Programs and Their Impact on the University — Industry Interface."

Prof. Mark Spong was invited to present a paper, "Feedback Linearization of Flexible Joint Robot Dynamics," June 4 at the Robotics and Expert Systems Symposium in Pittsburgh, Pa.

Prof. Scott Burns has received a grant from the Technical Commercialization Center, Southern Illinois University, for analysis of an emergency rescue tool used to free victims of automobile accidents.

Prof. Mark Spong was a participant in a Workshop on Control and Identification June 8-15, at ICASE, NASA Langley Research Center.

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Engineering Open House To Be Held On March 4-5

Theme for the 1988 Engineering Open House to be held on the weekend of March 4-5 is "Accept The Challenge." It is anticipated that more than 20,000 visitors will attend the event.

The UI College of Engineering annually holds the event for high school and college students, parents and the general public. Thousands of projects and exhibits are prepared to show the tremendous advances being made in the technological world.

This year the GE department is planning an increase in student involvement and expects to attract the largest number

of visitors in history.

EOH project for GE will be headed by Illinois Society of General Engineering's Laura Hoffman, Morton Grove; and Gamma Epsilon's Bob Kosberg, Urbana.

College exhibits will be open from 9 a.m. to 4 p.m., Friday, March 4 and from 9 a.m. to 4 p.m., Saturday, March 5. It should be an exciting event and visitors are invited to come and see how engineering students "Accept the Challenge."

JETS Programs Promote Interest in Engineering

Junior Engineering Technical Society is a non-profit organization that promotes interest in engineering, technology and science among talented high school students. It sponsors two summer sessions at the University of Illinois at Urbana-Champaign, supports the National Engineering Aptitude Search test (NEAS), and conducts other motivational and guidance activities.

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, will be administered by the American College Testing Service. This test is designed to indicate aptitude for engineering study. Notices are sent to the high schools where students can select their test date based on their location.

The JETS state office will continue to develop engineering design competitions among high schools. This office has relocated to Engineering Hall with Paul E. Parker as the State Director and David L. Powell as the State Coordinator.

GE Alumni Remain Loyal

GE graduates posted the highest percentage of memberships in the UI Alumni Association than any other UIUC constituent group. A total of 1,048 members were recorded out of 2,327 graduates. There are 762 life members among the GE total.

Receive Promotions

Three General Engineering faculty members, W. Brent Hall, Manssour H. Moeinzadeh and Henrique L.M. dos Reis, all assistant professors, have been promoted to associate professors.

Three Staff Members Named to GE Faculty

Three new staff members have been appointed to the General Engineering faculty. All received the rank of assistant professor.

Dan Thompson who spent last year in the department as a visitor was appointed to the permanent staff. A native of West Virginia, he received the B.S., M.S. and Ph.D. in mining engineering from the University of West Virginia.

Thompson's primary teaching area is Introduction of

General Engineering Design.

A native of St. Paul, Mn., Deborah Thurston comes to the U. of I. from Massachusetts Institute of Technology. She received a B.S. in civil engineering from University of Minnesota, M.S. and Ph.D. in civil engineering from MIT.

She teaches Economics Analysis for Engineering Decision

Making.

Mark Strauss who is a native of New York City has a joint appointment in GE and the Division of Rehabilitation Education Services. He was last at the Veterans Administration Hospital in Dallas where he was a bio-medical engineer.

Strauss received a B.S. in mechanical engineering from University of Virginia and Ph.D. from University of Texas, Arlington. He also has done additional work in rehabilitation engineering both at Virginia and at the Health Science Center, Dallas.

He teaches Engineering Graphics I in GE.

List GE Teaching, Research Assistants

There are 23 student teaching or research assistants in the Department of General Engineering for the fall semester. They are:

Teaching Assistants — Dean Brusnighan, Gardner; Spiro Deligiannis, Aurora; Stephen Dowd, Urbana; Robert Flanigan, Downers Grove; Ethan Franklin, Barrington; Julie Furmanek, Arlington Heights; Fred Jewell, Rolling Meadows; Kurt Koenig, Oak Park; Robert Leland, Los Altos Hills, Ca.; Shelley Morgan, Buda; Eve Sierocki, Palatine; Michael Simmons, Chillicothe; and Karin Weidner, Charleston.

Research Assistants — Kimberly Kay Adams, Galesburg; Andrew Aswad, Downers Grove; Matthew King, Bloomington; Vladimir Kokotovic, Belgrade, Yugoslavia; Timothy Moore, Joliet; Janice Mueller, Cary; Eric Odden, Woodstock; Andre Pavkovic, Glenview; William Scheid, Chicago; and David Slowinski, Chicago.

In addition, Phyllis Keys, Tupelo, Ms.; and Thomas Tirpak, Glenview, are fellowship students. Paul Jacobs is a grading assistant.

Prof. Scott Burns presented a paper, "Practical Application of the Integrated Approach of Shape Optimization," at the Sixth Annual ASCE Structures Contress, Aug. 17-20 at Orlando, Fl.

Prof. Mark Spong was invited to Mexico City on Nov. 21 to present a short course on the Control of Robot Manipulators at CIMVESTAV, the Research Center for Advanced Studies of the National Polytechnical Institute of Mexico.

Digital Controller Tested at Colorado Power Plant



Shown before the turbine shaft in the turbine pit of the Mt. Elbert Power Plant in Colorado are (L to R); Prof. Wozniak, Greg Orelind, Louis Wozniak, Jay Agee and Terry Whittemore, both of the Bureau of Reclamation; and Mark Vogt.

Field testing of a digital governor for hydrogenerators was conducted this summer at the Mt. Elbert Power Plant in Colorado by Prof. Louis Wozniak and three research assistants.

The digital controller was designed and implemented in the Department of General Engineering under terms of a twoyear \$250,000 grant from the U.S. Bureau of Reclamation.

The research has entered its final phase with the most recent field test during which the plant's analog governor was replaced by the digital controller.

Final testing of the project is scheduled at the same site in November.

Faculty Notes

Prof. Louis Wozniak and J. Jaeger have co-authored an article "Maximum Slew-Rate Control for Hydrogenerators" that appeared in the April 1, 1987, issue of the Transaction ASME Journal of Engineering for Gas Turbine and Power.

Prof. Henrique Reis was an invited participant in the Second Acoustic Emission/Forest Products Workshop held at the University of California - Forest Products Laboratory, Richmond, CA, in September, 1987.

Prof. Manssour H. Moeinzadeh presented a paper entitled "Development of a Robotic Feeding Device for Disabled Individuals" at the 10th Annual Conference of the Rehabilitation Engineering Society of North America in San Jose, CA, in June 1987.

Prof. Mark Spong was chairman and organizer of a session on robotics at the 25th Allerton Conference on Communication, Control and Computing Sept. 30-Oct. 2, Monticello, IL.

Prof. Manssour H. Moeinzadeh has been elected by the American Society of Biomechanics program chairman and host of the 12th Annual National Meeting of the society. It will be held at the University of Illinois, Urbana-Champaign, in September 1988.

ALUMNI NOTES

- 1932 Fred Prusow, retired and residing at 511 32nd St., San Francisco, 94121, points out on the 50th anniversary of the Golden Gate Bridge that he was one of several UI engineering graduates that worked on its construction. In addition to Prusow, Prof. Charles Ellis, bridge designer; Russ Cone, resident engineer; John Blondin, Ed Davenport and Charles Kringe, all civil engineers, worked on the bridge.
- William H. Eddy has moved to 21211 125th Ave., Sun City West, AZ. He retired in 1978 as a manufacturers representative for product lines purchased by electric utilities. Previously he was employed by the Teletype Corp. in the Development and Research Organization.
- Kenneth E. Mast retired on July 1 after 40 years with Jens Olesen and Sons Construction Co., Waterloo, IA. He was chairman of the board at the time of his retirement. His new address is 1001 E. Lois Lane, Phoenix, AZ 85020.
- William A. Chittenden has been elected to the National Academy of Engineering, the highest professional distinction that can be conferred on an engineer. Chittenden was recently named Senior Partner of Sargent and Lundy, Chicago. He joined the firm in 1952 and was partner and Director of Services at the time of his promotion.
- Richard W. Osborne has retired as Product Engineering Manager of the RCA, color picture tube plant in Marion, IN. He resides at 507 Snowberry Ct., Noblesville, IN 46060.
- Wendell C. Hildenstein who recently retired, has moved to 33 Chinkapin Circle, Homosassa, FL 32646.
- 1955 Walter W. Faster, Vice President and Director of Corporate Growth and Planning for General Mills, Inc. has been re-elected vice chairman of the Volunteers of America, Inc.
- Myron J. Bernard has been named president of MJB Inc., Clayton, MO. The firm is an international resource for construction services on an "as needed" basis. His new address is P.O. Box 1232, Fenton, MO 63026.
- 1963 Thomas E. Dow has been named Director of Road Tire Operations World Wide for the Goodyear Tire and Rubber Co., Akron, OH.

Todd S. Parkhurst has joined Schiff Hardin and Waite, a 160-lawyer firm with offices in Chicago and Washington, as a partner in charge of the firm's Intellectual Property practice. A registered patent attorney, he formerly was with Jenner & Block.

Robert D. Leonard has accepted a position as Midwest Regional Manager for Mitek Systems Corp., of Carrollton, TX, supplier of network connectivity hardware and software. He was previously with AT&T as a District Manager, General Printer Product Management, Data System Division. Leonard resides at 1065 Spruce St., Winnetka, IL 60093.

James R. Sachtschale, MS '66, is a senior staff engineer with Santa Fe Energy Co., Santa Fe Springs, CA.

- Lois B. Roberts President of Lois B. Roberts P.E. Consulting Engineers, Westport, CT, has been named President of Connecticut Engineers in Private Practice. She worked for large engineering consulting firms in Stamford, CT, Baltimore, MD, and San Francisco, CA, before starting her own firm in 1974. Roberts is licensed to practice in Connecticut, New York, Maine, and California.
- 1967 Richard Bachta, 1029 Commodore Dr., Virginia Beach, VA, is in the U.S. Navy. He recently received an MBA from Old Dominion University.
- Word has just been received that Ronald C. Morrison, MBA '72, passed away on February 14, 1986, of a massive heart attack. He had been a kidney transplant patient for nearly 12 years. He was 42 years old and lived in Chicago.
- Bruce A. Huber, MBA '74, Harvard U. is vice president-consumer products, Zenith Electronics Corp., Glenview, IL. He lives at 716 White Willow Bay, Palatine, IL 60067 with his wife Joyce, B.Ed. '73 and M.Ed. '74, and their two sons.

Roger L. Shook has been named Director of Registration Services of The Jockey Club, 380 Madison Ave., New York City 10017. He has moved to 51 Leroy Ave., Darien, CT 06820.

Richard Wiand is senior project engineer with Frito Lay Inc., Dallas, TX. His address is 3217 Rosedale, Dallas, 75205.

- 1972 John M. Munson, 7431 Brenel Dr., Mentor, OH 44060 has accepted a position as Manager, Engineering Projects, Gould, Inc., Cleveland, OH.
- 1974 Kathryn A. Davis, MSCE '75, MBA '86 Harvard U., has established a new firm, Engineering Management Consultants, New York City. It addresses the special business needs of small to medium-sized design firms. Formerly Manager of Technical Services for ASCE Headquarters in New York City, she resides at 245 E. 40th St., Apt. 7G, New York City 10016.

Michael E. Kerr has been named Product Manager, Union Carbide Corp.-Linde Division for oxygen, nitrogen and argon gases in the Southern Region. He recently moved to 181 Lounsburg Rd., Ridgefield, CT 06877.

Paul Lehman, vice president of the Macom Corp., Naperville, IL, has been elected to the Board of Trustees of Illinois Benedictine College, Lisle, IL.

1975 John W. Ackley, II, MBA '85 U. of Iowa, has moved to 4020 25th Ave., Rock Island, IL 61201. He is a senior engineer, John Deere Harvester Works, E. Moline, IL.

Kenneth M. Grachan, M.S.E.E. '80 Ill. Institute of Technology, has been promoted to engineering section head in charge of flight control systems for the Boeing 737 and McDonnell Douglas MD80 series aircraft at Honeywell, Inc. Sperry Commercial Flight Systems Division, Phoenix, AZ. He resides at 10578 E. Mercer Lane, Scottsdale, AZ 85259.

Gregory P. Konneker, Advanced Professional Certificate in Business '87, Pace U., lives at 6 Westwood Drive, Danbury, CT 06811. He has been named Business Systems Consultant for the Information Management Department-Financial Services, General Foods Corp., White Plains, N.Y.

1976 John B. Holz, MS '81, is now manager of field sales operations for IBM Industry Systems Products Division, Milford, CT. Recently married, he lives at 67 Dawn St., Fairfield, CT 06430.

Thomas W. Tobin, a partner in the 300-lawyer New York law firm of Wilson, Elser, Moskowitz, Edelman and Dicker, has moved to Tokyo to open and manage the firm's Tokyo office. Parents of a new son, he and his wife will reside at Homat Excelsior #301, 4-11, Mita, 2-Chome, Minato-Ku, Tokyo 108, Japan.

Bruce W. Winter has been promoted to manager, Process Engineering, Flo-Con Systems, Inc., Champaign. He is responsible for industrial engineering, tooling and process development. Winter has been with Flo-Con for the past

seven years.

1978 James E. Broom is a sales representative of Hewlett Packard Co., 13001 Hollenberg Dr., Bridgeton, MO. His address is 549 Shadowridge Dr., Ballwin, MO 63011.

Dan Honeman, MBA '85, DePaul U., has moved to 122 Michael Manor, Glenview, IL 60025. He is employed by Economy Mech Industries, 77 Wheeling Rd., Wheeling, IL.

Bradford A. Kroll has accepted a position as District Sales Manager, Dresser Industries, Sidney, OH after eight years with Ingersoll-Rand Co. His address is 9924 Four Mile Creek, Charlotte, N.C. 28105.

Steven A. Schudel, 10211 Lone Tree Dr., Anchorage, AK 99516, and his wife are parents of a new daughter, Carissa Amy.

1979 Kelly E. Kupris Anderson is now residing at 35411 Shagbark, Glen Ellyn, IL 60137.

Gary A. Gluck, MBA '85 Cal. State-Northridge, 10221 Oklahoma #29, Chatsworth, CA 91311, is teaching economics part-time at Moorpark College, N. Hollywood, CA. He also is a senior field engineer for the Square D. Co.

James R. Hayes is a project manager, Western States Construction Co. Inc., Loveland, CO. He is working toward a Master's degree in Construction Management at Colorado State University. Hayes and his wife, an engineer with the City of Ft. Collins, reside at 405 E. Laurel St., Ft. Collins, CO 80524.

Daniel K. Mankivsky has moved to 30W683 Woodwind Dr., Naperville, IL 60540. He is a sales engineer with Walker Process Corp., Aurora, IL.

1980 David V. Adams, MSME '83, University of California-Berkeley, has joined KLA Instruments Corp., San Jose, CA, as a member of the technical staff to start up a division to "focus" on the printed circuit board inspection market. He lives at 1024 Valencia St. #6, Sunnyvale, CA 94086.

Roger P. Coppel has been promoted to Senior Systems Engineer at Sargent & Lundy, a Chicago-based engineering firm specializing in the design of electric power generating stations, transmission lines and related facilities. He lives at 941 S. Quincy, Hinsdale, IL 60521.

Frank C. Fuller is an Action Officer, USAF, PACAF HQ/XP, Hickam AFB, Hawaii. His address is 94-337 Alula Place, Mililaut, HI.

J. Brian Galley has moved to a new address: 5906 Leanne Lane, McFarland, WI 53558. He is an environmental engineer with the Wisconsin Department of Natural Resources, Madison, WI.

Jane E. Kienstra is now living at 175 Freeman St. #911, Brookline, MA 02146.

David J. Marr, JD '87, Kent College of Law, is an Associate Attorney with Trexler, Bushnell, Giagiorgi and Blackstone, Ltd., Chicago. He resides at 7223 Lemoyne Ave., River Forest, IL 60305.

Silvana A. Medina, MBA '84 Harvard U., is employed by Hewlett-Packard in Cupertino, CA. She is responsible for managing the design and development of a sales representative training course relating to H.P's networking products. Her home address is 1678 Kennewick Dr., Sunnyvale, CA 94087.

Henry A. Neicamp is a sales engineer with Pennzoil Products Co. He lives at 1601 W. Dewey, Marion, IL 62959.

Navy Lt. John W. Peterson has recently completed the Basic Surface Warfare Officer's School at the Surface Warfare Officer School Command in Newport, Rhode Island.

Brian J. Quinn, 1345 Stanton Ave., Whiting, IN 46394, is a maintenance engineer for Amoco Oil Co., Whiting, IN.

Tina Fay Wolfe Holliday has received an M.S. in Civil Engineering (structures) from San Jose State University. She resides at 43155 Isle Royal St., Fremont, CA 94538.

Gregg D. Johnson, JD '87 DePaul U., is a sales engineer with Dresser-Rand Co., Elmhurst, IL. He lives at 312 Elm Park, Elmhurst, IL 60126 and has recently been admitted to the Illinois and the Federal Bar.

Brian J. MacGregor of Decatur, IL, has been named a salesman for Cardinal Pump Co., St. Louis, MO.

1982 Paul V. Fryling is studying towards an MBA at the University of Wisconsin, Madison. He resides at 1010 K Sunnyvale Ln., Madison, WI 53713.

Mark Hasen, MBA '84, has accepted a position as senior financial analyst at Motorola, Inc., Schaumburg, IL. He has recently moved to 1645 Henley Court, Wheeling, IL 60090. Hasen was employed by the Sundstrand Corp. from 1984 to 1987.

Gary A. LaFine is now residing at 11010 Foley Blvd., Coon Rapids, MN 55433. He is an application engineer for Onan Corp., Minneapolis, MN. He provides application engineering support to several original equipment manufacturers to design engine installation systems.

David P. McGinnis, MS physics '83; MSEE '84 Univ. of Wisconsin, Madison; Ph.D. in EE, Univ. of Wisconsin, has been appointed to a post doctoral position at the University of Wisconsin, Madison. He was married in May 1987 to Marla Bass, BSEE '82.

Robert S. Dinse is a senior development engineer for Oshkosh Truck Corp., Oshkosh, WI. Newly married this past summer, the couple resides at 6323 Highway M, Winneconne, WI 54986.

Dave Ernst, 2341 W. Solero Dr., #1023, Tucson, AZ 85741, has enrolled in the University of Arizona law school.

Chris A. Irpino has accepted a position as staff engineer in plant engineering services with Eli Lilly & Co., Indianapolis, IN 46256.

Paul Henkels, MS '84, is a research staff engineer with USG Corp., Libertyville, IL. Married to Lori Zimmanck Henkels, BS Elem. Ed. '81, the couple recently had their third child.

Alan E. Landmann, MS '85, is a specialist engineer with Boeing Co., Seattle, WA. He lives at 2724 98th Ave. NE, Bellevue, WA 98004.

Samuel G. Papandreas, DDS '87, Loyola University, Chicago (Magna Cum Laude and class valedictorian), is enrolled at Baylor University, Dallas, studying toward an orthodontic specialty and M.S. in dentistry. His address is 5454 Amesbury, Apt. #2302, Dallas, TX 75206.

Daniel R. Smith is a service engineer for GMC, Cadillac Division with responsibilities for product safety coordination. He credits GE 392 for having been "a very usable course for me."

Marc A. Spoor has been promoted by his firm, Northrop Defense Systems Division, to Product Test Support Group Leader and Program Project Manager for the B-1B AN/ALQ-161. (The AN/ALQ-161 is the defensive electronics countermeasures suite used by the B-1B to defend itself against hostile radars.) Spoor and his wife, the former Sarah Spencer, BS LAS '84, are the parents of their first child. They reside at 1099 Byron Lane, Apt. 5, Elgin, IL

Vivian C. Spraggins has moved to 7807 S. Cornell, Chicago, IL 60649. She is a traffic engineer II for the City of Chicago.

Gregg T. Swanson, 2502 E. Oltorf #1424, Austin, TX 78741, expects to complete his MBA at the University of Texas in May 1988.

Pamela D. Anthony is an electronics engineer-1984 software support for the F-15 at WR-ALC/ MAITCA RAFB, GA 31098.

David Changnon is a doctoral candidate in Climatology at Colorado State University. His address is Apt. 10, 1200 E. Stuart, Ft. Collins, CO 80525.

Jerry K. Corbier is vice president of Kinetic Energy Development Corp., St. Louis, Mo., a new company he has started with two others for developing alternate energy power plants. The firm designs, implements, finances, owns and operates power plants that utilize fuels such as municipal waste, industrial waste, toxic waste, coal and wood waste. The new company has been commissioned by the State of Missouri to develop an implementation plan for a co-disposal facility for solid waste and sewage sludge. Also the firm is developing an \$85 million waste-to-energy plant in the St. Louis area.

Andrew M. Hartunian has been named project engineer at Inland Steel, E. Chicago, IN. He lives at 911 S. Bell, Chicago, IL 60612 and is completing studies towards a Master's degree at UI-C.

Kevin W. Krak, MBA, Georgetown U., has accepted a position as construction manager with The May Company, St. Louis, MO. His address is 35100 Paupukkeewis, McHenry, IL 60050.

Glen T. Mori has accepted a new position and moved to a new address. He is Product Manager, Semiconductor Production and Test Equipment, Horiba Instruments, Sunnyvale, CA. He lives at 600 El Camino Real #3, Burlingame, CA 94010.

Todd P. Sheppelman has been named Account Manager for International Sales, Delco Remy Div., GMC, Anderson, IN. He resides at 14256 Adios Pass, Carmel, IN 46032.

Beth Yeager Ahern, 2106 N. Scott St., #45, Arl-1985 ington, VA 22209, has been promoted to Lieutenant, Junior Grade, by the U.S. Navy at the Defense Intelligence Agency, Washington, D.C. She was recently married to Lt. Brian Ahern.

Jeanne Staudacher Arreazola has moved to 805 Waterford Court, Lake Zurich, IL 60047.

Kaan R. Aytogu, MS '85, is a consultant with the Prime Ministry, State Planning Organization, Ankara, Turkey. His home address is Cinnah Caddesi No: 38/14, Cankaya, Ankara, Turkey.

Howard L. Danzyger, MS '87, Georgia Institute of Technology, is a newly appointed associate engineer in Systems Engineering Department — Analyses and Simulation Group, Litton Integrated Systems, Hebron, KY. He resides at 511 W. Chelsea #6. Ft. Mitchell, KY 41017.

Joseph J. Kotowski, MS ME '86, Northwestern U., has accepted a position as manufacturing engineer with Ford Motor Co., Hapeville, GA. Recently married to Rita Lucas, BS LAS '84, the couple's address is 802 Club Parkway, Norcross, GA 30093.

Donna R. Lee is a manufacturing systems engineer, Delco Electronics Corp., Flint, MI. She lives at 6074 Fountain Pointe #11, Grand Blanc, MI 48439.

Paula R. Ghilarducci is an Assistant Project 1986 Engineer with Uarco Business Forms, Barrington, IL. She was recently married to Christopher L. Markos, BS ME '85. They live at 870 Cherry Valley, Vernon Hills, IL

John M. Lach, 810 E. Crabtree, Arlington Heights, IL 60004, is a stock options trader at the Chicago Board Options Exchange for DGHK Broker Services.

Tamara L. Ross has a new position as a mechanical engineer, Pollution Abatement Control with Advanced Technology, Inc., Arlington, VA. Her address is 9412 Killarney Lane, Apt. 102, Gaithersburg, MD 20877.

Chris Weber has been promoted to project engineer with Seneca Foods Corp., Mountain Home, N.C. His home address is #24 Tennis Ranch Road, Hendersonville, North Carolina 28739.

Edward A. Wells has been named an engineer at McDonnel Douglas Corp., St. Louis, MO. He has moved to 502 Sarah Lane Apt. E, St. Louis, MO 63141.

Jim Dickinson has been employed as a civilian engineer at the USAF Flight Test Center, Edwards AFB, California. He center tests and evaluates all aircraft and systems entering the Air Force inventory. He lives at 843 W. Ave. L, #7, Lancaster, CA 93534.

Philip Sepulveda is employed as a sales and marketing engineer with Instron, Canton, MA. He resides at 88 Exeter St., Apt. 36, Boston, MA 02116.

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