



GENERAL ENGINEERING NEWSLETTER

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

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GE ALUMNI OFFICERS ELECTED AT FALL MEETING

Richard W. Reynolds, Rockford engineer, was elected president of the General Engineering Constituent Alumni Association at the annual Fall meeting of the Board of Directors on October 5.

A graduate with a B.S. in General Engineering in 1953 and an MS in 1958, Reynolds is Chief Research Engineer, Mechanical, Sundstrand Advanced Technology Group.

He was named recipient of the Distinguished Alumni Award by Gamma Epsilon in the Spring 1989.

Other officers elected were Gary Allie, '68, Chicago, vice president; Bob Roads, '71, Jacksonville, secretary-treasurer; and G. R. "Dick" Armstrong, '64, Aurora, representative to U.I. Alumni Association Board of Directors. The position of second-vice president will be filled at the Spring meeting.

At the meeting the Board heard Prof. Dave O'Bryant make a report on department enrollment. He discussed the trend of transfer patterns and predicted that future growth would be at the graduate level.

Department Head T. F. Conry said the department was near the limit on undergraduate enrollment as he discussed the long-term outlook for the department. He cited the severe budget restraints and said there would be emphasis to expand the graduate program to the doctoral level.

Barb Timbers, Burr Ridge, IL, junior and vice president of ISGE, attended the meeting and gave a brief outline of the organization activities to that point.

The board will discuss a by-law change to establish two-year staggered terms for officers at the Spring meeting in May.

Following the session the Board attended the Illinois—Minnesota Homecoming football game.

GE Program Receives Honor

The Joe Wyatt Challenge Committee has honored a General Engineering Program as one of the 100 Joe Wyatt Challenge Success Stories.

The entry, "Interactive Microcomputer Graphics for Engineering Graphics Instruction," was submitted by Profs. Michael H. Pleck and Thomas R. Woodley.

Official announcement of the award came at the EDUCOM '91 Conference Oct. 16-19 in San Diego, CA. The honored programs will be published early in 1992.

GE Teachers Cited

Seven members of the GE Department were rated excellent by students for Fall 1991. They are: Assoc. Prof. Scott Burns, Adjunct Lecturer Bill Woodard and teaching assistants R. Bogaerts, R. Bryant, A. Fitzmorris, M. Lopez and M. Scott. Bryant and Scott were rated outstanding.

To Place New Emphasis On Industrial Sponsors for Senior Design Projects

For the past 30 years, one of the cornerstone courses of the General Engineering curriculum has been GE 242 Project Design. It has been administered for the past decade by Profs. Rodney D. Hugelman and L. Daniel Metz.

Required of students in their final semester, teams of two to four students work to provide engineering solutions to actual problems supplied and supported by industry.

The UI General Engineering program has earned wide acclamation because it is unmatched in its approach of having an individual faculty member on each project, having almost all the projects financed by industries and because of the large number and diversity of the industrial sponsors.

Now with the impending retirement of Prof. Hugelman, the department is evaluating the course for the purpose of raising the comprehensive program from its traditional excellence to the next level.

Profs. James V. Carnahan and Roland L. Ruhl have taken over the direction of GE 242 and are reviewing every aspect of the course's organization.

"We consider this review to be an opportunity for constructive transition," Prof. Carnahan said. "Profs. Hugelman and Metz have brought the course to the place where it is unmatched anywhere in the country. Now we want to build on that reputation to become even more valuable not only to our students but to Illinois industry as well."

Their immediate goal is to have a full docket of sponsored projects from industry allowing for more "picking and choosing," to have a larger percentage of funded projects from industry and to increase the number of projects that more aptly fit faculty interests and students' abilities.

"We face much more intense competition from other schools that we have had in the past," Prof. Ruhl says.

Under the new administrative plan, the approach to industry will be very methodical, allow for longer lead-in times and widen approach to alumni.

Carnahan and Ruhl are presenting seminars in selected geographical areas outlining departmental programs and strengths, especially emphasizing students' involvement in GE 242.

With his extensive industrial contacts, Ruhl is approaching Illinois companies directly for potential funding not only for the senior design projects but for graduate assistantships.

"In addition to continuing our willingness to work on those projects suggested ad hoc by industry, we will also attempt to suggest solution capability which will be closely aligned with the areas of interest and expertise of our faculty," Ruhl said. "This will be beneficial in allowing a more effective expansion of possible articulation at the graduate and IRA levels."

(Continued on page 2)

From the Department Head



The interaction between industry and the faculty and students of the Department of General Engineering and industry is a very important component of our programs of teaching and research. For over 20 years, the Department has had a very strong relationship with industrial firms at the state, regional and national levels, which has provided support for our capstone course in Project Design that all seniors take prior to graduation. The course, in its present form, was initiated by Professor Bernt O. Larson in the late 1960's and was then directed by Professor Roland L. Ruhl in the early 1970's. These two individuals provided the vision and the direction that this course would take over the next 20 years. After Professor Ruhl left the faculty to take over his family's business, the course was directed by Professor David O'Bryant and myself. In 1978, Professors Rodney Hugelman and Daniel Metz assumed responsibility for the project design activity and provided the leadership for this course through the 1980's. Professor Hugelman recently announced his decision to retire next May, and this provided a natural point of transition for the leadership of this course and related activities. In July, I asked Professor James Carnahan and Adjunct Professor Roland Ruhl to take on the direction of this program.

The Senior Design Project has traditionally been the capstone course for General Engineering seniors, and, by any measure, it has been a resounding success over these past 20 years. The projects provided by industry have rendered the extra measure of richness and realism that are so important in the education and formation of young engineers. The involvement of the entire faculty of the Department has contributed in no small measure to the strength and acceptance of this program.

The active support of industry for our educational program has been extremely important to the Department for it has opened up new avenues of investigation, provided first-rate educational experiences for our students, and has provided opportunities for further development of research projects for the faculty. The close relationship between the Department and our industrial sponsors allows for easy communication between the faculty and our colleagues in industry, and facilitates a two-way transfer of technology and information. The transfer from industry to university is primarily in the form of important technical problems that need to be solved in design and manufacturing, whereas the transfer from university to industry is in the form of potential solutions to the problems presented by industry and the opportu-

Engineering Open House To Be Held February 28-29

The annual Engineering Open House is scheduled for Friday and Saturday, Feb. 28 and 29, 1992.

Theme for this year's event will be "Unleashing Tomorrow's Potential."

Representatives from ISGE on the EOH Committee are Mike Bishop, freshman, LeRoy, IL, and Louis Luangkesorn, senior, Morton Grove, IL.

Each year hundreds of high school students, parents, faculty advisors and the public throughout the state visit campus to view the dozens of exhibits at the popular annual event.

G.E. 242

(Continued from p.1)

Although the design project organization will remain traditional, the base is being broadened. Manufacturing industries are especially being targeted.

"With the diverse backgrounds of many of our students, we also intend to address marketing and productivity issues along with the design-oriented programs we have done in the past," Carnahan said. "Currently about half of the faculty is involved in the Fall and almost all in the Spring. With increased enrollment in the department we may need to seek more faculty involvement."

The organization of the course with meetings between students and faculty advisors twice a week, two or three subgroup reports, frequent visits to the sponsoring companies and a final report with industrial representatives present will be retained.

Carnahan added that the traditional benefits of interaction with industrial sponsors, increased administrative and communication skills, teamwork and transition from the academic to the "real world" will certainly be retained.

Also he said these projects can lead to applications of methods from multiple disciplines, which emphasizes the value of our students' backgrounds.

nity to interact with bright and enthusiastic students who, coincidentally, are in the market for a job. We have found the senior project experience to be beneficial in the maturation process that our seniors are going through, especially in their last semester when they are in a period of transition from student to practicing professional.

Overall, industrial interaction is very important for all parties, for the industry, for the faculty, and for the students. It provides a window for us in the University on the "real world" that is absolutely essential if we are to keep our programs of teaching and research focused on the true needs of society. It is important that industry take some responsibility for the education of our engineers.

It is important to our students that they be exposed to the problems and the pressures that are faced in industry, which can season them and focus their ways of thinking about engineering problems. It is best for the student that their first experience on a "real" engineering project be done in the sheltered environment of the University, where mistakes can be made, and corrected, without affecting one's career.

If you are interested in having your company participate in this program, please contact me.

*Thomas F. Conry
Professor and Head*

ISGE Elects Officers For the '91-'92 Year

Officers for the 1991-92 academic year have been elected by the Illinois Society of General Engineers.

Dave Meyer, senior from Inverness, will serve as president.

Others are: Barb Timbers, junior from Burr Ridge, vice president; Alex Fong, senior from Inverness, treasurer; and Keith Fischer, junior from Des Plaines, secretary. Rudy Piskule, senior from Dwight, and Julie Mueller, junior from Belleville, will be ISGE representatives to the Engineering Council.

Prof. David O'Bryant is faculty advisor.

Ruff Award Winner

Mindy Beth Souden, Arlington Heights, IL, was recipient of the Elizabeth Ruff Award at the Spring GE Honors and Recognition Banquet last Spring. The prize consists of \$500 cash and goes to a sophomore or junior woman student who has earned a minimum of 3.75 grade point average and shows sincerity, unpretentiousness, consideration and supportiveness.

Faculty Notes

Professor Deborah Thurston

Prof. Deborah Thurston has been busy expanding the teaching and research activities of the Department in the area of Design Decision Making.

A new graduate course in General Engineering developed by Professor Thurston has been formally approved by the University, "Decision Making with Multiattribute Utility Analysis," GE 444, after being taught as an experimental course for four years.

Research related to the material taught in the course is carried out in the Decision Systems Laboratory. Articles which describe the work will appear in current or upcoming issues of technical journals:

— "Design Evaluation of Multiple Attribute Under Uncertainty," D. L. Thurston and T. Liu, in Systems Automation: Research and Applications.

— "A Formal Method for Subjective Design Evaluation with Multiple Attributes," D. L. Thurston, in Research in Engineering Design.

— "Fuzzy Ratings and Utility Analysis in Preliminary Design Evaluation of Multiple Attributes," D. L. Thurston and J. V. Carnahan, in ASME Journal of Mechanical Design.

— "Integration of the Analytic Hierarchy Process with Integer Linear Programming for Long Range Product Planning," D. L. Thurston and Y. T. Tian in Mathematical and Computer Modelling.

— "Intelligent Evaluation of Design for Manufacturing Cost," D. L. Thurston and J. V. Carnahan, book chapter in Intelligent Design and Manufacturing.

Professor Thurston has also recently presented the following papers at technical conferences:

— "Integration of Utility Analysis and Rule-Based Systems for Design Evaluation," with C. Crawford and "Design Optimization via the OR/AI Interface," at NSF Design and Manufacturing Systems Grantees Conference, University of Texas at Austin, January 1991.

— "A Method for Integrating Utility Analysis into an Expert System for Design Evaluation Under Uncertainty," with Y. T. Tian, Seventh Conference on Uncertainty in AI (1991), UCLA, Los Angeles, July 1991.

GE Fall Enrollment Remains the Same With 606 in Attendance

Enrollment in the Department of General Engineering held steady for the Fall Semester 1991 despite a continued decline for the College of Engineering.

Undergraduate enrollment totalled 606, the same as a year ago. In 1989, the total was 597 and in 1988 it was 554.

Graduate enrollment has remained the same at 31 over the past three years. However, the total fails to include those enrolled in the combined GE-MBA program.

"Unfortunately resources in recent years has not kept pace with the numbers of students we could enroll. With present staff and budget, we plan carefully to maintain our traditional quality," a department spokesman said.

College of Engineering totals have dropped in the past four years. This year's 4,794 compares with the 4,857 in 1990, 4,924 in 1989 and 5,223 in 1988.

Of the 14 curricula in the College of Engineering, eight showed declines in enrollment and only five recorded increases. One remained the same.

GE enrolled 177 new freshmen, 33 second semester freshmen, 112 sophomores, 182 juniors and 102 seniors.

All 31 graduate students were enrolled at the M.S. level.

There are 2,151 graduate students enrolled in the College of Engineering, the largest graduate enrollment in the past four years.

UI Enrollment Shows Increase of 1 Percent

Enrollment at the University of Illinois rose to 36,139 this fall, compared with 35,766 at the same time last fall.

The 373 additional students represent a 1 percent increase. The increase is almost entirely due to additional enrollment in the Graduate College.

Overall graduate enrollment is 8,841, up 428 from last year. Students tend to stay in graduate school longer because of a weak job market.

Undergraduate enrollment is down by 79 from last fall, coming in at 26,366. That is slightly above the university's target of 26,000 to 26,300 undergraduates.

The size of the freshman class is 5,651, compared with 5,882 in the fall of 1990.

SPRING DATES TO NOTE

| | |
|---------------------|------------|
| Spring Recess | March 7-16 |
| Last Day of Classes | May 6 |
| Semester Exams | May 8-15 |
| Commencement | May 17 |

— "Design Evaluation and Optimization of Multiple Attributes," 1991 International Conference on Engineering Design (ICED 91), Zurich, Switzerland, August 1991.

— "Optimization of Design Utility," with J. V. Carnahan and T. Liu, ASME Conference on Design Theory and Methodology (DTM '91), Miami, FL, September 1991.

In November, Professor Thurston served on a National Science Foundation panel in Washington, D.C. to review grant proposals for programs in undergraduate education.

Faculty Notes

Professor Yong Se Kim

Prof. Yong Se Kim received a Best Paper Award for his paper "Form Feature Recognition by Convex Decomposition" at the ASME Computers in Engineering (CIE) Conference held in Santa Clara, CA, August 1991. The paper describes a novel method to recognize form features, which bridge between the engineering meaning and the geometry of parts, by using a convex decomposition called Alternating Sum of Volumes with Partitioning. Professor Kim and his research group at Solid Modeling Laboratory are working on the extension of the recognition method.

For 1992 CIE conference to be held in Detroit, April 13-16, 1991, Professor Kim is organizing technical sessions with focus on "Feature Based Modeling" and on "CAD/CAM Applications of Geometry." "Feature Based Modeling" session will include feature recognition, feature editing and feature-based geometric reasoning for product and process design applications. "CAD/CAM Applications of Geometry" session is intended to encourage the applications of fundamental geometric properties and operations, such as convexity, in computer-integrated product engineering activities.

Professor Juraj V. Medanic

Prof. J. V. Medanic has developed a new graduate course in control systems design entitled, "Design of Multivariable Control Systems." It covers basic design issues in multivariable design, singular perturbation and balanced realization based model reduction design of state feedback and output feedback controls based on minimization of selected performance measures (Hz, H-infinity and FH norm designs), and low order controllers design.

Prof. J. V. Medanic has been named Chair of the College of Engineering IVHS Seminar Organizing Committee. The committee will organize a series of seminars during this and the following academic year to help disseminate information and research accomplishments in IVHS (Intelligent Vehicle Highway Systems) which involves the application of control/communication/computer/image and signal processing in Traffic Monitoring and Control and in Vehicle Automation.

Recent Journal Articles:

(1) R.A. Paz and J. V. Medanic, "Design of Disturbance Attenuating Controllers: A Riccati Based FH Norm Optimization Algorithm," *Automatica*, Vol. 26, Sept., 1990, p. 909-913.

(2) D. Arnautovic and J. V. Medanic, "The Sequential Design of Different Multivariable Excitation Controllers in Multimachine Power Systems," *Electric Power Systems Research*, Vol. 18, No. 1, 1990, p. 37-46.

(3) R. Paz and J. V. Medanic, "H-infinity control in discrete time: State Feedback Control and Norm Bounds," to appear, *Int. J. Control*.

(4) R. J. Veillette, J. V. Medanic and W. R. Perkins, "Design of Reliable Control Systems," to appear in the March 1992 issue of *IEEE Transactions on Automatic Control*.

Prof. J. V. Medanic has presented the following Conference papers:

(1) R. Paz and J. V. Medanic, "A Reliable Control Design for Discrete-Time Systems," *Proc. IEEE Conf. on Decision and Control*, Boston, MA, June 1991.

(2) B. Diong and J. V. Medanic, "Dynamic Output Feedback Variable Structure Control for System, Stabilization," *Proc. IEEE Conf. on Decision and Control*, Boston, MA, June 1991.

Gamma Epsilon Elects 1991-92

Elizabeth Fikes, senior from Springfield, will serve as president of Gamma Epsilon for 1991-92.

Other officers include: Lisa Chandler, senior, Lansing, vice president; Anne Marsan, senior, Elmhurst, secretary; Dave Briglio, senior, Barrington, treasurer; and Lisa Mabry, junior, Champaign, publicity chairman.

Mark Maslov, junior, Hoffman Estates, was named representative to the Engineering Council and Joe Lohmar, graduate student, Mattoon will serve as Engineering Open House representative.

Prof. Brent Hall is faculty advisor and Irynne Vallejo, graduate student, Skokie, is graduate advisor.

On Homecoming Court

A General Engineering undergraduate was a member of the 1991 Homecoming Court during homecoming festivities on the UIUC Oct. 4-5.

Elizabeth Fikes of Springfield is president of Gamma Epsilon. She will graduate in December.

More Faculty Notes

(3) J. V. Medanic, W. R. Perkins and R. J. Veillette, "Design of Reliable Control Systems with Guaranteed Performance Rejection Properties," *Proc. IFAC Symposium on Design Methods of Control Systems*, Zurich, Switzerland, Sept. 4-6, 1991.

Professor L. Daniel Metz

Prof. L. Daniel Metz continues to work on his research interests in vehicle dynamics and control and vehicle aerodynamics. He has recently finished two papers (one with graduate student Kent Miller and Errol Shavers) on rollover dynamics.

He also continues to do consulting work for insurance agencies, manufacturers and others on vehicle dynamics and accident reconstruction.

In January 1992, Prof. Metz has agreed to serve as General Session Organizer for a new SAE Technical Highlight Seminar on vehicle dynamics before and after collisions. Prof. Roland Ruhl, also of General Engineering, will be a participant as well. Finally, he reports that son, Greg, is now a freshman in Mechanical Engineering at the University of Wisconsin-Madison, and daughter, Sara, a senior in economics at Smith College, Northampton, Massachusetts. At present, Sara plans to continue work for a Ph.D., so there will soon be another Dr. Metz!

Professor Manssour H. Moeinzadeh

Prof. Manssour H. Moeinzadeh presented a keynote lecture and an invited paper at the 4th Biomedical Engineering Conference held at Amirkabir University of Technology and Biomedical and Rehabilitation Engineering Research Center, Tehran, Iran, May 14-15, 1991.

As the program chairman for the 1991 Biomedical Engineering Division of the American Society for Engineering Education (ASEE), Prof. Manssour H. Moeinzadeh attended the 1991 ASEE Annual Meeting held in New Orleans, June 16-19. At this meeting Professor Moeinzadeh was elected a board member and chairman of the Biomedical Engineering Division of ASEE.

Prof. Moeinzadeh has been elected vice-chair of the College of Engineering Executive Committee. Dean W. R. Schowalter presides as the Chair of this committee.

Private Gift To Finance New Engineering Library

An \$18.7 million private gift to honor William Wallace Grainger, a pioneer in the distribution of electrical equipment and components, will construct the Grainger Engineering Library Information Center on the Urbana-Champaign campus.

The gift, one of the largest ever made to the university, was announced Oct. 11 at the 56th annual meeting of members of the UI Foundation and Presidents Council.

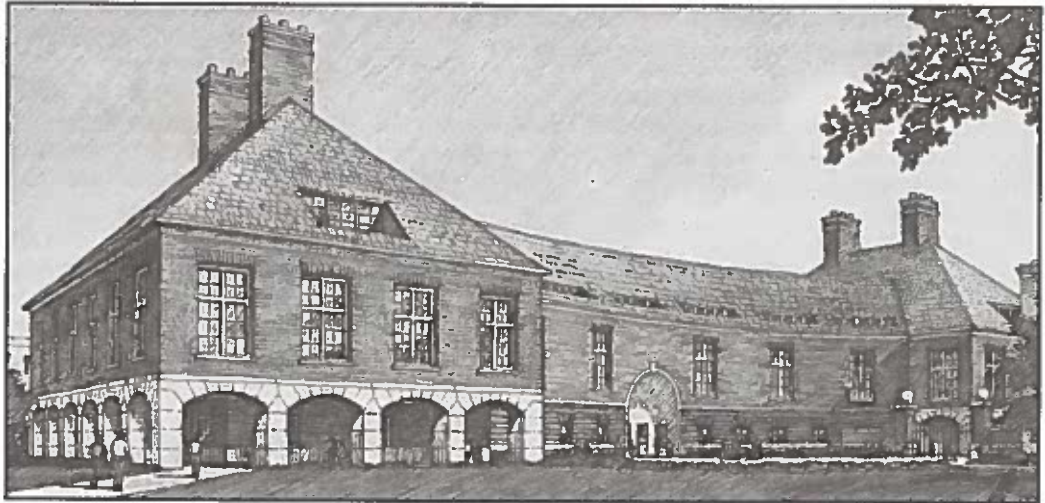
The new 120,000-square-foot facility will be named in memory of the late William Wallace Grainger, a 1919 electrical engineering graduate of the UI and the founder of W. W. Grainger Inc., Skokie, IL. Grainger served as president and chief executive officer for 40 years until his retirement in 1968, after which he served on the board of directors until his death in 1982.

The Grainger Engineering Library Information Center will be located on the southeast corner of Springfield and Burrill avenues in Urbana. Long-range plans call for Burrill Avenue to become a pedestrian walkway from Green Street to Springfield Avenue, adding an aesthetic new quadrangle to the North Campus area. The building itself will be the cornerstone of redevelopment of the area.

The building design features a central pavilion separating east and west wings housing two-story reading galleries near study space and seminar rooms. The mezzanine area in each wing will house the bulk of the current engineering library collection and provide shelving for 300,000 volumes plus 3,600 periodical titles now in Engineering Hall and at other locations.

The main circulation and information area will be located on the first floor. The Grainger Center will be anchored by an electronic information retrieval service and on-line catalog, which will complement the University Library system's existing on-line catalog. Scholars will have fingertip access to the accumulated scientific and engineering literature through remote and local on-line national and international data bases, including access to the full text of documents, in addition to periodical literature citations. Altogether, library users will have access to more than 75 million engineering and physical sciences article references, in addition to all campus library holdings and statewide materials resources. This enhanced computer capability, library officials said, will provide easy searching and timely data, while helping to redefine the role of the traditional library as an extensive information center.

(Courtesy of *Inside Illinois*)



More Faculty Notes

Prof. Moeinzadeh presented a paper entitled "A Novel Propulsion Device for A Human-Powered Water Vehicle" (co-authored with Andrew D. Aswad) at the 15th Annual Meeting of the American Society of Biomechanics held at the Arizona State University, Tempe, Arizona, Oct. 16-18, 1991. During this meeting he also chaired a session entitled "Knee Joint."

Professor Mark W. Spong

Prof. Mark W. Spong has received a NSF grant, "Instability Mechanisms in Adaptive Control of Robots and Teleoperators," in the amount of \$128,000.

Prof. Spong presented the Robotics and Automated Manufacturing Program seminar at UC-Berkeley, "Robustness of Adaptive Control of Robots," last January.

Prof. Spong spent the Spring Semester 1991 on sabbatical at The Laboratoire d'Automatique, Grenoble, France, and at The Lund Institute of Technology, Lund, Sweden. He also visited robotics programs at numerous universities and presented invited seminars at University of Annecy, France; University of Duisberg, Germany; University of Trond Luim, Norway; University of Swansea, Wales; University of Compiegne, France; University of Rome, Italy; and University of Naples, Italy.

While in Lund, Sweden, **Prof. Spong** gave a televised seminar, "Stability of Adaptive Control of Robots," seen by universities throughout Sweden. It was the first such seminar televised over a new video system donated by AT&T.

GE Retains Ranking In Alumni Membership

Graduates from the Department of General Engineering continue to rank second in the percentage of membership in the UI Alumni Association.

They also are tied for second in the percentage of paid members.

The 1,199 members from GE represents 47 percent of the eligibles and is second only to the 48 percent from the MBA program. A total of 870 graduates are life members.

The 44 percent GE paid membership is tied for second with the College of Commerce and Business Administration behind the 45 percent of MBA.

Membership totals are important as one dollar of each member's dues is returned to the GE Constituent Alumni Association for department activities.

GE ranks 16th in the 30 constituent groups in total membership.

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Alumni Notes

1928

Frederick Rudolph Lotz of Suffolk, VA, writes that his engineering background helps him with his hobby of designing, building and racing sailboats. He points out the vast changes in the G.E. curriculum since his student days in the pre-computer era.

1934

Joseph M. Fike has moved from Interlocken, MI, to Carmel, IN, since the death of his wife last December.

1948

Charles H. Sechrest, Morristown, NJ, has retired as an annuitant of Exxon. He writes he is enjoying volunteer activities, travel and geneology.

1952

Arthur Ernest Molzan, North Aurora, IL, has accepted the position of Regional Manager-Asia, Telsmith, Inc., Milwaukee, WI.

1959

James F. Gaffney, McAllen, TX, has started his own company and is President, Border Quality Products Corp. in McAllen, TX.

1962

Ray A. Ruth, Richmond, VA, is President of Mctray, Inc. in Richmond, VA.

1963

Edward C. Wahl, MBA '66, Hazelcrest, IL has accepted the position of Assistant to the Superintendent for Business Affairs, Homewood, IL School District. He is responsible for the financial planning, management, budgeting and operations. He also is responsible for asbestos management and abatement and plans reviews architectural design and monitors new construction.

1964

Joseph M. Cablk, Riverside, IL has been named Manager, Market Research and Planning, The Peoples Gas, Light and Coke Co., Chicago, IL.

Robert Earl Seyler, MBA '88 Univ. of Mich., is now residing in Makati, Metro Manila, Phillippines. He has been named Vice President, Far East Operations, Playtex Apparel, Inc., Stanford, CT.

1965

C. Wesley Rowley, MS (Nuclear Eng.) '67, is Chief consultant, Rowley Consultants, Cashiers, NC. Also he has been selected commanding officer of Naval Research Unit com Sub Laut Battle Group Staff Detachment 106, Norfolk, VA.

1966

John R. Weibel, MS (Management and Supervision) '76 Central Mich. U., has left Philip Crosby Associates, Inc., after nine years to form his own independent Quality Management Consultancy. He resides in Libertyville, IL.

1969

Thaddeus S. Figus, JD '72, has founded a new firm Corporate Legal Advisors in Minneapolis, MN. The firm focuses on the legal needs of start-up and small to medium-sized businesses.

1970

Bruce Allen York, MBA '76, U of Del., has been named Director Cost of Quality, Union Pacific Railroad, Omaha, NB. The family consists of his wife, Sue, '71 graduate of Agriculture Communications, and three sons.

1971

Rodney Jay Baudino, MBA '81, Western Ill. U., has accepted a position as Product Development Manager, Sanford Corp., Bellwood, IL. He resides in Woodridge, IL.

1973

Terry N. Snyder is employed by The State Water Resources Control Board, Sacramento, CA. He asked to pass along to new graduates his "words of wisdom": "Take the Engineer-in-Training Exam before graduating, irrelevant of career plans.: Avoid the frustration of recalling subject material."

James E. Marconnet has been appointed Senior Aeromechanical Engineer, Coleman Research Corp., Huntsville, AL. He is engaged in performing high endoatmospheric defense interceptor (HEDI) seeker window structural analysis. Marconnet recently started a subscription newsletter, *Gadgets for Divers Newsletter*, featuring field tests of scuba diving equipment. He resides in Madison, AL.

1974

Kathryn A. Davis, MS(CE) '75, MBA '86, Harvard, has been promoted to Senior Vice President, Merritt and Harris Inc., New York City, in charge of all marketing for the NYC and Los Angeles offices. The firm does nationwide construction consulting (new and renovation) for lenders and physical condition surveys of existing buildings for institutional investors. Davis says she enjoys attending symphonies, ballets, concerts, operas and Broadway shows and enjoys traveling abroad.

1975

Marianne Andrasek Goren teaches engineering classes part-time at a Community College in Troy, OH. She reports the birth of a second child last June.

Nicholas Janicki resides in England where he is manager of European Sales for Firestone, UK Ltd.

Timothy Jerome Smith, MS (Environ. Engr.) '77, has moved to Chapel Hill, NC from California. He has been named an Environmental Engineer with the U.S. Environmental Protection Agency in Research, Triangle Park, NC.

1976

Dr. David Hale Smith has joined The Easton Memorial Regional Cancer Center, Easton, MD, as a hematologist-oncologist. He formerly resided in Evanston, IL.

1977

Caleb H. Didriksen III, JD '82, Tulane Univ., is a partner in the Didriksen and Carbo law firm in New Orleans, LA. The four attorneys in the firm all have technical backgrounds and the firm specializes in technical litigation.

1979

David J. Coulombe, MBA '85 DePaul U., serves as Director of Engineering of Homaco, Inc., Chicago. The firm manufactures telecommunication and data communication equipment. He resides in Skokie, IL.

Dr. David S. Rosenbaum, MD '83, UI Med. Ctr., has been appointed Assistant Professor of medicine and biomedical engineering, Cardiology Division, Case Western Reserve Univ., Cleveland, OH. He resides in Beachwood, OH.

1980

David V. Adams, MS (ME) '83, Univ. of Ca. (Berkeley) is senior engineer, Applied Materials, Inc., Santa Clara, CA. He reports he has received his first patent, "A Pressure-Resistant Reactor for Semiconductor Processing." He also has recently become engaged.

Jeffrey D. Nelson recently has been transferred to Sundstrand, Rockford, IL, from Sundstrand, Dayton, OH. He serves as marketing manager, Electric Power Systems.

John Charles O'Connor, Test Pilot Graduate '86, USN Test Pilot School, has been assigned as Senior Military Rotary Wing Instructor and Director of Safety and Standardization, Naval Air Test Center, Patuxent River, MD. He has tested several varieties of Naval and Marine helicopters. Also he served in the Persian Gulf.

LCmdr. John W. Peterson has assumed command of The U. S. Ship Hercules. The ceremony took place on June 29 at Trumb Point Annex, Naval Air Station, Key West, FL.

William A. Schaeffer, MCS (Computer Science) '85, has been named Assistant Art Director, Color Systems Technology, Los Angeles. The firm specializes in Color Conversion of feature movies, music videos and television shows. Schaeffer heads the team responsible for designing the look of the final product.

Robert L. Schultz, MBA '90, Keller Graduate School of Management, has left AT&T to become Product Planner, Strategic Marketing, Compad Computers, Houston, TX. He formerly was located in Chicago, IL.

Marc C. Worth, MBA '85, Okla. City Univ., has been named Industrial Gas Services Representative of Public Service Co. of NC. He formerly was with a natural gas utility. Worth now resides in Asheville, NC.

1981

Mary Beth Fawcett, MBA '90 U. of Chicago, has been employed as Product Manager-Enhancements and add-ons, Rockwell Graphic Systems, Westmont, IL. She resides in Medinah, IL.

Michael A. Kimutis is a first officer with Delta Airlines based in Cincinnati. He resides in Cincinnati.

Thomas Y. Peterson, a resident of Aitkin, MN, is Engineering Manager with Slicer Controls, Minneapolis, MN.

Kurt C. Simon has been transferred from Operations Manager-Energy Systems to Engineering Manager-Cellular Products with AT&T Network Systems, Rolling Meadows, IL. The department provides system equipment engineering support for products sold to international customers and domestic non-wireline service providers.

Timothy E. Tucker, MS (Indust. Eng.) '84, has been named Director of Administration, Market Development, Andersen Consulting.

1982

Timothy William Daly, MBA '89, Loyola Marymont Univ., is a Project Controls Specialist with

Super Conducting Super Collider, Dallas, TX. He resides in Lancaster, TX.

Larry M. Himmelblau, Wheeling, IL, has a new position as Senior Project Engineer with Barnes & Reinecke, Elk Grove, IL. The firm worked on Army contracts in support of the Desert Storm Operation.

1983

Tina Tuminello Bishop is an assistant staff engineer with Delco Remy Division of General Motors, Anderson, IN. She has received a GM fellowship to study for a MBA degree at Univ. of Chicago.

Joe L. Brittin, MA (Management Information Systems), Sangamon State U., is a Nuclear Safety Engineer with the Illinois Department of Nuclear Safety, Springfield, IL.

Daniel J. Burg is an account executive with Wordlink, Schaumburg, IL. Burg with his wife, daughter and son reside in Mundelein, IL.

Capt. Edward J. Klinenberg, MS (Biomed Eng) '85, Northwestern U., is Chief, Bioenvironmental Engineering Services, Mather AFB, CA. Capt. Klinenberg is a participant in an Air Force Institute of Technology Program at U. of Calif. (Berkeley) leading to a Ph.D. in industrial hygiene.

1984

Oscar Ruben Adrianzen, MS '84, has been promoted to Section Chief-Process Planning and Cost Estimates, INTEVEP-Petroleum Research Institute for Petroleas de Venezuela, Caracas. He supervises 32 engineers/technicians.

Paul H. Verstrate, MS '86, has been promoted to Senior Program Engineer at Sundstrand Aerospace, Rockford, IL. He is responsible for electronics packaging analysis.

1985

Robert J. Chrisman, Jr., Columbus, OH, is pursuing a M.S. degree in mechanical engineering at The Ohio State U. His research under an NSF fellowship focuses on developing a rapid prototype system for injection-molding tools.

Donna R. Lee, MS (Administration) '91, Central Mich. U., is a Senior Expeditor-Materials Management, AC Rochester Division, General Motors Corp., Flint, Mich. She is responsible for coordinating scheduling and shipping material to GM Truck and Bus, engine plants, nationwide. She also is active in a community program, "Aspire" for high school students interested in engineering.

Suzanne Karls Mattes, MS (Indust. Engr.) '88, is a Senior Consultant with Oralle Corp., Chicago. Recently married, she resides in Naperville, IL.

1986

Daniel Charles Bittner, is employed as a civil engineering consultant by Robert H. Renwick & Associates, Inc., Ottawa, IL.

Lisa M. Kempf has accepted a position as Packaging and Engineering Manager with Quaker Oats Co., Lawrence, KS. She is pursuing an MBA at Kansas U.

1987

James A. Haack, Clayton, MO, is a full-time student at Washington Univ., St. Louis, MO, in the MBA program.

Frederick William Jewell, MS '89, has been promoted to senior consultant, Andersen Consulting, Chicago. He is with an Advanced Development Group working on developing a cooperative processing methodology.

Julie A. Furmanek Jewell also was promoted to a senior consultant with Andersen Consulting. She is currently assigned to a Drill Bit Manufacturer working on customizing and installing a MRPII system package. The Jewells reside in Palatine, IL.

Eric D. Odden has accepted a position as an engineer reporting to Space Station Freedom Program with the Boeing Co., Huntsville, AL.

Jacquelyn Sue Beller McGroarty, MS '90, has been named clinical information specialist with R. W. Johnson Pharmaceutical Research Institute, Raritan, NJ. Married in early October, the couple resides in Lebanon, NJ.

1988 **Edward T. Hightower** recently was transferred and promoted to Vehicle Development Engineer, Buick-Oldsmobile-Cadillac Group, General Motors Division, Milford, MI. He was formerly with Delco Products Division, GMC.

Andrew Edward Isbell, MS (Enviro. Engr.) '90, is an Environmental Engineer with USA-CERL, Champaign, IL.

Timothy James Patno, MS(EE) '91, U. of So. Cal., is now residing in Hawthorne, CA.

Richard Seseck, MS '90, has been named Research Engineer, Safety and Ergonomics Group, Georgia Tech Research Institute, Atlanta, GA. He serves as consultant to various industries in Georgia and lectures on ergonomics related topics through Georgia Tech's engineering extension. Recently married, Seseck resides in Duluth, GA.

Joel W. Storekman has been named Computer Applications Engineer, Boeing Commercial Airplanes, Seattle, WA.

1989 **Linda Marie Dupont**, formerly a Design Editor with Delco Products, Dayton, OH has entered North-

western U. Law School. She plans to practice patent or product liability law.

Troy Robert Pawelko is a staff consultant with Andersen Consulting. He recently moved from Evanston, IL to Chicago.

Carol Lee Casada Tadros, MS (Indust. Eng.) '90 U. of Calif.-Berkeley has been employed as a Manufacturing Industrial Engineer with Arndahl Corp., Sunnyvale, CA. Married last April, she resides in Santa Clara, CA.

Gregory M. Vydra, MS (Indust. Eng.) '90, Northwestern U., is an Operations Research Consultant with ZS Associates, Evanston, IL. He and his wife resides in Wheeling, IL.

Douglas A. Wilcoxon has accepted a position as Maintenance Engineer with Asarco, Inc., Omaha, NE.

1990 **Antonio A. Cerda** has been employed as Civil Engineer I, Illinois Department of Transportation, Schaumburg, IL.

Stephanie Connolly is a second-year graduate student pursuing a master's degree in operations research at MIT.

Brian Scott Dalisay is employed in Technical Sales with Burgess-Norton Mfg. Co., Geneva, IL. He resides in West Chicago, IL.

Matthew Wayne Fell has accepted a position with The American National Can Co., Elk Grove Village, IL.

Daniel M. Hora of Elgin, IL, is a Sales Engineer with Astro-Med. Inc., McHenry, IL.

1991 **Frederick L. Ingoldsby** holds the position of Field Engineer, Atlas Wireline Services, Houma, LA.

Robert W. Evans, Editor
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