



# GENERAL ENGINEERING NEWSLETTER

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

Vol. 25, No. 1

Fall 1982



Professor Michael H. Pleck with computer display.

## Gifts bring total fund for CAD/CAM Lab to \$225,000

For the past year a major occupation of Professor Jerry S. Dobrovlny, head of the department of general engineering, has been obtaining funds for the CAD/CAM laboratory. CAD/CAM is an acronym for computer-aided design and computer-aided manufacturing. Developed by industry, this is an area of great importance to engineering students going into an increasingly computerized world.

Thus far the department has raised \$225,000 from various sources, including a \$50,000 gift from General Motors Corp., Detroit, and a \$90,000 computer graphics system from Evans and Sutherland, Salt Lake City.

Another \$100,000 is needed to convert 2,000 square feet of attic space in the Transportation Building for the CAD/CAM laboratory, which will serve instructional and research activities of 1,000 undergraduate and 70 graduate students in general engineering and in aeronautical and astronautical engineering.

Dobrovlny is working to form an industry-university consortium to provide financial support for the university and assist industry to develop CAD/CAM.

Professors Thomas F. Conry and Michael H. Pleck

(Continued on Page 2)

## Honored alumnus heads Tower Hobbies

The ninth annual Gamma Epsilon Distinguished Alumnus Award was presented last spring to Bruce R. Holecek, 1971 graduate in general engineering and member of the department faculty from 1973 to 1976.

Holecek is owner and president of Tower Hobbies, Champaign, the world's biggest mail-order retailer of radio-controlled airplane and boat models, grossing more than \$15 million a year.

He is an entrepreneur in the full sense of its definition: "a person who organizes and manages a business undertaking assuming the risk for the sake of the profit." Horatio Alger could find no greater model for an all-American success story.

Tower Hobbies received its name from Illini Tower where Holecek was living as an undergraduate when he made his first wholesale purchase and wrote the first four-line advertisement offering sales by mail. His high school student brother became a partner, handling orders and shipping from the basement of the family home.

Operations shifted to Champaign when Holecek's

(Continued on Page 2)



Bruce R. Holecek

## CAD/CAM Lab

(Continued from Page 1)

are in charge of the laboratory. In September they attended a training class given in Minneapolis by the manufacturer of the Evans and Sutherland PS 300 system.

The PS 300 — PS for "picture system" — is a special purpose computing machine for the creation, manipulation and modification of complex two-dimensional and three-dimensional data structures.

The operator, setting terminal points, can draw a complex picture on the screen, change it, rotate it keeping a perspective viewpoint, and carry out complex manipulations. Parts or sub-components can be displayed together and individually manipulated.

The PS 300 has a 19-inch diagonal black and white line-drawing cathode ray tube with 8,192 addressable screen locations in both vertical and horizontal locations. Lines may be depth cued over a range of 64 intensity levels. The General Engineering Department CAD/CAM laboratory is linked directly to extensive facilities of the university's Digital Computer Laboratory.

Computer-aided design can carry out complex solutions never before attempted. The computer can take a mass of data, carry on rapid calculations, display and change drawings on command and analyze the result for properties such as strength, stress and heat transfer.

Designs which in the past have required miles of data and months of detailed drawing can be produced in minutes, and the drawings themselves — long the link between design and manufacturing — skipped by using magnetic tapes to control metal cutting machines and robot assembly — CAM or computer-aided manufacturing.

"Traditionally, design and manufacturing have been, for the most part, separate enterprises," Pleck said in a recent paper. "The link has been communication, largely in the form of engineering documentation.

"A designer's conceptualization of a three-dimensional shape is reduced to images in two-dimensional paper and subsequently revisualized in three dimensions by many personnel in both the design and manufacturing phases of industry. The process is inherently inefficient . . ."

Conry and Pleck — in charge of the CAD/CAM laboratory — point out that engineers being educated today will have an active professional life of at least 30 years, taking them into the second decade of the 21st century.

The integration of computers, information processing and CAD/COM into the practice of engineering is just beginning, they say. Engineers in practice must become systems oriented if they are going to be able to process and synthesize the large amounts of data available for making decisions.

### Gamma Epsilon elects 1982 officers

Officers of Gamma Epsilon, general engineering honor society, for 1982-83 are: Mike Biarnesen, Wildwood, president; Jeanette Harms, Forrest, vice president; Cindy Moeller, Naperville, secretary; Paul Hagbers, Rockford, treasurer; and Tim Pasternak, Elk Grove Village, director.

## Honored alumnus

(Continued from Page 1)

brother Mark came to the U. of I. as a student in general engineering. He earned his degree in 1976 and sold his interest in Tower Hobbies to the older brother.

Holecek earned a master of business administration degree from the university, taught in general engineering, and he and his wife ran the business from their home, putting back every cent of income and living on his salary as a teacher.

"We could live on my pay because we didn't have the time to do anything else," he said. Only in the last two or three years have they taken salary from the company.

Now his monthly income runs in five figures. In last fall's College of Engineering Placement Office survey of graduates out of college 10 years, his income not only tops all general engineers, it tops all engineering graduates of 1971 and is more than two times that of the next highest.

In a lecture to MBA students at the university, Holecek explained that his policy is, "do what others do, but do it better and for less."

In the early years, Holecek and his wife did everything, working seven full days a week, living in a home filled with supplies and the business. In 1973 with the recommendation of Professor Jerry S. Dobrovolny, head of the department of general engineering, Holecek went to a Champaign bank for his first loan.

In 1975, sales topped \$1 million and the firm moved into the first building it owned. In 1978, with sales of \$4.8 million, it became the biggest in the industry. In 1980, with support of industrial revenue bonds, a new building was built at Champaign's Interstate Research Park.

From the 42,000-square foot office and warehouse facility, 100 employees serve more than 100,000 customers with radio control models, kits, parts, tools and supplies listed in a 180-page catalog. The products, Holecek says, are the best of their kind available anywhere, made in the U.S., Japan and West Germany. Many carry the Tower Hobbies house brand.

Tower Hobbies is highly computerized. A recently-installed computer, smaller in size but far bigger in capacity, has replaced one only three years old, and this in turn was only the latest in a series as computer capacities and abilities have increased. Customers — many calling in orders on toll-free telephone lines — receive same-day service, and Holecek has up-to-the minute instantaneous information on all aspects of the business.

Mrs. Holecek, Jeri, who like her husband is a native of suburban Riverside, Ill., and a U. of I. alumnus, has been an equal part of the business from its kitchen table days. Her bachelor's and master's degrees in psychology provide the counterpoint to his in engineering and business.

"She's responsible for the people side of the business and I for the numbers side," Holecek said. "She wrote our employe handbook and I take care of finances, advertising, marketing, purchasing and long-range planning.

For this his engineering training is very important, he said. "Engineering is an analytical discipline, fundamental to my thinking. I use my engineering training more than the business training."



Bradley C. Crews (center), Mount Erie, is the third general engineering student to receive the Illinois Society of Professional Engineers' Melvin E. Amstutz Award. With him are Professor Jerry S. Dobrovolny (left), head, U. of I. department of general engineering, and Robert P. Bergendoff (right), Barrington, society president.

### **New faculty member will offer spring course in biomechanics**

Manssour H. Moeinzadeh joined the general engineering faculty this fall as an assistant professor, coming from the Ohio State University where he was a research associate and earned a doctorate in engineering mechanics. His bachelor's and master's degrees are in mechanical engineering from Youngstown State University, Youngstown, Ohio.

Moeinzadeh's special interest is in application of mechanics to human biological systems, and he will give a new course, "Special Topics in Biomechanics," in the spring semester. This will offer "an introduction to the historical developments and recent trends in the application of mechanics to human biological systems."

At Ohio State, Moeinzadeh's research involved static and dynamic mathematical modeling of an articulated joint and measurement of resistive torques and moments in major human joints for a computerized multi-segmented total human body model. The projects were funded by the Aerospace Medical Division of the Air Force Systems Command at Wright-Patterson Air Force Base, Dayton, Ohio.

As a research associate at Youngstown State, he carried on fatigue testing of highway signs to analyze fractures due to wind loads. This was sponsored by the Ohio Department of Transportation. He has worked for Packard Electric Division of General Motors Corp., Warren, Ohio; Quaker State Oil Refining Corp., Newell, W. Va.; and Bernard Pipeline Co., Barberton, Ohio.

Moeinzadeh is a member of Phi Kappa Phi, Tau Beta Pi, Sigma Tau, Sigma Xi, American Society of Biomechanics, American Society of Mechanical Engineers, Illinois Society of Professional Engineers and National Society of Professional Engineers.

### **St. Pat honors two GE students**

Two general engineering students were honored as Knights of St. Pat at the annual engineering dance. Named knights were Robert S. Day, Portsmouth, R. I., and April E. Horne, Rantoul.

## **ISPE gives third Amstutz Award to a general engineering student**

Bradley C. Crews, Mount Erie, is the third general engineering student to receive the Illinois Society of Professional Engineers' Melvin E. Amstutz Award.

He was selected "for outstanding scholastic achievement and participation in student activities." In 1981 the award went to David P. McGinnis, Chicago, and in 1978 to Barbara Edstrom, Midland, Mich.

Crews was one of the top three juniors in his class. He has been active in the Krannert Center Student Association and the Block "I" cheering section, is a member of the Illinois Society of General Engineers where he was on the Engineering Open House committee, and is a member of Tau Beta Pi, engineering scholarship honor society. In summers he has worked for Champion Laboratories, West Salem, Ill.

In an essay with his application, Crews said, "the material belongings of people in industrialized nations are a direct result of the engineering profession . . . every significant improvement of the material concept is due to engineers, from something as trivial as the lever to today's marvel of a reusable spacecraft."

This, he said, is why he wants to become a professional engineer. "Just belonging to a group which has done so much for the betterment of mankind is a tribute to one's self and, most importantly, one's profession.

"Engineers are a highly respected group . . . they take responsibility for their mistakes as well as praise for their achievements . . . they constantly strive to better the world."

### **17 GE students are honored with departmental awards**

Seventeen general engineering students were honored during the spring semester as six departmental awards were presented. They included:

—Edward S. Fraser Award to outstanding graduating senior, David P. McGinnis, Chicago.

—Randolph P. Hoelscher Award to outstanding junior, Janina M. Skorus, Broadview.

—Ingersoll-Rand Awards to outstanding juniors, Greg C. Chapman, Monticello, and Jeannette S. Harms, Forest.

—Bernt O. Larson Project Design Awards to the year's outstanding design team, first place, Bernard L. Cyr, Aurora; Joseph P. Pasinia, Elmhurst; John A. Risley, Mahomet, and Mark M. Troha, Savanna; second place, Bruce R. Gotteiner, Glenview; Michael R. Olson, Danville; Warren R. Sampson, Rockford, and Michael E. Stitt, Danville.

—L. B. Phillips Award to an outstanding senior, April E. Horne, Rantoul.

—Herbert J. Sprengel Award to year's outstanding freshman problem team, Zane C. Eaton Jr., Tolono; Dwight C. Hansell, Northbrook; Debra A. Jeglum, South Beloit, and Edward J. Klinenberg, Lincolnwood.

### **Two GE Bronze tablet scholars**

For sustained outstanding scholarship, two general engineering graduates were named Bronze Tablet Scholars by the university. They are Robert W. Jaekel, Orland Park, and David P. McGinnis, Chicago.

## Faculty Notes

**Professor Jerry S. Dobrowolny** continues active in the National Society of Professional Engineers and the Illinois Society of Professional Engineers. In July he attended the NSPE Board of Directors meetings in Omaha, Neb., representing ISPE as a national director.

He also is a member of the NSPE Board of Governors for Professional Engineers in Education, and is chairman of the Professional Engineers in Educational Practice section of the state society.

In October he spoke to the NSPE Central Region in Indianapolis, discussing the "Crisis in Engineering Education," and also in October discussed "Continuing Education for the Engineer" before the Technical Design Association meeting in Birmingham, Ala.

Much of his time during the past year has been occupied with obtaining funds for the new CAD/CAM laboratory, and he encourages interested general engineering alumni to contact him.

**Professor Osman Coskunoglu** presented recent research results at two conferences during the spring semester. In February at the First Conference on Operations Research, held in Springfield, he gave a paper titled "Decentralization Strategies for the Public Sector Planning and Control" which will appear soon in the conference proceedings.

In April he had two papers in the Joint National Meeting of the Institute of Management Science and the Operations Research Society of America. Coskunoglu presented "Elements and Computational Aspects of Dynamic Programming," and his co-author, Ilher Adiguzel, a doctoral student, presented "Decentralized Computation and Implementation of Mathematical Programs for Large and Complex Systems." Coskunoglu also was invited to give seminars in several U. of I. departments.

During the summer he was invited to present a paper in the Second International Symposium on Forecasting, held in July in Istanbul, Turkey, but could not attend because of an earlier commitment to serve as chairman in the Fourth International Symposium on Large Engineering Systems, held in Calgary, Canada. There he also presented a paper titled "Solving Large and Sparse Mathematical Programs with nonlinear Constraints" which appeared in the proceedings, "Large Engineering Systems 4."

When invited by the Communication and Computer Sciences Department of the Exxon Corp., Florham Park, N.J., he interrupted his new England vacation to give a seminar titled "Decentralized Planning and Control of Multilevel Hierarchical Systems via Incentive Mechanisms." While in New Jersey he visited Ingersoll-Rand and Bell Laboratories. At the beginning of the fall semester he attended a Department of Defense symposium in St. Louis.

During the year, his earlier research results appeared in several professional journals. He is completing a paper on, "Multilevel Plan and Control: A Non-iterative Approach and Its Application to Water Quality Management" which he was invited to give at the 21st Institute of Electrical and Electronics Engineering Conference on Decision and Control to be held in December in Orlando, Fla.

**Professor Michael H. Pleck** spent the summer in the

computer-aided design group of General Dynamics' Data Systems Division, Western Center, San Diego. There he worked on a research project based on the Japanese TIPS-1 system for CAD/CAM. General Dynamics is developing a system employing TIPS-1 to verify numerical control operations for complex parts by modeling the cutting process before actual manufacture. Pleck developed a method to simplify the modeled description of the operation to help speed color raster picture generation.

While at General Dynamics, Pleck attended the National Computer Graphics Association meeting in Anaheim, Calif., and a Computer Aided Manufacturing International meeting in Seattle. The Seattle meeting provided opportunity to meet with developers of the TIPS-1 system and to advance his work at General Dynamics. He also toured the Boeing 747/757/767 production facilities in Everett, Wash.

In September, Pleck and Professor Thomas F. Conry participated in a training class in Minneapolis for the Evans and Sutherland Picture System 300 advanced computer graphics system recently given by the manufacturer to the University of Illinois. In October, Pleck represented the U. of I. College of Engineering at the Computer Aided Manufacturing International annual meeting in Reno, Nev., where he discussed ongoing mutual research projects with Professor Norio Okino of Hokkaido University, Japan, originator of the TIPS-1 system.

**Professor David C. O'Bryant**, as chief consultant to MITE, the Minority Introduction to Engineering program, conducted a session and gave follow-up statistics at a meeting in Colorado Springs, Colo., which wound up the organization's 1982 activities.

MITE, supported by industry, is a national effort to make highly-qualified minority high school students aware of engineering. It began in 1969 at the U. of I. with a program which brought 18 minority students to the campus. It became nationwide in 1974. This year more than 3,000 students took part on 56 campuses in 37 states. Forty-four were at the U. of I.

O'Bryant also attended the annual Technical Design Association meeting in Birmingham, Ala., where he gave a paper on "Undergraduate Engineering Education Now and in the Future." This is an organization of chief design engineers and vice presidents of engineering from many of the nation's larger corporations.

**Professor L. Daniel Metz** is the author of "A New Approach to the Modeling of Human Controller Remnant" published in February in the Institute of Electrical and Electronics Engineers Transactions on Systems, Man and Cybernetics. A paper titled "Potential for Regenerative Braking Systems as Applied to Automobiles" which he gave at the Western Design Engineering Conference will appear soon in the American Society of Mechanical Engineers Transactions on Mechanical Design.

He continues research on human control performance, vehicle dynamics and firearms identification, and in addition to teaching GE 222 and GE 242 is presenting a new course, GE 491, "Simulation of Dynamic Systems," in the general engineering master of science program. His consulting activities in vehicle dynamics and accident reconstruction continue to occupy much of his free time, and consulting during the year has led to travel throughout the United States.

**Professor Rodney D. Hugelman** Received an Outstanding Session Presentation award for his paper "Recent Developments in Swirl Induced Mixing for 4-Stroke Cycle Engines" presented in February at the Society of Automotive Engineers International Congress and Exposition in Detroit.

He is flying again with a 1958 Piper Comanche which he describes as "fast and beautiful." It has been instrumented to continue swirl combustion research on aircraft. Results are good, he says, and significant fuel savings should result.

**Professor Henrique Luis dos Reis** has been elected chairman of the Illini Section of the American Institute of Aeronautics and Astronautics. He continues his research in dynamic plastic behavior of structures.

**Professor Edward N. Kuznetsov** published three papers in journals and presented papers at the ninth National Congress in Applied Mechanics and 19th annual meeting of the Society of Engineering Science.

**Professor Manssour H. Moeinzadeh** is the author of a paper titled "Two-Dimensional Dynamic Modeling of Human Knee Joint" which has been accepted for publication in the Journal of Biomechanics.

**Professor Harrison Streeter** during the past year reviewed two books for Harper and Row, New York publishers.

### **1982 grads start at \$2,051 month**

Beginning salaries for May graduates in general engineering averaged \$2,051 a month for 26 who went directly to jobs, according to a survey in late July.

Ten of the 54 graduates said they planned to continue their education, four were undecided about what they were going to do and 14 indicated they were "still available."

The average salary for University of Illinois May graduates with bachelor's degrees in engineering fields was \$2,068. Fifty-five percent were employed, 20 percent were continuing education, 6 percent undecided, 16 percent "still available."

Twenty-five years ago, in 1957, beginning salaries for general engineering graduates averaged \$465; by 1962 they were up to \$553; in 1967 were \$746; in 1972 went to \$900; in 1977 to \$1,289 and last year, 1981, averaged \$1,887.

### **Gamma Epsilon initiates 18**

Eighteen students have been initiated into Gamma Epsilon, general engineering honor society recognizing outstanding scholarship, character and participation in engineering activities.

They are: Ronald J. Borre, Northbrook; Bradley C. Crews, Mount Erie; James E. Duchnowski, Pekin; Denise L. Flora, Champaign; Barry M. Hare, Morton; Stassi D. Henson, O'Fallon; Patrick J. Herron, Western Springs; Michael I. Hutchens, Libertyville.

Paul L. Keane, Mount Prospect; Alan E. Landmann, Highland; Robert A. Mog, Lebanon; James A. Muenzenberger, Hoffman Estates; Kathryn I. Phillips, Palatine; Andre J. Quattrochi, Berkeley; Chris R. Rieger, Chatsworth; John S. Romuk, Chicago; David R. Samyn, Rolling Meadows, and Paul H. Verstrate, Chicago.

### **GE department gets 14th plaque from Lincoln Welding Foundation**

A 14th plaque from the James F. Lincoln Arc Welding Foundation, Cleveland, Ohio, honoring University of Illinois students has been placed on the office wall of the department of general engineering.

Sharing a \$250 fourth award in the foundation's 1982 College Student Engineering Design Competition were Carl Alde and Susan Julian, both of Libertyville, and Richard Bourke, Burbank.

Their project was titled "Quality Control /Quality Assurance Voice System." Dominic O. Skaperdas, associate director of the university's Computer-Based Education Research Laboratory, was faculty advisor.

General engineering students also received a \$100 merit award, which was shared by Richard T. Cartwright, Wheaton; Douglas C. Reeves, Slippery Rock, Pa., and Brian Walters, Glendale, Ariz., for a project titled "New Rim Design for Large Earthmover Tires." Their faculty advisor was Professor Henrique Reis.

In the foundation's 35th competition, 66 awards went to students in 29 colleges and universities.

### **JETS introduces high school students to engineering areas**

More than 150 high school students took part this summer in Introduction to Engineering programs sponsored at three Illinois locations by the Junior Engineering Technical Society, nationwide organization whose state headquarters are at the U. of I. Professor David C. O'Bryant of general engineering is state JETS director, and Jonathan Horner is state coordinator.

Two-week summer programs providing guidance in engineering education and careers to talented high school pre-seniors brought 49 to the U. of I. at Urbana-Champaign, 36 to the U. of I. at Chicago, and 24 to Bradley University, Peoria. Another 44 participated in the similar MITE program — Minority Introduction to Engineering — sponsored at Urbana-Champaign by JETS and industry.

The National Engineering Aptitude Search sponsored by JETS was given to 937 high school students at 62 locations in Illinois. This test, developed by American College Testing Service, is designed to indicate the aptitude and qualifications for engineering study at the college level.

Sixty-nine students from eight high schools took part late in October at Urbana-Champaign in finals of an essay and presentation contest sponsored by JETS, the Illinois State Department of Commerce and Community Affairs and Motorola Inc., Schaumburg. Winner in the small school division was St. Bede Academy, Peru, and in the large school division, Crane High School, Chicago. The essay topic was "My community would be a good location for high technology industry."

### **Science writer edits Newsletter**

Arthur R. Wildhagen, recently retired science editor of the University of Illinois News Bureau, is editing the General Engineering Newsletter following relinquishment of that post by Mrs. Mildred Rose who earlier had succeeded Professor Grace Wilson, long a member of the general engineering faculty.

## Alumni News

**1932 Gerald C. Primm** and Mrs. Primm now live in Sun City, Ariz. Kenneth J. Howard '29, who sent in the address after reading the lost alumni list, recalled that for many years Primm was scoutmaster of Troop 608 which met in St. Paul's Union Church, 1960 W. 94th St., Chicago. Under his leadership the troop developed into one of the best in Chicago, taking many prizes in Scout competitions, Howard said. The troop was organized in 1917 and still is going.

**1941 William J. Shive** has retired. He sold his business, Sterling Steel Casting Co., and moved from Belleville to Lake Sara at Effingham.

**1949 Rudolph G. Larson** arranged for early retirement in July after a full career ending as a project engineer with Teleweld Inc., Streator. He lives in Aurora where he owns and manages real estate. During his career as an engineer he was with Thor Power Tool Co. and American Well Works in Aurora; International Harvester research department and Pettibone Mulliken Corp. in Chicago; Fairbanks Morse, Beloit, Wis.; served in the U.S. Army, and was a substitute teacher in Fox Valley Junior and Senior High Schools. After graduating from Illinois he attended Northern Illinois University, DeKalb.

**1957 Kenneth Anderson**, secretary-treasurer of Anderson Concrete Pipe Inc., Springfield, has invented a new method for sealing concrete pipe which proved so successful that a new firm, Anderson Seal Co., was formed to sell it nationally. The method uses general-purpose compounds of hydrocarbon rubber on the spigot and bell ends of pipe to make a waterproof junction little affected by sunlight and weather and flexible at temperatures as low as 58 degrees below zero. It also acts as a protective bumper on the spigot end, reducing damage to the sealing surfaces. The rubberized compound is said to give the sealing qualities of plastic with the strength and durability of concrete.

**Joseph A. Plomin**, now sales engineer for Sealing Specialists, Countryside, continues to live in Homewood which has been his home for 10 years. He joined Sealing Specialists in May to develop a hydraulic and pneumatic sealing expansion program for the firm which has been in the sealing field for 20 years. Its accounts include steel mills, refineries, mobile equipment and general industry. Joe has seven children and is looking forward to the 25th reunion of the Class of 1957.

**1963 Sam M. Leeper** has been named president and board member of the First National Bank of Greeley, Colo. This bank is a member of First National Bancorporation, largest holding company in Colorado, with assets of more than \$140 million. Leeper has been at Greeley since 1980 when he was appointed executive vice president and board member of the bank. Before that he was vice president and board member of the Champaign National Bank and a leader in community affairs. After graduating from Illinois he earned a master's degree in business administration from Indiana University.

**1966 Michael Hora**, who received a degree in general engineering in 1966, has been elected vice president of Kearney Management Consultants, Chicago. He lives in suburban Bolingbrook.

He earned a master's degree in business administration from Loyola University in 1972 and joined Kearney in 1973 where he has consulted in manufacturing services, plant engineering and maintenance, and energy management.

Earlier he was a maintenance superintendent for Midland Ross, was head of the maintenance department at Signode, and general supervisor of technical services for Armour-Dial.

**Myron Odell** is senior manager, management systems and consulting, at St. John's Hospital and Health Center, Santa Monica, Calif. Mike and his wife Cindy, have one daughter, Kristen Michelle.

**1970 Richard B. Hoffman**, a partner in McCaleb, Lucas and Brugman, Chicago, specializing in patent, trademark and copyright law, received a master's degree in intellectual property law from John Marshall Law School, Chicago, in June 1981 and has been speaking before bar associations on the right of publicity which celebrities employ to prevent unauthorized uses of their names, likenesses and reputations. He earned a law degree in 1973 from DePaul University.

**1971 Marion R. Fuchs** has moved from Choctaw, Okla., to Oklahoma City.

**Robert A. Roads**, assistant chief engineer with the Illinois Department of Conservation, Springfield, now lives in Jacksonville.

**1973 W. Peter Siems**, a utility engineer with the Caterpillar Tractor Co., Peoria, has been honored as the outstanding member of the year in the Heart of Illinois Chapter of the American Institute of Plant Engineers. Siems was director of programs for the chapter in 1981-82 and is treasurer for 1982-83. He is a registered professional engineer and certified plant engineer.

**1974 Thomas H. Nicol** has taken a leave of absence from his post as project engineer with Fermi National Accelerator Laboratory, Batavia, to attend graduate school at the University of Oklahoma, Norman, where he expects to receive a master's degree in mechanical engineering in December. At Oklahoma he is a research assistant in the department of physics and teaching assistant in mechanical engineering design.

**1976 Joseph M. Rocansky** is fire protection coordinator in the safety and health department of the Container Corporation of America, Chicago. He earned a master of business administration degree from Keller Graduate School in 1981 and received an Illinois professional engineer license in 1982. He moved to Woodridge, in 1979, was married in 1980, and his first son, Adam, was born in 1981.



Michael Hora

**Keith A. Thomsen** has been promoted to manager, capital expenditures, by Northwest Industries Inc., Chicago. He joined Northwest Industries in 1979 as an analyst and was promoted to senior capital expenditures analyst. Earlier, he held several engineering positions with Bell & Howell. He earned a master of management degree from Northwestern University in 1980.

**1977 Mary R. Jankousky**, who earned a law degree in May from Boston University Law School has moved to Chicago.

**1979 David O. Reip** is at Fort Rucker, Ala., for nine months of helicopter flying training as a first lieutenant in the U.S. Air Force. Graduation from the course is scheduled for January 1983.

**1980 Eric M. Austin**, who earned a master's degree in theoretical and applied mechanics from Illinois in January, has moved to San Carlos, Calif., where he is an engineer with Anamet Laboratories, a small consulting firm in applied mechanics.

**John H. Dix** has moved to Dallas, Tex.

**Carolyn Doyle** now is Mrs. Mark Dressel. Her husband received his law degree from Loyola University, Chicago. They were married in August. She is a design engineer with the special structures design group of the Chicago Bridge and Iron Co., Oak Brook.

**Eugene V. Dunn** has been promoted by Western Electric Co. from engineer to planning engineer in the data set circuit pack engineering department in Western Electric's Montgomery Works.

**Edward J. Jaselskis** earned a master's degree in civil engineering from Massachusetts Institute of Technology in June. He is with Exxon, Florham Park, N.J., as an engineer working in cost and scheduling and lives in Denville, N.J.

**Richard D. Rush**, manufacturing engineering supervisor, Harris Corp., Farinon Division, San Carlos, Calif., now lives in San Francisco and is working toward a Master of Business Administration degree from the University of California at Berkeley. Commenting, "The Bay area is a good place to live, with plenty of interesting activities and job opportunities."

**1981 David V. Adams** entered the graduate school of the University of California at Berkeley this fall to study for a master's degree in mechanical engineering. He is an associate engineer in spacecraft mechanics and separation analysis with Lockheed Missiles & Space Co., Sunnyvale, Calif. His work involves verification by analysis of spacecraft booster vehicle separation systems and mechanisms and other devices. Recently he presented a paper at the 16th annual Aerospace Mechanisms Symposium at the Kennedy Space Center, Fla. He reports meeting many fellow Illini at Lockheed.

**Richard A. Carpenter**, now lead engineer for software manufacturing tools and support software for General Electric, Charlottesville, Va., has been with the GE Edison Engineering Program for two years. Assignments have taken him to several areas. Currently his task is to control software configuration of the MC2000 production line. This is a new generation of numerical controls introduced by GE at the September International Machine Tool Show in Chicago. Through the GE Advanced Course in Engineering he has begun work on a master's degree from the University of Virginia.

**James E. Marshall** is quality assurance engineer with Commonwealth Edison Co., Chicago.

**Jeff A. Miller** is reported in Saudi Arabia and working on a master's degree in mechanical engineering.

**William A. Schaeffer** is in Champaign working on a master's degree in computer science from the U. of I.

**Timothy C. Johnston** is in his second year in the master of business administration program at Harvard University, where he has been named publisher of the 1983 edition of "Careers and the MBA." This annual publication, a student concession of the school, is distributed to MBA students at 17 top U.S. business schools.

Johnston also is sole proprietor of the Harvard Tailors and Clothiers concession and serves on the board of directors of the Harbus News Corp., student newspaper of the Harvard school. He lives in Belmont, Mass.

Last year he was among the 5 percent of students admitted directly from college to Harvard's two-year MBA program. At Illinois, he was publisher of the Technograph and he was a cooperative engineering intern at Caterpillar Tractor Co., Peoria.

**1982 Peter M. Jarrell** and **Susan M. Julian** were married Sept. 18 in Lake Forest and now live in York, Pa. He is a software engineer with the York Division of Borg-Warner and she is a programmer-analyst with Crown-Central Petroleum Co., Baltimore.

**Michael L. Schavietello** now lives in Hawthorne, Calif., while working on the technical staff of Hughes Aircraft Co. in Culver City, Calif. Working in the Space and Communications Division, he is part of a systems engineering team assisting in the design of a commercial satellite. "It's interesting work," he writes, "and so far I really like California."

**Thomas F. Taylor**, commissioned an ensign in the Navy on graduation from the U. of I. and now in jet pilot training, was featured in a recent Navy recruitment advertisement in the Daily Illini. The jet pilot opportunity, he said, is making long-held dreams come true, thanks to the Naval ROTC scholarship program. He is looking forward to flight operations from one of the Navy's carriers.

**David R. Vergara** is a manufacturing engineer with All-Steel Inc., South Aurora. He was married in July to Jean S. Cheung who received her degree in actuarial science from the U. of I. and now is an actuary with Allstate Life Insurance, Northbrook, they live in Bloomingdale.

## **Engineering Annual Fund gives alumni reciprocal relationship**

In recent years the College of Engineering has come to rely increasingly on the strength of its relationship with the alumni for support to keep the instructional programs and research for which Illinois is famous.

The Engineering Annual Fund was established in 1979. It has helped departments acquire modern equipment such as additional memory for the computer-aided design and manufacturing laboratory in the department of general engineering, a computer-controlled milling machine, laser equipment for undergraduate laboratories, a microprocessor for the environmental control laboratory, cathode ray tube computer terminals, and books for department libraries.

