

IE/ISU

1119 7

Systems Review

Department of Industrial Engineering, 212 Marston Hall, Ames, Iowa 50011 (515) 294-1682 Vol. 14 Fall 1988

Don Grant retires



Don Grant accepts a scrapbook of memories and pictures from Tegwin Bravard, IE '88, at the Annual Awards Banquet.

n his 20 years of advising and teaching on the ISU industrial engineering faculty, Don Grant was friend, adviser, and counselor to over 3,000 students. What other office could you enter and be greeted by a picture of George

Washington in a crew cut? What other black-board would retain the sayings of frustrated, elated, clever, and dedicated advisees without ever being disturbed?

How many students could enter an adviser's office with tales of woe and be accompanied by a minature violin that suddenly appeared from the desk drawer? What student could forget being challenged with a toy pistol and miniature whip if his or her frustrations got out of hand? As a result of an approachthat said "I care," the industrial engineering students who

passed through Don Grant's office were convinced that he was the best adviser in the world. Others recognized his abilities, too, as his outstanding adviser awards attest.

After serving in the U.S. Army, Don graduated with an electrical engineering degree from ISU in 1948. Ask Don why the top of the Marston Water Tower, before renovation, was at a cocked angle. He was part of the ISU student radio club that somehow managed to string an antenna to the top of the tower. When instructed to remove the antenna, the easiest way was to pull it down,

which resulted in a cant to the decorative finial that puzzled observers for years.

With that experience in radio, it was only natural that Don would obtain employment with Collins

Radio in Cedar Rapids, lowa, after graduating from ISU. After a stint there he was transferred to a Collins facility in Texas, where he gathered the material for his wild tales of Dime Box, Texas.

Don came back to lowa State in 1968 and began his career as a faculty member and student adviser. Early in this career, he recognized a gap in the opportunities for engineering students to learn more about engineering sales, an area he had spent much time and effort on between 1955 and 1968. Don

closed that gap by introducing a course in engineering sales, which has continued to be a popular elective to this date. His other teaching love was a course in contract law for engineers.

Friends, colleagues, and advisees have established a fitting retirement gift—a scholarship for industrial engineering students that will bear Don's name. Contributions to the Don Grant Scholarship Fund may be sent to the Department of Industrial Engineering. These tax deductible contributions may be eligible for a matching gift from your employer.



Did you know?

n 1911 the world's first known industrial engineering degree was awarded at Pennsylvania State University to a Mr. J.O. Keller, who transferred to IE from EE.



ave you ever been told, "But our business (depending on how you count beans), one prois different!!"? Usually this occurs whenever you attempt something new and different or disturb the old tried and true ways of doing things. It's true in the education business, too. Quality assurance, material control, facilities planning, staffing, performance measurement, strategic planning, etc., are subjects that we as industrial engineers preach and practice in the name of productivity improvement. Does it work—does it work in our business—does it work in your business? Is our business different? The answer is yes to all of the above.

well it should be, because more than 75% of U.S. jobs are in the service sector. We are in the business of providing a service. Our product is a Where do the resources come from since we well educated industrial engineer to serve a wide variety of industries following the formal education process. What of research? That is part of our educational process, not a product. Research results are a good byproduct, but the training of the individual is by far the primary purpose. And so you can challenge the purpose of many university functions, such as publications, texts, course planning, curriculum review, accreditation standards, thesis writing and review, examinations, contracts for outside research, and development. All exist for the purpose of taking a bright incoming student, our raw material, and through a value-added process, converting that individual to a professionally trained industrial engineer.

What of our business and how is it different? We operate an academic department with 28 faculty

fessional staff person who advises, four secretaries, and some 20 graduate assistants and undergraduate helpers. We have an operating budget of approximately \$1,650,000; 98% of that budget goes for people costs. In addition, we are responsible for an average of \$26,000 of equipment acquisitions each year and for external research and development funding of nearly \$400,000 annually on various projects. All of this enables us to turn out 130 industrial engineering graduates each year and to work with an undergraduate enrollment of 560, a graduate enrollment of 75, and a continuing education program Service industry productivity is a hot item and that reaches several hundred engineers throughout the year.

> don't "sell" our product? The R&D funding comes from a variety of sources, principally private industry. Equipment funding comes from gifts, grants, R&D funding, and some legislative appropriations through the university general fund. The operating budget comes mainly from tuition (approximately 50%) and legislative appropria-

> So-is our business different? Only because our resources as a public body come indirectly from our product. Accountability, management, effectiveness, efficiency, productivity, quality, and all the other tools and concepts of our trade as industrial engineers must be brought to bear.

Is it worth it?? We think so and we think you do, too. Would you let us know?

"Joint venturing" topic at interchange

r. and Mrs. Keith McRoberts, left, and Mr. and Mrs. Michael Draper pose together at the 27th Semi-Annual Faculty/Industry Interchange dinner held last fall. Draper, president of Sundstrand-Sauer in Ames, was guest speaker for the October 23, 1988, in-



terchange dinner. He discussed the "Impact of Joint Venturing on Engineering" based on his experience from the recent joint venture between Sundstrand in Ames and the Germanbased Sauer corporation. (Information supplied by Julie Micklavzina, IE'88.)

ouglas D. Gemmill, a native lowan, is back home to teach after earning two degrees from ISU. Doug originally wanted to teach math, so he earned a B.S. in math in 1972. Then the urge for adventure took over and Doug joined the Air Force and flew as a navigator all over the world until 1979. Before earning his master's degree in IE in 1986 from ISU, Doug worked in the IE department at Firestone in Des Moines, lowa, and as a management engineer intern at Mary Greeley Hospital in Ames.

Doug earned his Ph.D. in industrial engineering in 1988 from the University of Wisconsin, Madison, where he also performed research and lectured. Since coming to lowa State as an assistant professor, Doug has been teaching courses in quality control and industrial systems engineering.

A captain in the Air Force Reserve, Doug will be working with the Reserve Distribution Center at Robins Air Force Base in Macon, Georgia. His hobbies are golfing, reading, and all Cyclone athletic events. Doug and his wife, Loyas, like Ames and feel it is a good place to raise their two children, Sarah and Matthew.

ohn Jackman, his wife, Katie, and their children, Nathan, Brenda, Laura, and Philip, came to Iowa State in August 1987 from Pennsylvania State University. The Jackmans have lived in Ohio, New York, Massachusetts, and Pennsylvania. Perhaps John feels as if he is returning home because he was born in Davenport, Iowa. Before accepting a position as assistant professor in industrial engineering at Iowa State, John was an assistant professor and instructor at Penn State. His industrial experience includes working as a software engineer for Systems Modeling Corporation and as a research chemist and supervisor for Wyeth Labs, Inc.

John's B.S. degree in chemistry is from Rensselaer Polytechnic Institute, and his M.S. and Ph.D. degrees, both in industrial engineering, are from Penn State. John's research and teaching interests lie in computer applications in industrial engineering. "I think the key to productivity in

industry in the future is integration of computer systems and manufacturing systems via communication networks," he says. John feels MAP (manufacturing automation protocol) and TOP (technical and office protocol) are methods that could achieve this integration.

This past spring, John taught the senior design course, IE 441. His impression of the IE Department at lowa State is that it is providing a positive environment for learning in spite of a critical need for better facilities and more resources. He believes more time and resources for faculty involvement in research activities is needed.

Ichard J. Linn, assistant professor, joined the IE faculty in fall 1987 after completing his Ph.D. in industrial engineering at Pennsylvania State University. Richard grew up in Taiwan, China, and received his first diploma in mechanical engineering from the National Taipei Institute of Technology in Taiwan. His B.S. degree in electrical engineering is from Penn State and his M.S. degree in industrial engineering and operations research is from Virginia Polytechnic Institute and State University.

Before coming to ISU to teach, Richard had been a research and teaching assistant and a graduate assistant. He says he is enjoying his first "actual" teaching experience but prefers research and working with graduate students. Richard also worked in research and development at DuPont in Pennsylvania and in Taiwan.

Richard's primary teaching interests are computer-controlled manufacturing systems and material handling and production control. His expertise is in CAD/CAM. Richard feels that the IE Department has a very strong undergraduate program, but he would like to see more concentration in courses on manufacturing systems. He also would like senior students to have more opportunities to take elective courses.

Richard, his wife, Vicki, and 3-1/2-year-old David like the small town environment of Ames. The Linns are expecting their second child in August.

IE welcomes new faculty



Gemmill



Jackman



Linn

IE entrepreneur starts high tech business in lowa



knows where he is going. A 1986 ISU industrial engineering graduate and currently a graduate student, Dave is founder and president of CIMTECH, a computer software company. On April 1, 1987, with two people, about \$10,000 worth of his own paid-off computer equipment, and loans, Dave started his own company. Cimtechnologies Corporation. which stands for "computer-integrated manufacturing technology," is now worth around \$1 million to four major stockholders, including Sly, and employs 13 full- and part-time people. Apparently this business is no April Fool's joke.

The small but promising company had its start with the lowa State Innovation System (ISIS). ISIS is a business incubator for start-up high tech enterprises. Sponsored by Iowa State University, it offers qualified new companies business guidance along with low-priced space, telephones, secretarial service, computers, copying. and other business necessities. After a reasonable time ISIS tenants are expected to leave this sheltered environment and strike out on their own. Dave hopes to be able to move his office into Ames' new Research Park development this coming year.

ave Sly appears to be a young man who CIMTECH develops and installs computer software programs for industrial users and conducts usage training seminars for clients. Dave has been making factory installations of computeraided design (CAD) and computer-integrated manufacturing (CIM) software. His staff includes a computer scientist, a computer engineer, four full-time industrial engineers from lowa State. one full-time chairman/financier, a trainer, and a secretary. So far, Dave has installed standard computers in several lowa factories, selected their software, and trained their operators. His group is now developing its own software packages for computer-aided design for industrial engineering which he hopes to sell nationally. CIMTECH's first software package was recently accepted by a Denver firm. "Software is a \$5 billion-a-year industry, and we hope to get a piece of it," Dave says.

> To many friends and contacts, Dave is a typical, blue jean-clad graduate student. At age 24, he juggles a busy schedule that includes stockholder meetings, class exams, and major decisions associated with being president of a high tech business. His co-workers are sometimes in awe of an energy level that practically makes the aspiring young entrepreneur glow in the dark.

Hispanics in engineering at ISU

by Jaime Hernandez. IE 6

he Iowa State University Student Chapter of the Society of Hispanic Professional Engineers (SHPE) received the "Most Improved Student Chapter Award" at SHPE's annual conference in Los Angeles, California, in June. One of the largest national Hispanic organizations with over 6,000 students and professional members, SHPE is dedicated to the advancement of Hispanic engineers and scientists in employment, education, economic, and social welfare areas. The organization also seeks to increase the number of Hispanics entering engineering and scientific careers.

The ISU Student Chapter of SHPE started in 1986 when Hispanic students from the industrial and chemical engineering departments got together to organize activities to share their cultural, social, and technical backgrounds. During the 1987-88 academic year, the ISU chapter participated in a SHPE-sponsored program called "Advancing Careers in Engineering." The program included lectures by guest speakers, plant tours, the Hispanic Symposium, and an Interna- Ames, Iowa 50011.

tional Conference on Technology held at El Paso, Texas/Ciudad Juarez, Mexico.

The ISU Student Chapter has been supported from the beginning by the Minority Student Affairs Office and the Department of Chemical Engineering; the group is advised by Dr. Jorge Jeria and Dr. Peter Reilly. Support has also been received from Dr. Thomas Thielen, ISU Vice President of Student Affairs, and Dr. David Boylan, former dean of the College of Engineering. Also, the Hispanic American Student Union has enthusiastically worked with the chapter during the last two years.

ISU alumni can also get involved in this engineering society by sharing their background and experience with this increasing minority community. Alumni may send their suggestions and/or contributions to the Society of Hispanic Professional Engineers, ISU Student Chapter, IE Department, 212 Marston Hall, or to the Minority Student Affairs Office, 301 Beardshear Hall, ISU.

ISU participated in a year abroad study exchange with students from the University College of Swansea in Swansea, Wales, last five Swansea students will already have a month year. Peter O'Neil, Kile Snider, Kirstin Vanderhoef, and Brian Immel took courses in inventory control, thermodynamics, technical writing, linear programming, industrial relations, and electrical circuit theory during their year in Wales. The seven students from Swansea studied ergonomics, engineering economy, human resource management, and other IE subjects while at ISU. The exchange was coordinated by Don Leach, senior lecturer for the Management Science Department in Swansea, and Keith McRoberts, department chair, Iowa State.

The students found adjustments on both sides of the Atlantic. The British students had to adapt to a rigorous pace and continual evaluation at ISU while the lowa Staters had to get used to a more independent study environment (no guizzes or tests) and a heavily weighted final exam. While the lowa Staters were enjoying the pub life, ales, fish and chips, kebabs, and curries, the British students were enjoying 31 flavors of ice cream, delicious pizzas delivered to their door, 24-hour convenience shops, tacos, and frozen yogurt!

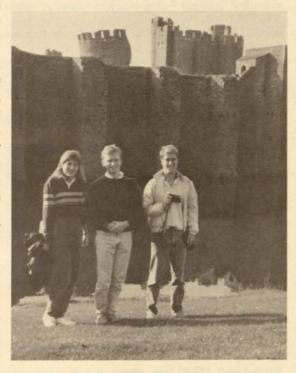
Swansea is located on the southern coast of Wales; the university is situated along the Swansea Bay.

Fall 1988 will start the fifth year for the IE Department's exchange program with the Uni-

our industrial engineering students from versity College of Swansea. Seven ISU students will be leaving the U.S. in late September to begin their cross-cultural exchange experience while of school at lowa State behind them.

IE students experience college life in Wales by Peter O'Neil IE'88

Editor's note: By the time you read this newsletter. Peter will be in Cameroon, West Africa, where he is serving in the Peace Corps for two



IE students Kirstin Vanderhoef, left. Peter O'Neil, and Brian Immel spent the 1987-88 school year on a study exchange with the University College of Swansea in Wales.

Enrollment

Undergraduate enrollment in industrial engineering and engineering operations totaled 560 students for the 1987-88 academic year; 25% of those undergrads were women. The department had 48 master's level students and 32 students working on Ph.D. degrees.

Degrees awarded

A total of 133 BSIE degrees were awarded in the period July 1987-June 1988. In the same period, eight Master of Science and Master of Engineering and seven Ph.D. degrees were conferred.

IE stats

s many of you know, the IE Department has held an Annual Awards Banquet since spring 1978. Our tenth banquet, held April 19, 1988, honored retiree Don Grant. The committee in charge of that banquet decided it would be a good idea to start a picture album. If any of you have pictures from past banquets and would like to share them with us, please send them to Lynn Franco, IE Department, 212 Marston Hall, ISU, Ames, Iowa 50011. Be sure to indicate who is in the picture and the year. Thanks for your help.

Say it with pictures

Alums-where you're at

Ronald H. Barnhart, IE'61, Vice President, Business Development, Honeywell Aerospace and Defense, Washington, D.C.

Robert W. Boeke, GE'48, MS'50, retired Dec. 30, 1986, from Deere and Company, Bettendorf, Iowa.

Luis J. Botero, MS'86, Development Manager, Union de Bananeros S.A. (Union of Banana Growers), Uniban, Columbia. One of the largest companies in Colombia to market bananas and other fruits and vegetables.

Joanne L. Bottger, IE'85, Technical Staff, AT&T Bell Labs, Red Bank, N.J.

Lisa A. Clark, IE'87, Project Engineer, Proctor and Gamble Mfg. Co., Iowa City, Iowa.

Tracey Cosgrove, IE'86, Engineer, FMS Development, Bell Helicopter Textron Inc., a subsidiary of Textron Inc., Fort Worth, Tex.

Manoj P. Dandekar, ME'82, PhD'87, Touche Ross and Company, New York, N.Y.

Donna Elliott, IE'84, Senior Staff Consultant, Arthur Andersen and Co., Chicago, Ill.

Jon V. Evans, IE'85, Manufacturing Engineer, Truth Division of Sealed Power Corporation, Owatonna, Minn.

Wayne E. Flory, IE'87, Industrial Engineer, Rockwell Collins, Cedar Rapids, Iowa.

Lee D. Graham, IE'85, NASA Flight Safety Engineer based at Johnson Space Center in Houston, Tex. Mission Controller responsible for safety issues on the external tank and all orbiter rocket engines.

M. Susan Hallbeck, IE'84, Graduate Student, Virginia Tech, Blacksburg, Va.

Holly K. Harlan, IE'83, Marketing Development Specialist, General Electric, Broadview Heights, Ohio.

John Ideker, IE'83, Competitive Analysis Engineer, General Motors Corp., Saginaw, Mich.

Kevin D. Katuin, IE'86, Estimator, McDonnell Douglas Astronautics Co., St. Louis, Mo.

Ted Landberg, IE'59, Computer Specialist, National Bureau of Standards, Washington, D.C.

Lisa Langguth, IE'83, married Doug Friedrichsen Jan. 30, 1988.

Shih-Ming (Ted) Lee, MS'83, PhD'86, teaching at Florida International University, Department of Industrial Engineering, Tamiami Campus, Miami, Fla. Currently in charge of the Computer Integrated Manufacturing Lab.

Lisa A. Leemans, IE'87, Industrial Engineer for Goodyear Tire and Rubber Company, Norfolk, Neb.

Steven L. Lidke, MS'84, wife Geri (Bartels) Lidke, son Kenneth born Sept. 2, 1987, Brooklyn Park, Minn.

Lisa Lorei, IE'87, Mediantic Healthcare Group, Washington, D.C.

James H. McCarville, IE'86, Management Engineer, Sarasota Memorial Hospital, Sarasota, Fla.

John A. McCarville, IE'86, Associate Industrial Engineer, Grocery Specialties Division, The Quaker Oats Co., Dallas, Tex.

Craig A. McElroy, EOp'70, MS '78 from University of Arkansas, MA '79 from Naval Postgraduate School. Senior Systems Engineer, Ford Aerospace and Communications Corp., Colorado Springs, Colo.

Michael N. McLaughlin, IE'86, Industrial Engineer, The Quaker Oats Co., Cedar Rapids, Iowa. Bruce B. McPheeters, IE'77, Senior Attorney, Popham, Haik, Schnobrich and Kaufman, Ltd., Minneapolis, Minn.

Beth A. Miller, IE'84, Manufacturing Engineer, Cummins Engine Co., Columbus, Ind.

Dale C. Moll, GE'47, Director of Quality, M.A. Mortenson Company, General Contractors and Construction Management, Minneapolis, Minn. Elevated to Fellow in the 19,000-member Construction Specifications Institute at the 1987 National Convention.

Carlos H. Navarro, ME'70, Production Manager, Fundicion of Metales, Bera, Lima, Peru.

Tom J. Nauman, IE'83, Manufacturing Engineer, Maquiladora Production Facility, Tjuana, Mexico. Employed by Topaz, Inc., San Diego, Calif. Topaz is a subsidiary of Square D. Married Connie Osborn of Des Moines, Iowa.

Barbara Nielsen (Molis), IE'81, Industrial Engineer, HON Co., Muscatine, Iowa.

Edward D. Nelson, GE'55, MBA'63 from University of Missouri. Currently President, Nelson Investment Group, Inc., Santa Teresa, N. Mex.

David L. O'Mella, IE '61, Director, Management Information Systems, Armament, Munitions and Chemical Command, Milan, III.

Paul R. Orr, IE'85, ME'87, Lincoln Sand and Gravel Company, Lincoln, Ill.

Nancy K. Perry, IE'81, MS'85, Manufacturing Engineer, Computer Service Group, Convergent Technologies, San Jose, Calif.

Scott H. Pinkerton, IE'87, Manufacturing Methods Engineer, McDonnell Douglas Aircraft, St. Louis, Mo.

Everett E. Rice, IE'75, ME'80, Administrative Consultant, Mayo Clinic, Rochester, Minn.

Javier Romeu, IE'79, Development Manager for Semiconductor Group, Texas Instruments. Returned recently from a three-year assignment with TI in France. Resides in Plano, Tex., and expected first baby in May.

Jennifer L. Rutz, IE'86, Sales Representative, Isoetec, San Francisco, Calif.

Ajeet K. Saxena, PhD'78, Business and Financial Valuation Manager, Touche Ross and Company, Los Angeles, Calif.

Ronald L. Seeber, IE'75, Director, Division of Extension and Public Service, and Associate Dean, Industrial and Labor Relations Dept., Cornell University, Ithaca, N.Y.

Michelle A. Shannon, IE'85, Assistant Product Manufacturing Manager, Hallmark Cards, Inc., Kansas City, Mo. Gary Shaw, IE'75, Project Design Engineer, Creative Automation, Abbotsford, Wis.

Jeff Skog, EOp'85, Loss Control Engineer, Zurich-American Insurance Company, Schaumburg, III.

Peter Sommerville, IE'84, 3M, Electronics Products Division, Columbia, Mo.

Ray Stanley, IE'63, MS'73, Project Manager, personal computer programming and training, UPS, Hunt Valley, Md. Muthuraj Valthianathan, MS'78, PhD'82, Director of Design Automation for Uniys Corporation, Pasadena, Calif. Mickey VonBergen, IE'65, General Manager, Warman International, Inc., Madison, Wis.

Patricia C. Weiss, IE'85, System Engineer, Proctor and Gamble, Green Bay, Wis.

he College of Engineering and the Alumni Professional Achievement Citation in Office of Iowa State University present annual awards to university alumni. As a department in the Engineering College, we may be unaware of alumni who are deserving of these awards. We are asking for your recommendation of names of individuals who would qualify for the following awards.

Distinguished Achievement Citation. This award honors a nationally or internationally known alumnus who is recognized for outstanding achievement and human betterment in fields such as, but not limited to, education, government, social welfare, humanities, sciences, agriculture, finance, arts, professions, business, and the home.

Alumni Merit Award. This award recognizes any graduate or former student who has made an outstanding contribution to human welfare which transcends purely professional accomplishments and brings honor to the univer-

Alumni Recognition Medal. The medal is given in recognition of long, loyal, and outstanding service to lowa State University through alumni activities.

Outstanding Young Alumnus. This award is made to any graduate or former student under 36 years of age (not having reached the 36th birthday before December 31 of the year in which the award is made) whose endeavors in professional, civic, business, performing arts, home-related, political, or similar activities are worthy of recognition and have brought honor to Iowa State University.

Engineering. This award honors individuals who have achieved superior technical or professional accomplishments in the areas of research, development, administration, education, and other engineering activities. The citation was established to recognize alumni whose chief claim to fame is professional competence and creativity. Faculty members of the College of Engineering at ISU are not eligible. However, faculty members who have left the university will be eligible after a period of five years. The award is limited to those who have either obtained a degree in engineering from ISU or who have been enrolled in a program leading to an engineering degree at ISU. Technical

Professional Progress in Engineering. This award is made in recognition of outstanding professional progress and personal development in a field of engineering specialization as evidenced by significant contributions to the theory and practice of engineering, distinguished service rendered to the profession, appropriate community service, and/or achievement in a leadership position. There shall also be evidence of recognition through citations and acceptance of achievements by colleagues and of the promise of continued progress and development.

institute graduates are not eligible.

Marston Medal. The Marston Medal is awarded to an engineering alumnus of at least thirty years standing in recognition of outstanding achievements in engineering.

If you know of an alumnus who is deserving of one of the above awards, send us his or her name and address, the name of the appropriate award. and we will do the rest. Send this information to Chair, Honors and Awards Committee, 212 Marston Hall, ISU, Ames, Iowa 50011.

Call for alumni awards

Can we help you help us? Please send information on how I can donate equipment to Industrial Engineering at Iowa State. Please send information on matching gifts from my employer. Please tell me how I can provide a major gift to the Department of Industrial Engineering at Iowa State. Please change my address to:
☐ Here is more current information about myself:
☐ Do you like our "new look" for the IE/ISU Systems Review? Please comment below.
2 50 you and out how look for the 12 100 Oystems never the lease confinence below.

ter of the Institute of Industrial Engineers (IIE) attended the 1988 IIE National Conference May 22-25 in Orlando, Florida.

The keynote address featured J.W. Marriott, Jr., Chairman of the Board and President, Marriott Corporation, followed by a productivity improvement panel with representatives from Allen-Bradley Company, Anheuser-Busch Inc., Baltimore

ine delegates from the ISU Student Chap- Gas and Electric Company, and Chrysler Corpo-

At the conference, ISU industrial engineering students met and talked with students representing universities all over the U.S. Students also helped out with over 100 technical presentations given by education and industry representatives and participated in a chapter development meeting to discuss ways to enhance and strengthen their chapters.

IE students participate in **IIE National** Conference by Michael C. Schmidt, IE'88

neering students shared over \$24,900 in scholarships awarded this spring at the annual IE For the first time this year, the Alpha Pi Mu Awards Banquet.

These scholarships, ranging in size from \$100 to \$2,100, are becoming more and more essential as government tightens the belt on financial aid. This means of recognizing academic excellence and outstanding achievements by IE students is possible in many different ways. Unrestricted funds given to the department allows us to recognize students for achievements and/or contributions to the department and the profession. These gifts are tax deductible and many employers

ecause of the generosity of alumni and have a "matching gift" policy. Donors may also friends in industry, 29 ISU industrial engibe specific as to recipients' qualifications.

> chapter gave an award to the most outstanding sophomore student. Also, the first Walter J. Lyons Memorial Scholarship was given this year. As mentioned on page 1, we will be awarding the Don Grant Scholarship to a deserving student for the first time at next year's banquet. If you are interested in supporting the Department of Industrial Engineering at lowa State in this way, please let us know. We will be glad to send you specific information on our gift program and areas in IE where funds are needed. Contact Lynn Franco, IE Department, 212 Marston Hall, ISU, Ames, Iowa 50011.

Scholar\$' dollar\$

Department of Industrial Engineering 212 Marston Hall **Iowa State University** Ames, Iowa 50011

Writer/Editor: Marcia Black

Contributors: Donna Cerka, Lynn Franco

Cartoonist: Paul DeJong

Prepared by the Office of Editorial Services College of Engineering ISU-ERI-Ames-89012