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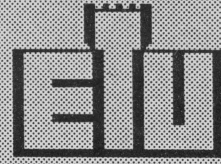
School of Technology

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Dr. Walter A. Klehm Creates Trust

Creation of the first Eastern Illinois University Foundation's trust agreement with Dr. and Mrs. Walter A. Klehm put Eastern's Tenth Decade Campaign over the \$5 million mark. The scholarships was established to provide funds for majors in the College of Applied Sciences. Dr. Klehm is a dean emeritus of the college.

EIU President Stan Rives called the Klehms' action an important stimulation to the University's effort to assure continued excellence through raising the private dollar. "I greatly appreciate the confidence in Eastern and its future shown by Walter and Lucille Klehm," Rives said.

The Klehm trust will eventually provide funds for an equal number of scholarships annually to majors in the Schools of Home Economics and Technology. Each stipend will pay for the student's tuition, with fees to be his or her responsibility.

The Klehms have remained active in Charleston community affairs. "Lucille and I are indebted to Eastern and its past students for making it possible for us to have the success we had. We are extremely interested in helping to provide worthy students an opportunity to receive a superior education in the fields of home economics and industrial technology.

"We believe that in the decades to come Eastern will continue to provide such an opportunity for the state's students. We want to help students with promise to succeed," Dr. Klehm said.

Appreciation to the Klehms for their creation of the EIU Foundation's first trust was expressed by David L. Musgrave, Robinson, Foundation president. "The Klehm trust means that many students in the next century will become meaningful citizens of our society. We are honored to have the Klehm trust," he said.



Marge Lugar, School of Technology secretary, for over 25 years reminisces with Walter A. Klehm over the changes that have taken place through the years.

Building Renamed in Klehms Honor

Eastern Illinois University recognized more than 50 years of outstanding service and support by renaming its Applied Science Building in honor of Dr. Walter A. Klehm. The Board of Governors of State Colleges and Universities approved renaming the building Klehm Hall at its December meeting in University Park. The event was commemorated on February 25, 1988 with a reception for Dr. and Mrs. Klehm in the newly named Klehm Hall.

Dr. Klehm came to Eastern in 1938 as head of the industrial arts program. Under his leader-

ship the program grew to become the state's leading producer of industrial arts educators. He became Dean of School of Industrial Arts and Technology in 1967 and retired in 1970.

Since then, he and his wife Lucille have remained strong supporters of the University. Last month, they created the first EIU Foundation trust agreement. The trust put Eastern's Tenth Decade Campaign over the \$5 million mark. It will provide funds for scholarships to Home Economics and Technology majors in the College of Applied Sciences.

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Dr. Larry D. Helsel School of Technology

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LETTER FROM THE CHAIR

The past few years have been ones of tremendous accomplishment by faculty, students, and staff in the School of Technology at Eastern Illinois University. Significant progress has been made in all areas, and I am proud and pleased to share our good news with you.

The faculty in the School have worked diligently to update the curriculum in Industrial Technology and Technology Education to better reflect current practices in industry and technology. The acquisition of new instructional equipment, through major contributions and appropriated dollars, has been extremely beneficial in making the curricular changes more relevant. CAD/CAM, robotics, material testing, and computerized typesetting have been installed in various laboratories to support new courses and update content and activities in existing ones. The new directions, courses, and equipment have made it essential for faculty to be involved in retraining and professional development activities that keep them up-to-date in emerging areas of technology. In the past three years, more than 30 workshops and special courses have been completed by technology faculty in areas including but not limited to computer aided design, robotics, computer integrated manufacturing, computerized typesetting, computer simulation, statistical process control, and plant layout and material handling.

The faculty have also been busy with research and professional activities related to the emerging areas of technology mentioned above. Several faculty have given presentations on these areas at national and state conferences and have had articles published in the professional journals.

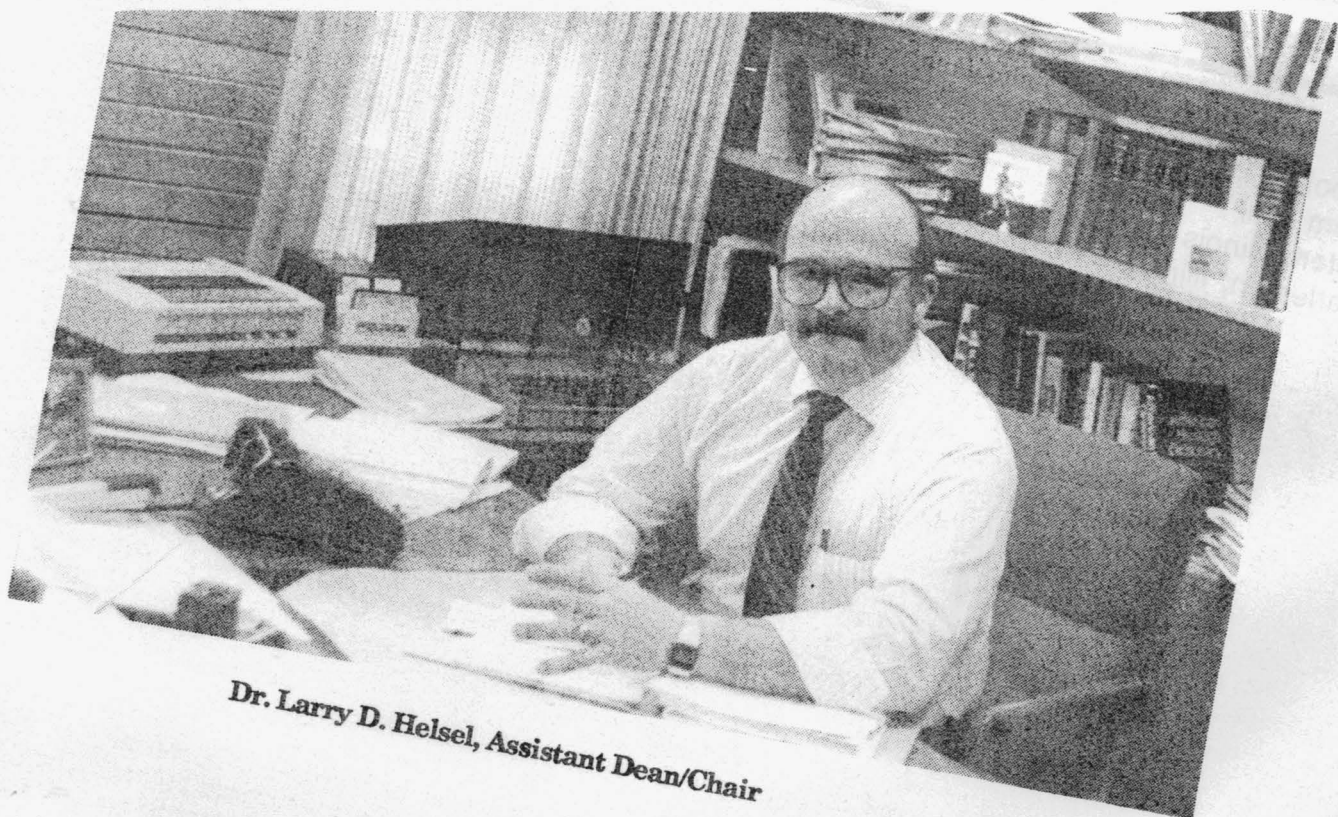
Support for deserving students in the School of Technology has increased dramatically as a result of new scholarships. The first School of Technology Alumni Scholarship will be presented this spring at the annual banquet. This Scholarship was made possible through the generous gifts of the alumni and faculty of the School. Also, a magnanimous gift from Dr. Walter Klehm, retired Dean of the School, will be used to establish full scholarships for future technology majors. Dr. Klehm has provided tremendous support to our School since his retirement and was recently honored by the College of Applied Sciences at a reception held in the newly named Klehm Hall.

On a more somber note, Dr. Charles Elliott, Professor Emeritus in the School of Technology, died on February 22, 1988 after a short illness. Dr. Elliott was the trustee of Epsilon Pi Tau while at Eastern, and during his retirement he established the Charles A. Elliott Scholarship for students majoring in Technology Education.

The School of Technology is proud of the many successes of its faculty, students, and alumni. Its graduates have been successful in many areas of education and industry and it is especially rewarding to the faculty to find out that one alumnus has reached the highest level of his or her profession. Our congratulations to Dr. C. Nelson Grote, recently inaugurated as the 11th President of Morehead State University, Morehead, Kentucky.

Sincerely,

Larry D. Helsel
Assistant Dean/Chair



Dr. Larry D. Helsel, Assistant Dean/Chair

Industrial Technology Program Receives Maximum Reaccreditation

By Larry D. Helsel
Assistant Dean/Chair

The National Association of Industrial Technology has recently notified Eastern Illinois University that its Industrial Technology program has been reaccredited for the maximum period of six years, according to Dr. Larry Helsel, Chairman of the School of Technology. Helsel said the Industrial Technology program at Eastern is one of two in Illinois and 35 in the country to receive NAIT Accreditation. Accreditation is a process which assures that industrial technology programs meet or exceed quality standards established by the accrediting association, according to Helsel.

The Industrial Technology program is one of two academic programs in the School of Technology which is part of the College of Applied Sciences. The Industrial Technology program was approved in the late 1960s, to prepare technical managers for industry. Graduates of the program are employed in a variety of management and engineering related positions in automotive, electronics, aerospace, and other manufacturing and construction companies around the country.

Recently, a new option to the Industrial Technology program was approved by the Board of Governors. The Manufacturing Technology option has been added to the general option in Industrial Technology to prepare students to meet the challenges of high tech industries. Several new technology courses were developed for this option and state-of-the-art equipment was acquired to support these and other courses in the program.

The accreditation report from NAIT cited several strengths of the program according to Dr. Wayne Coleman, who serves as Program Leader for Industrial Technology. Coleman said state-of-the-art facilities, well qualified students, and curriculum development were but a few of the strengths recognized by the accrediting association. The strength of the program, according to Dr. Coleman, is its interdisciplinary nature. He said the mix of courses taken from math, chemistry, physics, economics, and management, in combination with the core courses in industrial technology, has produced students with a broad interdisciplinary base for employment in technical management and engineering related positions.

According to Dr. Barbara L. Richter, Dean of the College of Applied Sciences, Helsel, Coleman, and the other School of Technology faculty are nationally known for their expertise in the field. Both Coleman and Helsel have served on several accreditation teams for NAIT and Helsel was recently named the Outstanding Regional Director for the Association. They are among eight faculty assigned to the Industrial Technology program.

Future proposed plans for the School of Technology include the establishment of a technical service center to provide consulting and training services to local and regional industries. The School is also currently developing a computer integrated manufacturing lab. This lab will be used to teach automation, robotics, computer aided design, and computer numerical programming. This lab and the other facilities used by the School of Technology programs are located in Klehm Hall, formerly the Applied Sciences Building. The building was recently named for Dr. Walter A. Klehm, retired Dean of School of Industrial Arts and Technology.

Graduate Studies

The Master of Science degree program has grown to 56 active graduate students on-campus and at the Chanute Air Force Base. Of this total, 29 have chosen the Technology option, 19 the Technology Education option, and eight are yet undecided.

Last academic year, 7 were graduated in Technology Education and 13 in Technology. As for this academic year's fall semester, 3 completed their Technology Education degrees and 3 earned their degrees in Technology. Seven persons should graduate this spring, 2 in Technology Education and 5 in Technology. Ten persons are scheduled to graduate in the summer of 1988, making a total of 23 for the academic year.

Three new courses have been proposed for the graduate program: Advanced Manufacturing Management, Advanced Computer Integrated Manufacturing, and Industrial Systems Simulation. These courses will add to the quantitative nature of the Technology degree and compliment the undergraduate Industrial Technology degree.

Existing courses have been upgraded in keeping with a follow-up study's recommendations. A Technology Education core course,

Continued on page 7

CIMCORP Donates Robots to Eastern

By Jeffrey D. Moore Student Contributor

Eastern Illinois University's School of Technology has received a donation of 27 industrial robots from CIMCORP, Inc. of Aurora, Illinois. Dr. Tom Waskom, associate professor in the School of Technology, worked closely with CIMCORP to finalize the \$345,240 robotic donation. Dr. Larry Helsel, assistant dean and chair of the School of Technology, has said the retail value of the donation is about \$1 million.

In CIM a main frame computer is utilized to control all aspects of the design and production of products. "One of the main advantages of it (CIM) is that you can make instant changes in the design and dimensions with the computer," Waskom stated.

Waskom is the chairman of a seven-man committee formed to govern the implementation of the robots and the designing of a CIM laboratory. He said if funds are available it will take approximately one and a half years to fully equip the laboratory. The estimated cost of the project is about \$750,000.

Waskom said the CIM lab would incorporate a host computer, CAD (Computer Aided Design) System, manufacturing machines such as lathes, drill presses and milling machines, material handling and storage devices.

When asked about the financial incentives that might influence a company to invest in CIM, Waskom said, "You can actually reduce your overhead by reducing hourly salaries and benefits plus it gives you the ability to move workers and to better utilize your skilled people."

The CIM lab will enhance educational opportunities in the School of Technology at both undergraduate and graduate levels. A new manufacturing option is being offered this semester. Students enrolled in CAD, CNC Programming, Machine Design, CIM, Plant Layout, and Electronics will benefit from the new technology in the CIM laboratory.

It is very much out of the ordinary for a school such as Eastern to have such resources at its disposal. "I don't think there are any state supported institutions with industrial technology programs that have the level of sophisticated equipment that we have as a result of this donation," Helsel said.

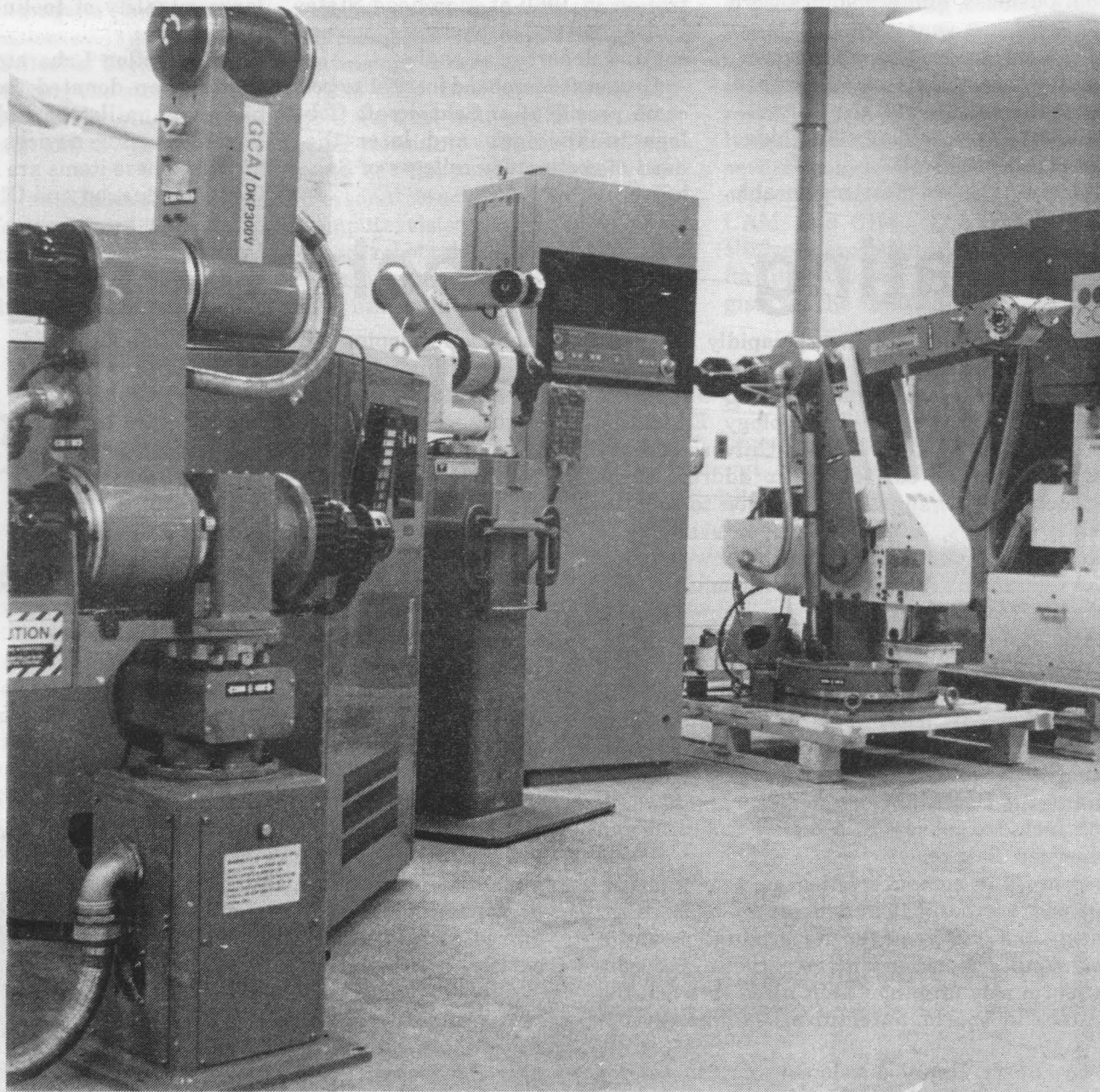


Photo courtesy of Eastern News

Under the conditions set by CIMCORP, Eastern has the option to sell or trade excess robots and accessories to other schools or to industry for the purpose of generating funds to be utilized in the School of Technology. A portion of the funds will be used to purchase computer hardware and software, controllers, and machine tools.

The ultimate goal of this project is to create an authentic industrial environment that will assist in educating students and allow them to meet the high tech needs of industry. Waskom said that he hopes that the CIM laboratory can be used "in conjunction with private industry. We need to develop a marriage between industry and education."

EIU Alumnus Joins List of University Presidents

By Craig Edwards, Eastern News

Nelson Grote recently joined the list of four Eastern graduates who have become university presidents.

Grote, who graduated in 1950 with a bachelor's degree in education from Eastern, became the 11th president of Morehead State University in Morehead, KY, last July.

Like Eastern, Grote, 59, said Morehead State University grew from a teachers college to a full-discipline university.

"We (Morehead) have a strong history in teacher education," Grote said, adding that one of his priorities as president is not to lose sight of the university's mission to provide a quality education.

"We're located in Eastern Kentucky where education is so necessary," Grote said, reflecting on the fact that enrollment grew 10 percent last fall and is projected to grow 7 percent in the coming year. Morehead State University currently has an enrollment of 6,590 students.

Unlike many universities with enrollment limits, Grote said Morehead can "grow as much as we have room for."

"Our only limit is financial resources," Grote added.

A major objective of Grote's is to develop some stability at the university since there has been a lot of turmoil and changes in the past year. He said the schools of education, business, and economics were recreated last year.

"I want to develop an environment where people can feel good about themselves and the university," Grote said, adding that things are going very well.

Grote said his most memorable

experience at Eastern was meeting and marrying his wife, Wilma, who also graduated in 1950.

"We were the first couple in the history of Eastern to graduate together," Grote said, adding he also has fond memories of living in "Vets Village," a group of house-trailers located across from Lantz Building.

Grote, like many other veterans, returned to Eastern after W.W. II and these housing arrangements were made available to him. "The only dormitory on campus at that time was Pemberton," he said.

"We had running water, but we had to run after it," Grote said, recalling that they had to go to a central building for showers and cooking water.

Grote also remembered the construction of Booth Library. "We couldn't figure out why they were building the library so far off campus and out in the woods," he said, adding that when it opened, classes were cancelled and everybody helped carry books from the old library in Old Main to the current location.

Grote said he saw a lot of changes when he returned for homecoming celebrations.

After graduating from Eastern in 1950, Grote received a master's degree at the University of Missouri-Columbia and a doctorate degree at the University of Illinois.

The Illinois native began his career in higher education administration in 1960 at Morehead State University as an associate professor and department chair.

Grote left Morehead in 1971 to become president of Schoolcraft College in Michigan and later the head of community colleges of Spokane.

Industries Support School of Technology

The last few years have been ones of transition for the School of Technology. Today's industrial standards, a new manufacturing option, and the addition of several new courses created the need for a modern manufacturing laboratory and updated equipment in some areas of the existing laboratories. Business and industrial donations have provided the School of Technology with some of the hardware and software required to satisfy these needs. Mr. Don Armel and Ms. Debbie Woodley received a \$16,800 equipment donation from Family Circle and \$5,000 in photographic supplies from World Color Press for the Communications Laboratory. The Family Circle equipment donation included copiers, duplicators, a projection camera and a paper cutter. A grant of \$500.00 from the Gravure Education Foundation also provided additional materials for the reference library for Communication Technology students.

Due to the efforts of Dr. Ron Suttiff, the Engineering Graphics Laboratory received a special grant from the Computer Vision Academic Assistance Program. Another grant assisted with the addition of CAD/KEY and VERACAD software at a 60% discount or a savings of approximately \$30,000. These grants have provided industrial quality software for the students in the School of Technology. Dr. Tom Waskom received a large quantity of tooling and machines from various industries for the Production Laboratory. DoAll Corporation donated tooling, drill bits, end mills, carbide inserts, and measuring devices valued at \$5,079. These items are being used in the production and CIM Labora-

tories. Marquette Welding and Steel Supply Company provided a Delta production gang drill press and accessories with a donated value of \$1,000. Carbide inserts, lathe and mill tool holders, measuring devices, and various educational material to be used in the machining area were donated by Kennametal Incorporated at a value of \$7,047.

In May 1987, Dr. Waskom arranged for the donation of twenty-seven industrial robots and accessories from CIMCORP, Inc. The pedestal style robots vary from five to one hundred-fifty pounds capacity. Approximately nine of the robots are being used in the CIM laboratory while the others will be sold or traded for equipment that may be utilized in the School of Technology laboratories. The total value of the robots and accessories is \$345,240.

Kal Kan Foods, Inc., Mattoon, Illinois recently donated an IBM personal computer valued at \$4,045 to the Power and Energy Lab. Mr. Ray Richardson will use the computer in the development of prototype robotics controllers currently being researched under his direction.

The addition of this equipment has provided valuable updated equipment and replaced various older pieces of equipment. As technological advances continue at an ever increasing rate, donations such as these will play an increasing role in providing current technology for student use in learning and research.

Updating the Technology Curriculum

Technology is changing so rapidly that it is difficult for business, industry, and education to keep up with the transformation. The Industrial Technology and Technology Education programs at Eastern Illinois University have restructured the curriculum to address these technological changes. In addition to the curricular changes, funding has been available to purchase equipment for use in the new courses. The equipment improvements include typesetting and desktop publishing systems, robots, CAD/CAM systems, and material testing devices.

The most significant addition to the School of Technology curriculum has been the new Manufacturing Technology option to the Industrial Technology program approved by the University and the Board of Government. The new option includes courses of a highly technical and advanced nature.

Courses in computer integrated manufacturing and mechanical and manufacturing technology are now required for graduation and a new faculty member with experience and education in this area has been hired to teach the courses in the Manufacturing Technology option.

Dr. Larry Helsel developed two courses for the Manufacturing Technology option. "Computer Numerical Control Programming" and "Computer Integrated Manufacturing" which is a detailed study of the critical elements in automated and computer integrated production systems. Topics of study in the CIM course will be group technology, computer process planning, flexible manufacturing systems, and CAD/CAM.

Dr. Howard Nelms has contributed to the op-

tion by developing a new course "Computer Aided Drafting" which will emphasize computer aided drafting equipment and graphic techniques. New equipment and software has been purchased and installed in a recently remodeled lab specifically for CAD and CAM instruction.

Mr. Mahyar Izadi developed five new courses: "Statics and Strength of Materials," a study of systems of forces and couples application of mechanics to structural analysis; "Machine Design"; "Applied Thermodynamics," a study of basic laws governing energy transmission; "Work Measurement and Method Design," which addresses the principles of motion and time study and methods engineering for the purpose of increasing productivity and reducing human effort; "Plant Layout and Material Handling," a study of the arrangement of physical facilities and material handling to optimize the interrelationships among operating personnel, material flows, and the methods required in achieving enterprise objectives efficiently, economically, and safely.

Other changes have taken place or are currently under way within the SOT. Technology education has added a new course and is planning the restructuring of another. The graduate program is in the process of gaining approval for three new courses.

Mr. Donald Armel developed the course "Computer Assisted Graphic Communication" which offers an indepth look at the use of computers for exposure control, graphic arts estimating, advanced typesetting, and pagination systems. The growing technology of desktop publishing has been introduced in the course as a major unit of study.

Dr. Clifford Strandberg has proposed that the "Organization of Subject Matter" course of Technology Education be expanded to include evaluation topics. The evaluation topics include: student evaluation, methods of measurement and program evaluation.

The Master's of Technology program has three new courses proposed: "Industrial Systems Simulation", studies the modeling of industrial processes and systems by computer; "Advanced Manufacturing Management", which offers an advanced study of technical management areas in manufacturing operations to include such topics as; capital investment, decision support systems, and productivity improvement techniques; "Advanced Computer Integrated Manufacturing", pursues a study of flexible manufacturing systems, machine vision, automatic identification, and artificial intelligence.

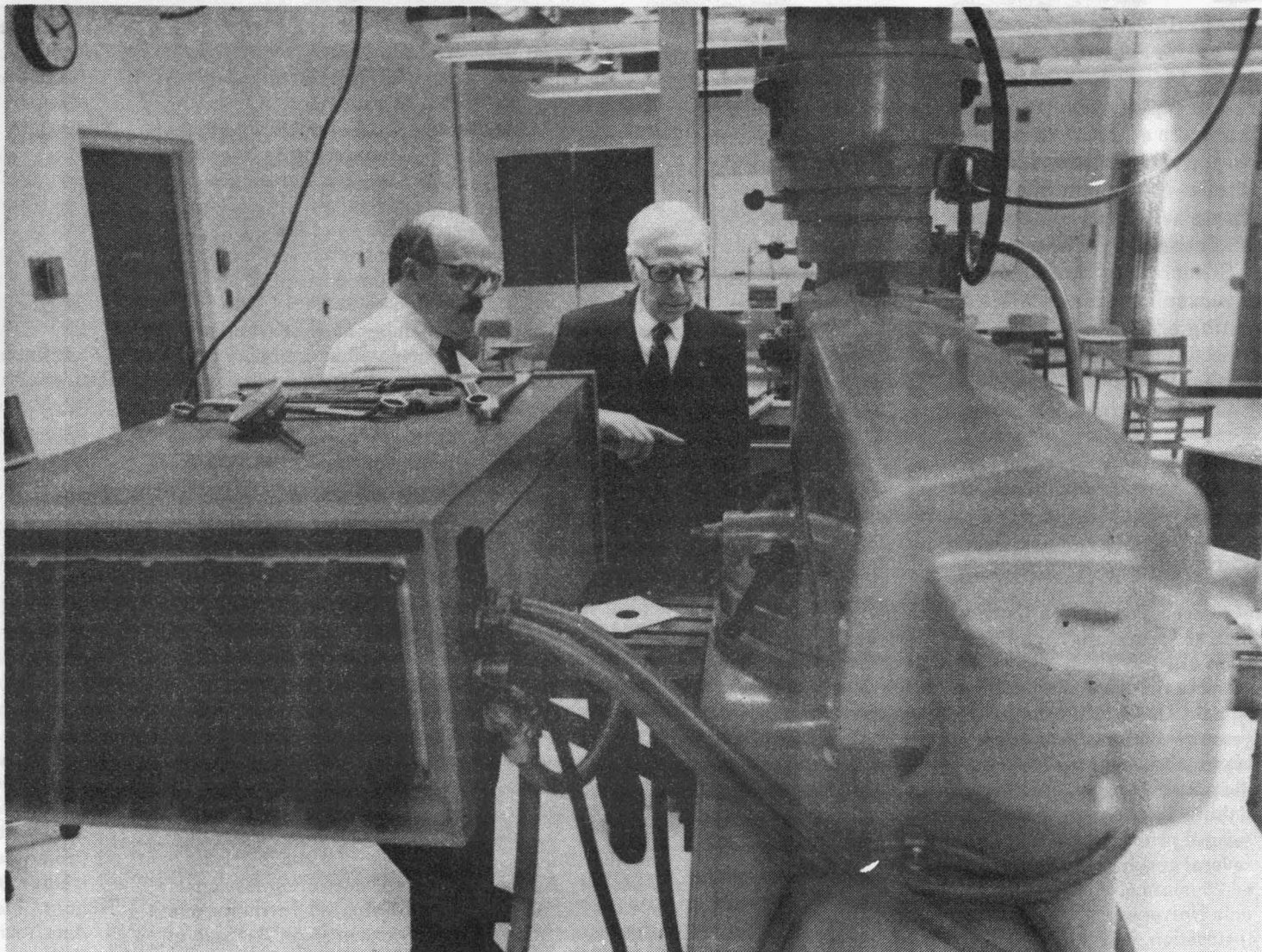
In addition to the programs' improvements, several new workshops have been developed and continually offered over the past few years. Mr. Izadi developed a workshop for continuing education entitled "Japanese Manufacturing Techniques," which covers a theoretical overview and the detailed planning and execution steps required to implement Just-in-Time techniques.

Mr. Louis Butler developed a new workshop: "Fundamentals of Robotics: Theory and Application" which is designed to introduce students to robotics. Mr. Donald Armel has been conducting the "Introduction of Micro Publishing" workshop he developed. In this workshop, a contrast is made between word processing and desktop publishing, as to how it is used, how its operation, and the knowledge base it requires.

by Mori Toosi

Computer Integrated Manufacturing, better known as "CIM" is a concept that promises to revolutionize the methods used to produce material goods. But what is CIM? Within the last two years or so, it seems that every issue of every professional journal related to technology is replete with articles about "CIM". Well established professional associations are creating splinter groups of professionals interested in this new technology and new associations have been chartered, nationally and internationally, to help advance "CIM" research. "CIM" and related topics are subjects of special seminars, workshops, and special courses being offered by Universities, and professional associations worldwide. Even the United States government, through the National Bureau of the Standards, has been involved in "CIM" research.

Why is "CIM" getting so much attention and gathering such momentum, and why is it still one of the most misunderstood concepts? "CIM" is often misused by laymen and professionals who are describing or discussing CAD/CAM technology. CAD/CAM is generally used to describe a computerized manufacturing cell which may consist of several computer controlled production machines and a material handling system. In such a system, only data required to perform the physical tasks are communicated between these machines. Other essential data for planning, organizing, and controlling manufacturing are not integrated with the physical operations. A truly computer integrated manufacturing system (CIM) includes not only computer control of manufacturing but also incorporates other essential data such as, inventory, line balancing, manufacturing lead time, purchasing, packaging, and cost analysis into the process of the efficient production of parts and products.



Dr. Larry Helsel and Dr. Walter Klehm, Dean Emeritus, inspect the CNC Lab equipment.

Domestic industries are losing ground to foreign producers, and without appropriate action by industry, education, and government this trend will continue. Vision, strategic planning, and action by these institutions are needed to prepare the young adults for this revolution in manufacturing. The faculty in the School of Technology at Eastern are taking the steps necessary to prepare their students for the next decade and the next century.

Room 212 in Klehm Hall has been transformed from a seldom used all-purpose laboratory to the Computer Integrated Manufacturing Lab. The transformation was

dramatic. The more than 2,000 square feet of space in that lab was remodeled during November and December of 1987 by Eastern's physical plant staff. New paint, new lighting, and floor tile represent only a portion of the nearly \$10,000 spent to provide an outstanding instructional facility for Technology students.

The CIM Lab now houses the CNC vertical mill and eleven computer terminals with the latest versions of "Personal Designer" and "Personal Machinist" software by Computervision. In the very near future robots donated last year will be moved into position beside the mill and will be used to load and

unload parts for the mill. Students and faculty are busily working with robots, computers, and machining centers to develop the best instructional environment possible.

The purchase and installation of a new mill, turning center, additional computers, and automated storage and retrieval equipment is planned for the near future. Completion of this project will effectively facilitate the learning process in several courses in the curriculum, especially those related to CAD, CAM, and CIM. The faculty and students are committed to having a facility that will prepare technologists for the 1990's and beyond.

TELFUND '88

Students and faculty from the School of Technology were "on the phones" this past fall for the School's third annual Telefund activity. More than 100 individuals joined in this year's effort to contact alumni and other supporters of the College.

Over \$13,000 was pledged to the College, of which in excess of \$4,700 was designated for Technology. More than 1900 College alums were reached by phone, of which over 460 were new pledges. Undergraduate and graduate student scholarships, and professional development activities for students and faculty have been made possible by such monies received in the past.

The University Foundation Office reports that the Tenth Decade Campaign, an institution-wide development plan, has passed 90% of its goal. The campaign is in honor of Eastern's centennial in 1995. It expects to top the original \$5 million goal this spring, and the University plans to continue to campaign, as there is a growing need for such

support. University President, Stanley Rives has noted that less than half (38%) of Eastern's total support comes from public monies. Therefore, he feels we are no longer a state-supported institution, but rather a state-assisted institution. He attributes the decrease in public funds as the reason for private fund-raising efforts such as the Telefund. The Tenth Decade Campaign is "to provide money beyond appropriated funds for the general advancement of the University with special attention to enhancing Eastern's academic program."

We would like to take this opportunity to thank contributors for their continued support as we strive to recruit outstanding students to our program and enhance their educational opportunities. Persons who have not been given an opportunity to contribute or those who would like to make additional contributions, may contact us for more information. These contributions represent a very valuable part of the future of the School of Technology.

Community College Articulation

Faculty members from the School of Technology have visited all 49 community colleges in Illinois from the southern tip to the northern border and out to the far west. This was done as a part of an extensive effort to acquaint community college faculty, staff, students, and administration with the programs in Industrial Technology and Technology Education.

An outcome of these visits was the organization of three round table discussions involving School of

Technology personnel and faculty and administrators from community colleges in east central Illinois, northwest Illinois, and the northwest Chicago areas. These meetings gave both educational entities an opportunity to meet, listen to each other, and make decisions about articulation problems. As a result, the School of Technology should see improved community college articulation and increased numbers of transfer students in the technology programs.

Upcomming Schedule of Events

- | | |
|-------------|---|
| April 21-23 | American Industrial Arts Student Association State Conference at EIU. |
| April 22 | Technology Education Exhibition in the Old Ballroom, 8:00 to 12:00. |
| May 7 | Second Annual School of Technology Golf Tournament. |

School of Technology New Faculty

Several new faculty members have joined the staff of the School of Technology in the last few years. In some cases, these individuals were hired to replace faculty members who left Eastern to go to other institutions of higher education or to industry. However, two new instructional positions have been approved in recent years to keep up with increasing enrollments in Industrial Technology. The new faculty members in the School have come highly recommended and carry excellent credentials for their respective teaching areas.

The following is a short profile of each of the new faculty in the Technology Education and Industrial Technology programs:

Mr. Don Armel, Instructor

Teaching Areas: Communication

Education: B.S., Printing Management and M.S., Vocational Education, Indiana State University. Has started doctoral work at Southern Illinois University.

Experience: Don held a teaching position in graphic arts at Metamora High School, Metamora, Illinois from 1980 to 1984. He also has experience in the printing industry as an estimator and salesman.

Personal: Don's father and uncle have more than 70 years of combined experience as graphic arts teachers in schools in Indiana.

Professional: Mr. Armel has conducted a Desktop Publishing Workshop, held management positions in several printing companies and has memberships in several graphic arts organizations. He has completed 25 hours of Ph.D. graduate work at Southern Illinois University with a concentration in curriculum, instruction, and media.

Mr. Louis Butler, Instructor

Teaching Area: Power and Energy

Education: B.S., Technology Education; M.S., Technology Education, Eastern Illinois University. Has started doctoral work at Southern Illinois University.

Experience: Louis has three years teaching experience at the secondary level and more than nine years of industrial experience with R.R. Donnelly and Kal Kan. In addition, he has worked as a training coordinator through a Lake Land College grant program.

Professional: Mr. Butler currently serves as Technology Education Club advisor and is assisting with the Epsilon Pi Tau honorary fraternity. He plans to complete his Ph.D. in Occupational Education with a concentration in Industrial Training this year at S.I.U.-Carbondale.

Mr. Mahyar Izadi, Instructor

Teaching Areas: Industrial Mechanics, Plant Layout and Material Handling and Manufacturing Management.

Education: B.S., Mechanical Engineering Technology, Franklin University; M.S., Manufacturing Engineering Technology, Murray State. Has started doctoral work at Southern Illinois University.

Experience: Mahyar began teaching at Eastern in the fall of 1984 as a temporary instructor. As a student at Franklin he worked as a tutor in calculus, physics, and statics.

Professional: Mahyar is a member of several engineering societies and has participated in a number of engineering related and management related short courses and seminars. He is especially interested in the areas of computer integrated manufacturing and plant layout. Mr. Izadi has completed 40 hours of graduate work in education with a concentration in Industrial Training at S.I.U. - Carbondale. He plans to finish his doctorate degree in 1989.

Dr. Ronald Sutliff, Associate Professor

Teaching Areas: Engineering Graphics, Computer-Aided Drafting and Design

Education: B.S., Michigan State University; M.S., University of Michigan; Ph.D., Industrial Technology, Purdue University.

Experience: Ron has more than eight years of college level teaching experience in engineering graphics, machine drafting, computer-aided design and industrial design. In addition, he has fifteen years of industrial experience as a tool designer, draftsman, and machinist.

Professional: Ron is a member of several professional organizations and has participated in numerous professional seminars and workshops in the area of CAD and Engineering Graphics.

Dr. Tom Waskom, Associate Professor

Teaching Area: Manufacturing

Education: B.S., East Texas State University; M.S. and Ph.D., Texas A & M University.

Experience: Dr. Waskom has had a total of seventeen years of teaching and research in the field of education. Prior to coming to Eastern he was Assistant Professor of Engineering Technology at Texas A & M University. He has attended more than fifteen workshops and seminars in manufacturing.

Professional: Dr. Waskom has been involved in a number of research projects and has been principal investigator on a research program sponsored by the College of Veterinary Medicine at Texas A & M. He has served as a consultant to industry on several occasions and has had several articles published related to industrial materials and manufacturing processes.

Mr. Morteza Toosi, Assistant Professor

Teaching Areas: Machine Design, Thermodynamics, Statics and Strengths and Computer Integrated Manufacturing.

Education: B.S., Mechanical Engineering Technology; M.S., Engineering Technology

Experience: Mr. Toosi was a visiting lecturer at Murray State University in Mechanical and Manufacturing Engineering Technology. He also has eight years experience as a plant manager.

Research Interests: While at Murray State, Mr. Toosi designed and built an industrial size hydraulic robot for which he received several awards. Mr. Toosi is continuing his research in robotics at Eastern.

Professional: Mr. Toosi had completed 30 hours of graduate work beyond his masters degree and is currently enrolled at S.I.U. - Carbondale. He is pursuing his Ph.D. in Education with a concentration in Industrial Training.

Ms. Debbie Woodley, Instructor

Teaching Area: Communication

Education: B.A., Graphic Design; M.S., Technology, Eastern Illinois University

Experience: Ms. Woodley served as a graduate assistant in the communications lab during the 1985-1986 academic year. She also completed an industrial internship with World Color Press in Effingham, Illinois.

Research Interests: Ms. Woodley is currently conducting research on training practices and procedures within the Graphic Arts Industry. She is also project assistant for Sex-FAIR, a research project which promotes equitable teaching practices in non-traditional curriculums.

Honors: Ms. Woodley was the recipient of a Graphic Arts Technical Foundation Graphic Communications Fellowship. The Fellowship is awarded for the purpose of supporting advanced education in graphic communications.

Professional: This spring Ms. Woodley will have completed 27 hours of graduate work in education with a concentration in Industrial Training at the University of Illinois. She plans to finish her Ph.D. in 1990.

Mr. Ray Richardson, Instructor

Teaching Area: Electronics

Education: B.S., Industrial Technology; M.S., Technology, Eastern Illinois University

Experience: Mr. Richardson worked as an industrial engineer for Trailmobile in Charleston, Illinois and recently completed an internship with Kraft, Inc., Mattoon, Illinois.

Research Interests: Mr. Richardson has been involved in the development of a prototype controller for industrial robots based on microcomputer control. He has also developed software for the CNC equipped milling machine at Eastern.



School of Technology faculty and staff, front row: Wayne Coleman, Robert Sonderman, Gene Strandberg, Ray Griffin, Charles Watson, Howard Nelms, Back Row: Mori Toosi, Ron Sutliff, Louis Butler, Larry Helsel, Assistant Dean/Chair, Barbara Richter, Dean, Marge Lugar, secretary, Tom Waskom, Deb Woodley, Mahyar Izadi, and Don Armel.

Graduate Students Provide Essential Support to the School of Technology

Gary J. Voltolina is an assistant in the CAD/CAM laboratory. Gary works with students in other graphics classes and also with CAD students during their laboratory studies. He is a graduate of Dwight D. Eisenhower High School, Blue Island, and of the Industrial Technology program at Eastern Illinois University. His undergraduate option in technology was electronic.

Gary plans to enter the CAD/CAM industry and later own his own CAD/CAM consulting agency. He will earn a Master of Science in Technology degree this summer.

Jean Zhang supervises students in the CAD laboratory in addition to working with graphics students from other classes. Jean is a graduate of the Tian San High School, Shanghai, People's Republic of China. She has a baccalaureate degree from the Shanghai Institute of Mechanical Engineering and will earn a Master of Science degree from Eastern Illinois University this spring.

Jean's hobby is Chinese cooking. She would like to be an independent mechanical engineer after leaving graduate school. Jean's mother and an older sister also have graduate degrees from Eastern Illinois University.

Cheryl E. Ono is a graduate assistant in the Energy Laboratory. She supervises students in the Open Laboratory and also assists with laboratory maintenance.

Cheryl is a graduate of Eastern Illinois University with a major in Industrial Technology and an option in Electronics. She graduated from Forest View High School, Des Plaines before enrolling in university studies.

Cheryl is currently in the midst of an internship with the General Electric plant in Mattoon. This involves working directly with production personnel in the plant and also with their supervisors. Cheryl will earn her Master of Science degree in Technology this spring.

Dan Sullivan teaches the mechanical portion of the Energy Technology class in addition to monitoring the Open Laboratory. Dan's home is in Georgia, and he graduated from the St. Thomas Aquinas High School in Augusta. He has an Associate of Applied Science degree from the Spartan School of Aeronautics, Tulsa, and a baccalaureate degree from Southern Illinois University. He will earn a Master of Science in Technology degree this summer.

Dan is fabricating two robotic guidance vehicles for use in the Computer Integrated Manufacturing Laboratory and the Electronics Laboratory. These vehicles are floor track robots and require careful planning.



School of Technology graduate students from left to right: Julie Stanko, Tracy Simpson, Jean Zhang, Cheryl Ono, Danny Carlson, Dan Sullivan, Gary Voltolina, and Harold Wissell.

Danny J. Carlson is the Production Laboratory graduate assistant for this academic year. He monitors the Open Laboratory in addition to some teaching of production classes. Danny is a graduate of Dieterich High School and of Eastern Illinois University's Technology Education program. He plans to enter industry as a researcher or manager after earning a Master of Science degree this summer.

Danny's undergraduate option was manufacturing and he utilizes these skills in woodworking as an avocation. He is studying advanced manufacturing techniques and managerial strategies in graduate school.

Julie K. Stanko teaches part of the Communication Technology class in addition to monitoring the Open Laboratory for the Communication Laboratory. She also assists undergraduate students with their laboratory activities as needed. Julie is a graduate of Ottawa High School and had a baccalaureate degree from Eastern Illinois University with an option in Graphic Design and a minor in Business Administration.

Julie hopes to remain in the teaching of Graphic Design at the university level or to enter the commercial design field as an art director for a graphic design firm. A long range goal is to someday own a graphic design company.

Tracy Jo Simpson is a graduate assistant in the Communication Laboratory this year and assists with monitoring the Open Laboratory. Tracy's home is in Oak Forest and she is a graduate of Oak Forest High School. She graduated from Eastern Illinois University with a Graphic Design major and a minor in Spanish. This background will help Tracy move up in the graphic design world to an art directorship.

In addition to her assistantship, Tracy is currently working in an internship in a nearby printing plant. This includes television production, script writing, desk-top publications, and computerized graphic design.

Harold James Wissell supervises the Open Laboratory in the Production Laboratory this semester. Harold is a graduate of Carlinville High School. His baccalaureate degree from Eastern Illinois University is in Industrial Technology with a minor in Business Administration. Harold's technical concentration is electronics.

Harold will complete requirements for a Master of Science in Technology this summer. He plans to enter the aerospace of space industry after graduation.

Dr. Griffin Retires

Dr. Raymond Griffin, who has been with the school for 30 years, retired at the end of Spring Semester 1987. He will continue working with student teachers on a part time basis.

Dr. Griffin came to Eastern in 1958 as an instructor of Industrial arts at the new laboratory school. Upon the closing of the laboratory school, Dr. Griffin was assigned to teach professional courses and coordinate student teachers for the department. Dr. Griffin is completing three years as program coordinator of Technology Education for the School of Technology. Dr. Griffin has been in education for 36 years--28 years at E.I.U. and 8 years in the Paris, Illinois public schools.

Alumni News

Dr. Charles Nelson Grote, class of 1950, was inaugurated as the president of Morehead State University, Morehead, Kentucky in October, 1987.

Dr. Janet Robb, 1978, North Texas State University was named as a 1988 Outstanding Young Technology Educator by the International Technology Educator Association. Janet is currently the advisor for the Technology Education Colleague Association (TECA).

Mr. Dennis Gallo, 1981, was named Outstanding Technology Teacher in Illinois for 1988 by the International Technology Education Association at the 1988 Inter-

national Conference in Norfolk, VA.

Dr. Andy Horton, 1982, is an assistant professor in the Department of Industrial Studies at St. Cloud State University, St. Cloud, Minnesota.

Dr. Anthony Gilberti, 1983, is an assistant professor in the Department of Industrial Studies at St. Cloud State University, St. Cloud, Minnesota.

We would like to print news about you in our newsletter. Please drop us a postcard telling us where you are and what you are doing.

Graduate Studies

Continued from page 3

Readings and Research in Technology, replaces an existing course in Readings only. Issues and Trends now includes a study of technology in general instead of education only.

The School of Technology now has 11 graduate faculty, all involved in teaching courses and workshops at both sites. One of the new strengths of the graduate program is the offering of special topic workshops off-campus. These workshops meet the needs of both degree option students and are very well attended. The topics include Manufacturing Automation, Time and Motion, Robotics and Micro Interfacing, Japanese Manufacturing Techniques, Desktop Publishing, Production and Quality Improvement, CAD/CAM, Industrial Safety, Machine Tool Technology, Workplace Conflict, and Welding Fabrication.

Students Honored at School Banquet

The Annual School of Technology Spring Banquet was held on Wednesday, April 6 in the Ballroom of the Union. The following students were honored as 1988 scholarship recipients:

- Dawn Kuhl*, School of Technology Alumni Scholarship
- Chris Stanton*, Lucille Klehm Technology Education Award
- Michael K. Ballan*, Walter A. Klehm Industrial Technology Award
- Chris Rademacher*, Charles A. Elliott Technology Education Award
- Dan Brown*, Roy E. Ehrsam Scholarship
- Andy Klose*, Roy E. Ehrsam Scholarship

Summer Class Schedule at EIU

Five and Eight Week

INDUSTRIAL TECHNOLOGY

COURSE DESCRIPTION	SECT.	INSTRUCTOR	MEETING	TIME	BLDG/ROOM	CR
INT 1043 ENGR GRAPHICS	001	WATSON CHARLES	1130-1450	MTWRF	ASB316	03
INT 4275 IND INTERNSHIP	005	HELSEL LARRY	ARR	MTWRF	ASB101	05
	010	HELSEL LARRY	ARR	F	ASB1101	10
INT 4998 MACH. TOOL TEC	021*	WASKOM TOMMY	ARR	F	ASB117	02
FAB TECH	022†	WASKOM TOMMY	ARR	F	ASB117	01
INT 4999 QUAL/PROD IMPR.	031√	COLEMAN WAYNE	ARR	MTWRF	ASB218	02
INT 5203 IND INTERNSHIP	002	HELSEL LARRY	ARR	MTWRF	ASB101	02
	003	HELSEL LARRY	ARR	MTWRF	ASB101	03
	004	HELSEL LARRY	ARR	MTWRF	ASB101	04
	005	HELSEL LARRY	ARR	MTWRF	ASB101	05

All workshops meet 1800-2200 Fri and 0800-1200 and 1300-1730 Sat on the dates indicated.

*June 17-18, 24-25

†July 8-9

√July 15-16, 22-23, 29-30

TECHNOLOGY EDUCATION

COURSE DESCRIPTION	SECT.	INSTRUCTOR	MEETING	TIME	BLDG/ROOM	CR
TED 2242 PR GR TECH ED	001	SONDERMAN ROB.	1030-1300	TR	ASB214	02
TED 2252 INTER GR TECH ED	001	SONDERMAN ROB.	1030-1300	TR	ASB214	02
TED 5070 VIP INTERNSHIP	031*	BOLDREY TOM	ARR	MTWRF	ASB202	03
TED 5950 THESIS	003	HELSEL LARRY	ARR	MTWRF	ASB101	03
	006	HELSEL LARRY	ARR	MTWRF	ASB101	06

* June 18, July 9, Aug. 6, at 0800-1200 and 1300-1700

Interession

TECHNOLOGY EDUCATION

COURSE DESCRIPTION	SECT.	INSTRUCTOR	MEETING	TIME	BLDG/ROOM	CR
TED 4998 ROBOT INTERFACE	056 *	MESSER JOHN M	ARR	F	ASB219	02

*May 20-21, 27-28, June 3-4 at 1800-2200 Fri. and at 0800-1200 and 1300-1730 Sat.

Chanute Air Force Base

TED 5163-115 Contemporary Problems (3CR) M,W June 16, August 6, 203 Jackson Hall
Dr. Strandberg.

INT 4943-115 Manufacturing Management (3CR)

*Friday, May 20, June 3, 10; **Saturday, May 21, June 4, 11 in 212 Jackson Hall.

Faculty Sabbaticals

Dr. Howard Nelms

Dr. Nelms has returned to teach Spring Semester classes after a Fall Semester sabbatical leave during which several hands-on energy-efficient construction projects were completed. One major construction project is currently underway and will extend through this semester and into the summer of 1988.

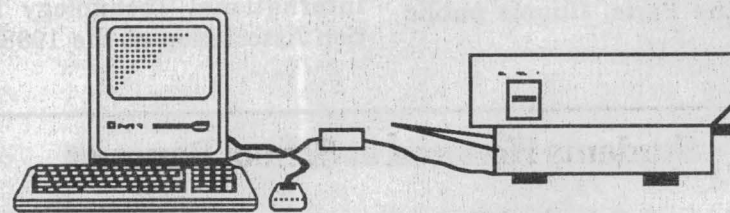
Beginning early in the Fall Semester, Dr. Nelms agreed to assume the position of general contractor to assist in the design and construction of a single family residential structure that was to be built in the state of California approximately fifty miles northwest of Los Angeles.

This experience in another state has provided him with an opportunity to gain new knowledge and practical experiences that a project of this kind offers and he plans to include some of the California building experiences in his construction teaching efforts.

Dr. John M. Messer

Dr. Messer took a sabbatical leave during the 1987-88 academic year, during which time he worked as an electronic training consultant for Cummins Engine Company, Columbus, Indiana. Cummins, the leader in heavy duty diesel engines for truck and heavy equipment vehicles, has recently expanded their business ventures to include electronic components and systems for use by the trucking industry. This new direction was in part dictated by the demands of new EPA standards that set more strict limits on emissions for 'On Highway' vehicles. Since diesel engines are basically mechanical systems, electronics was a new area for the industry.

Dr. Messer's responsibilities included providing electronic training for Cummin's OEM application engineers. Much of this training is now being converted to video presentations that will be used to help meet the increasing needs of industrial personnel to understand electronic concepts and principles.



All the art and the typesetting was created on the Macintosh using ReadySetGo® and MacDraw. The output printer is the Apple LaserWriter, which has a resolution of 300 dots per linear inch.