Welcome to the new IE newsletter, reflecting changes in the department. Since assuming the role as Interim Chair on February 1, 1989, and as the Chairman on May 21, 1989, I have worked carefully and thoroughly with faculty to review the IE programs and develop future plans.

We believe that industrial engineers should play a key role in promoting modern methods of industrial manufacturing and production, yet we have frequently been criticized by our peers as being generalists of no depth. Other than on a few university campuses, industrial engineering has an identity problem when compared with other engineering disciplines (conclusions reached in a special meeting held by Dr. Gerry Nadler, President of IIE, at the Spring 1989 IIE Conference in Toronto). I am glad to report to you some of the recent developments here and our faculty's thoughts about the department's future.

Last Year

In October 1988, the College of Engineering's Academic Council unanimously recommended that the Departments of Industrial Engineering and Mechanical Engineering be merged to form a single academic unit. Two months later, the University Long-Range Strategic Planning Subcommittee, after reviewing the Industrial Engineering Department, concluded that IE was business-oriented and hence recommended that the department be eliminated, absorbed by the College of Business, or significantly refocused.

In March 1989, the IE faculty proposed to refocus its programs. Our proposal received strong endorsements from the Department of Management, Department of Mechanical Engineering, Department of Electrical Engineering, and Computer Engineering, and many individuals in the Department of Chemical Engineering and College of Engineering. Many thanks to these departments and the many friends and alumni who support the department.

In June 1989, Peat Marwick Main and Company, hired by the Iowa Board of Regents to study unnecessary programs, recommended that the Board that the Industrial Engineering Department be eliminated.

Future Programs

According to the report of the Defense Manufacturing Board dated July 1988, "There is a growing perception...that America's industrial base is on a downhill course to second-class status." There is no doubt that engineering educators are responsible for part of this decline.

A significantly refocused plan has been proposed by the IE faculty and recommended by the College of Engineering and the University. The department will streamline its curriculum by offering the B.S., M.S., and Ph.D. degrees in industrial engineering with emphasis on three areas:

1. Manufacturing systems engineering, to pay due attention to computer-integrated manufacturing systems, computer-aided design, networking, and other modern technologies.
2. Applied operations research, to train students in mathematical and statistical fundamentals that would help future industrial engineers to "think" and to "perform" instead of "do". Both deterministic and probabilistic methodology and engineering design concepts such as cost benefit analysis and quality issues among others will be addressed.
3. Human-machine interface, to fill a void in other engineering disciplines and eliminate a bottleneck of many system operations including both hardware and software systems. Emphasis will be on physiological aspects of engineering design.

Our future programs are intended to be technical and engineering oriented with a manufacturing emphasis. To reflect these changes, we have changed our name to "Department of Industrial and Manufacturing Systems Engineering."

The Iowa Board of Regents recently finished reviewing the Peat Marwick Main and Company proposals and Iowa State University's responses regarding the elimination of the Industrial Engineering Department. On October 18, 1989, the regents recommended retaining the department and approved renaming it the Department of Industrial and Manufacturing Systems Engineering to reflect its focus on manufacturing engineering. Programs that duplicate those offered in the business management program should be eliminated. Also, efforts would be stepped up to "provide adequate resources to improve the quality of the existing program."

Again, thanks are due for the strong support of President Gordon Eaton, Provost Milton Glick, Dean David Kao, and many professional friends and alumni.

Teaching and Research

Teaching and research are the two key factors to guarantee quality education, to receive high visibility, and to gain recognition and enhance our reputation. All faculty will participate in teaching and research with perhaps more emphasis on one than the other. New courses such as CIM, A/E/Expert Systems, concurrent engineering, queuing networks, etc. will be developed, and existing courses are being reviewed and revised. Both quality and quantity of faculty teaching and research activities in the three designated areas are to be developed. Graduate programs will be greatly strengthened.

Research Funding and Laboratory Equipment

We have traditionally had low funding and very little equipment. In June 1989 we received commitments from the National Science Foundation, the U.S. Army, and General Motors to equip lab facilities (among our highest priorities). In addition to the faculty's efforts to compete nationally for federal and industrial research grants, we desperately need alumni support if we are to reach our goals. We are also interested in applications-driven research with industry through alumni and the Industrial Advisory Board we plan to establish this year.

Continued on next page
Faculty and Student Recruitment

With recent retirements and the university's commitments to the department, we have successfully recruited two outstanding new faculty this year: Ram Pandit from the University of Illinois at Champagne and Jo Min from the University of California at Berkeley. We expect to provide competitive packages to recruit a few more faculty including women and minorities in the next few years.

Because of changes in demographics, our undergraduate enrollment is likely to drop below university enrollment decreases. We are setting up plans to attract high school graduates, particularly women and minorities. We will be actively recruiting college graduates to enter graduate school. Research grants, scholarships donated, and further strengthening the alumni/alumnae program will enhance our department.

On June 2, 1989, the department held the first alumni homecoming reception. We communicated well with those who attended the reception. Your continuous advice, suggestions, support, and gifts are needed and acknowledged.

Student Placement

The job market, particularly the high-tech market, for IE graduates continues to look good. Just like other engineering graduates, our students have been placed well in the marketplace. But we are careful not to stop reviewing and improving our education program. Instead, continuing to better prepare students for new challenges is always our goal. Furthermore, more knowledge bases are needed for future generations in order to enhance the nation’s productivity and to produce quality professionals.

Alumni Involvement

We are one of the largest producers of industrial engineers in the nation. Many alumni have held executive positions. We want to keep you all informed of our progress; please also keep us informed of your progress.

Labs and New Facilities

New Facilities

Several sizable research grants have been obtained this year by Professors Way Keen, Thomas Barta, and John Jackson. Our aim, of course, is to increase outside funding, and, in turn, the number of research assistants within the program. In so doing, we can continue to attract the quality graduate students. Our reputation is good in the field—we just want to make it better!

Faculty Changes

Three faculty retired in 1989, Dr. Keith McHiebert, Professor Ilora Meier, and Dr. Clifford Smith. Each of them has over 15 years of service to the university and we recognize them for their dedicated service and contributions. Although it was difficult to fill their shoes, we have recruited two new faculty. Ram Pandit from University of Illinois at Champagne and Jo Min from University of California at Berkeley joined us in January 1990. Ram Pandit’s interests are in applied operations research, analysis of manufacturing systems, materials handling, and facility planning. Jo Min’s interests are in economic systems analysis, mathematical programming, and pricing policy. We plan to recruit at least one new faculty member this year.

SCHOLARSHIP RECIPIENTS

J-M Corporation, Shane Strasman—$600
Alcon Foundation, Robert DeRuyse—$600
American Association of Engineering Education, Central Iowa Chapter, Sarah Roening—$250
Arthur Anderson Consulting Co., Margaret Carl—$500
Boursa Inc., Dwayne Litwiller—$1828
Donald Grant Scholarship, Darrell Polk—$300
Marcia Thompsons—$300
IL Stuart Kuyper, Shane Frazer—$600
Hempstead Walkup, Robert Yoeger—$750
Institute of Industrial Engineers, Central Iowa Chapter, Sarah Roening—$250
James McKeen, Deanna Trenor—$500
James River Corporation, Deborah Nett—$500
Mark Helfen—$500
John Deere Foundation, Bradley Thigpen—$2500
Kleinachmidt/Squire, Jeffrey Hardy—$200
Material Handling Education Foundation, Sarah Roening—$750
Maytag Corporation, Wendy Pyles—$500
National Machine Tool Builders, Mike Sage—$1000
Nelson Brothers, Sarah Roening—$1000
Paul Emerson Morgan, Miren Arango—$500
Paul Dyer—$500
Jill Hedson—$500
Natalie Schmid—$500
Marcia McCarthy—$500
Miguel Morales—$500
Richard Covert Scholarship, Bruce Polson—$1000
Walter J. Lyons Memorial, Greg Furman—$250

Please stay in touch!

We want to hear about your career moves and personal news for our alumni news page. We need your help, too, with donations to scholarship funds, lab facilities, student groups. If you’re making a contribution to your alma mater, please consider designating it for the Department of Industrial and Manufacturing Systems Engineering. The form below will make it easy for you.

Name ____________________________
Address ____________________________
City, State, Zip ____________________________

I wish to contribute: ____________________________
I wish to help the department with a contribution: ____________________________