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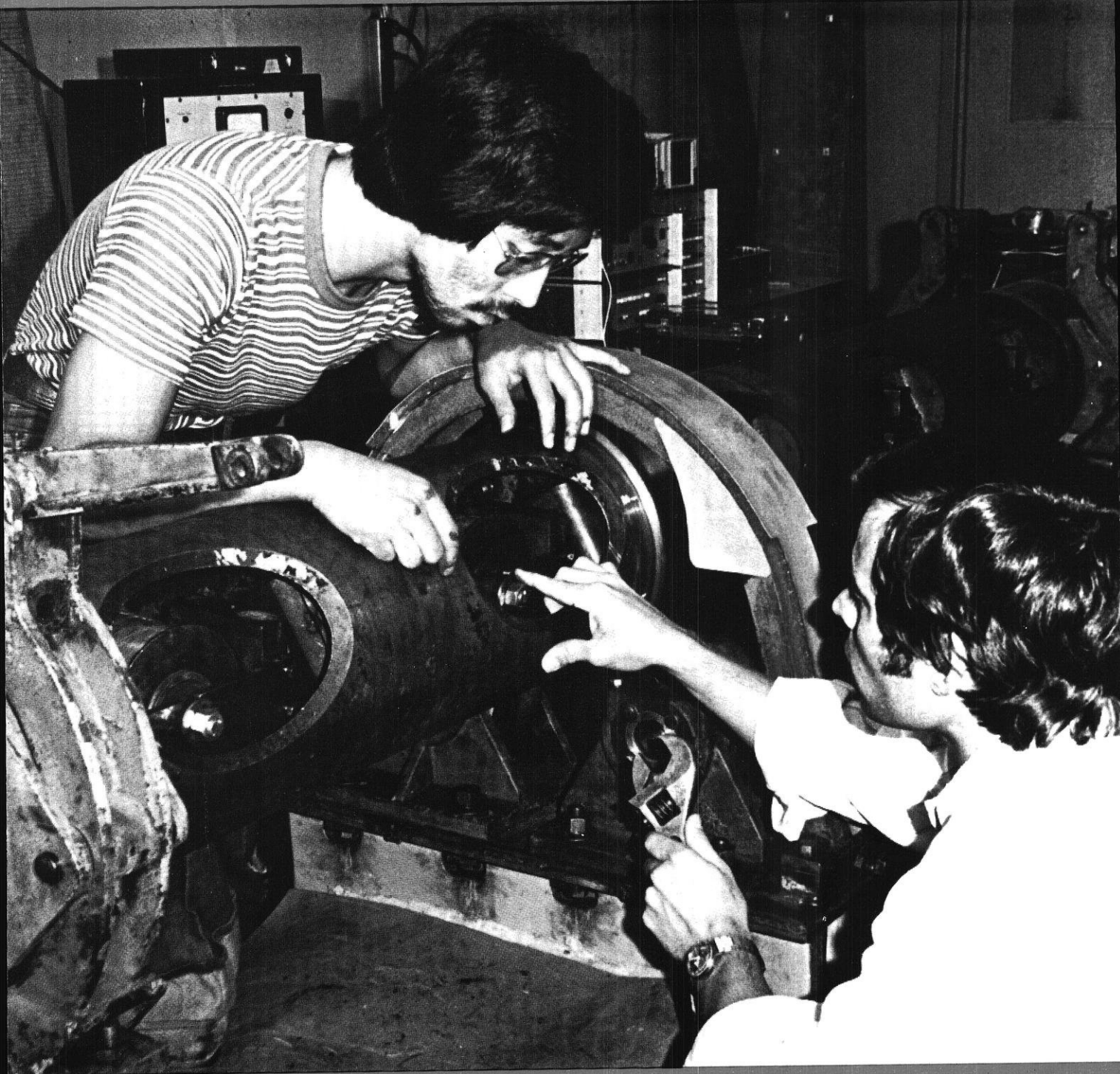
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# wisconsin engineer



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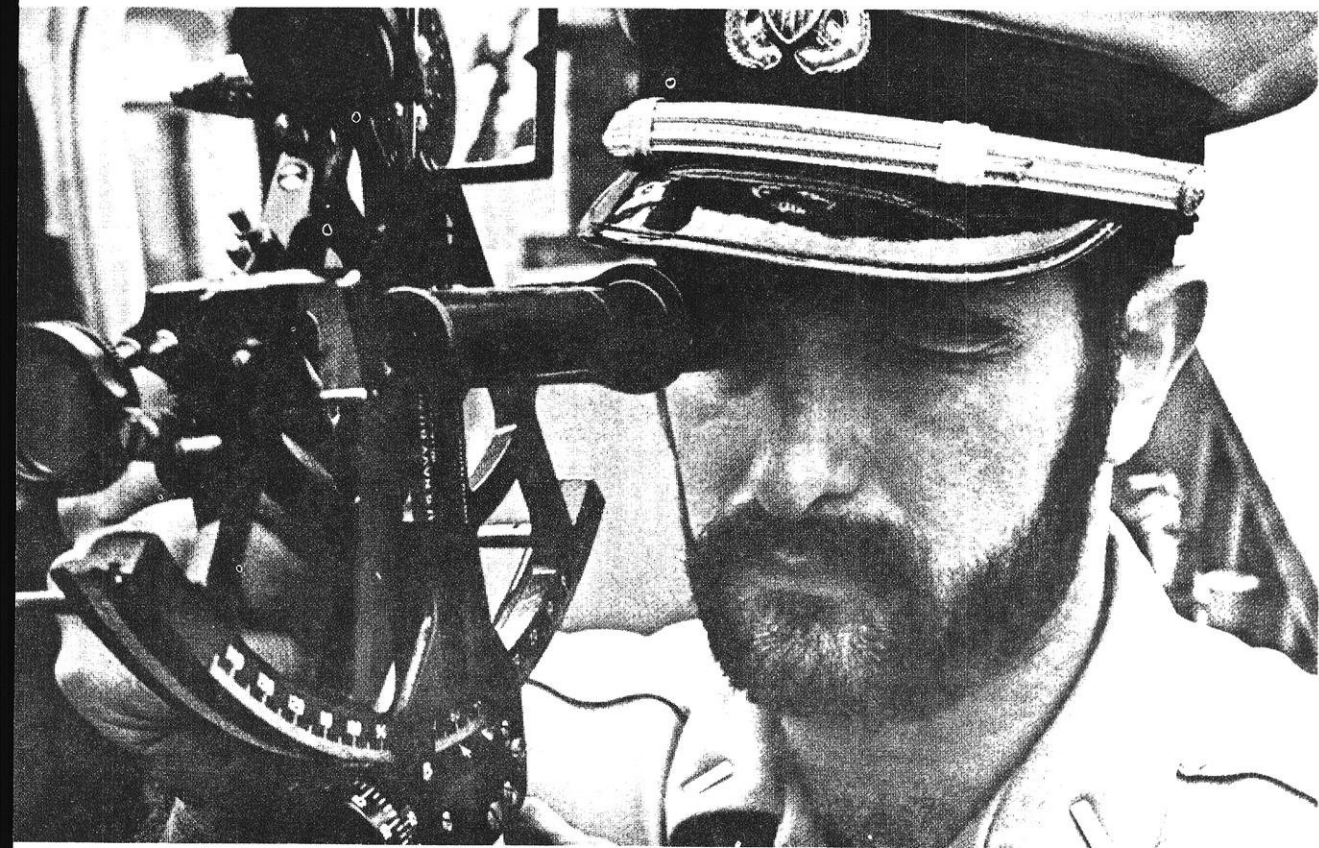
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# Be It Resolved

*Polygon Engineering Council is currently reassessing its role on the engineering campus and reorganizing its internal structure to best fulfill that role. Under Polygon's reorganization plan, a number of committees have been established to examine current and suggested activities and present their recommendations to the council. These committees: Public Relations, Services, Social, Internal Administration, and External Administration, are in session and holding preliminary discussions on relevant topics.*

*As the college expands and student enrollment extends itself, Polygon, as the autonomous student organization of the Engineering college, should also expand its operation. Increased membership has been cited as a possible boon for Polygon, enabling new and varied services to be offered the students. Currently, two members of each professional society elect an administration and serve as directors of the council. One of the first and most significant changes, I believe, is to open Polygon to representation from all areas of the Engineering College. While almost all areas of engineering are covered within the societies represented, the societies are student sections of professional organizations and not necessarily sensitive to university issues.*

*Polygon would best represent the engineering college by amending its membership to include all currently enrolled engineering students and establishing its Board of Directors accordingly. Polygon should extend directorships to each department in the college and the engineering student at large. By accepting or electing direc-*

*tors from each department, Polygon would ensure an available channel for any engineering student petitioning the Council. In addition to the Departmental Directors, I would urge Polygon to accept as voting members on standing or ad hoc committees any interested member who can meet the attendance requirements, provided committee size isn't a problem. Council meeting times and locations should be posted in advance and accessible to the student membership.*

*If "Polygon Board is a central committee which represents engineering students in their relations with the Faculty and the College of Engineering," actions similar to these recommendations should be taken. This hinges significantly on the response from the prospective membership in the spring semester. Student participation has been invited in the committee meetings. Without a positive image being presented by interested persons at these meetings, these proposals will not be seriously addressed. Please invest an hour or two in the February Polygon meetings. The potential for Polygon to serve the engineering student is limited only by the ambition of the council members. Providing the opportunity for students to actively become involved in Polygon's affairs can only serve Polygon's purposes. So go for it, folks.*

*Dik Eierman*

Dik Eierman  
WSA Senator  
College of Engineering

# wisconsin engineer

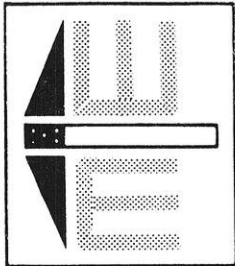
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Dik Eierman

*Business Manager*



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# Campus News

## Marshall Concerned About Enrollment

MADISON (UW NEWS)—W. Robert Marshall, dean of the College of Engineering at University of Wisconsin-Madison, recently told regents that a climbing enrollment in engineering classes may force his college to curtail the size of its student body next year.

Without budget increases, he said, the engineering college is concerned it can't serve its present 3,300 undergraduates without cutting educational quality. Marshall said later, after speaking to the UW System Board of Regents Education Committee, that class sizes were already too large and that the most serious problems were in staffing and laboratory facilities.

Barely a half-dozen years ago, the dean said, undergraduate enrollment stood at about 1,800 students. It is now 3,300—about 10 percent more than the college estimated several years ago that it could accommodate without sacrificing standards.



Dean W. Robert Marshall

The college is also seeing an unprecedented number of transfer students at the junior and senior levels. "This has taxed our teaching loads and our budget," he told regents.

Marshall also said, in a report on the college, that women's enrollment in engineering has jumped from 1.4 to 10 percent

in just five years while minority enrollment went from zero to 3 percent.

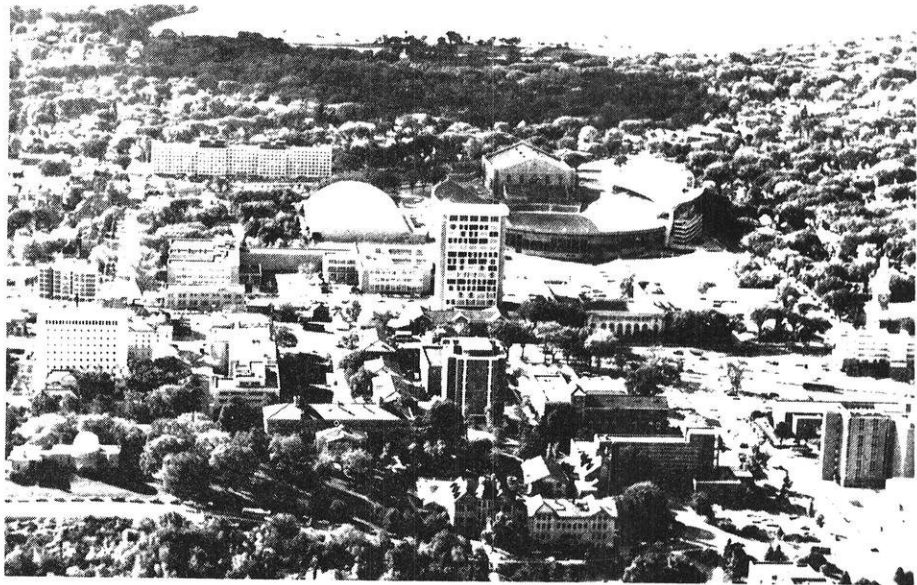
## UW Chem E Number One

Chemical Engineering magazine reports that the University of Wisconsin Chemical Engineering Department, along with that of Princeton, are the best in the nation, according to a recently released study.

*The Gourman Report: A Rating of American and International Universities* (published by National Education Standards, Los Angeles, CA) rated Wisconsin and Princeton Chem E departments highest with scores of 4.82 out of a possible 5.00

The score is a weighted average of eight factors:

- 1) Faculty plus standards and quality of instruction—40%.
- 2) Curriculum—30%
- 3) Library—10%
- 4) Physical facilities—10%
- 5) Attitudes and policy of administration, including



- on research programs—5%
- 6) Student's scholastic work—3%
- 7) Records of graduates—1%
- 8) Nondepartmental factors—1%

The number one ranking is a slight improvement for Wisconsin, which was ranked second behind Princeton by the study ten years ago.

## Wendt Retires From Planning Post

MADISON (UW NEWS)—Kurt Wendt, 72, retired January 12 as chairman of the key Campus Planning Committee at the University of Wisconsin-Madison, a committee he has headed for 20 years.

His retirement was announced by Chancellor Irving Shain, who said Wendt "has been Mr. Campus Planning for decades, literally decades." It was Wendt's leadership, the chancellor told a meeting of the Campus Planning Com-

mittee, that "made it possible for us to respond in an intelligent manner to the growth of the campus over the past two decades or so."

Shain named Assistant Chancellor Joel L. Skornicka as the new Campus Planning Committee chairman.

Wendt said he would also be phasing out his memberships on other committees tied to his role in campus planning. He will, however, continue his 51-year University career by remaining as a campus planning consultant. "That means I don't have to get here on time in the morning," quipped Wendt.

A plaque presented by Shain lauded Wendt's "dedicated leadership" and said "he exhibited qualities of objectivity, fortitude, patience, diplomacy, and perseverance in furthering the short and long term goals of our campus development."

Wendt had supposedly retired from the University in 1971 after 44 years on the engineering faculty and an 18-year tenure as dean of the engineering college. He continued his chairmanship of the important Campus Planning Committee, however, on the

request of then-chancellor Edwin Young.

Since 1953, during nearly a quarter-century on the planning committee, Wendt has shepherded close to 100 UW-Madison buildings to completion, making up perhaps three-fourths of the present campus. He was a key committee member during the boom years of 1960s, when legend had it that the University was launching a million dollars in construction each week.

Along the way, Wendt gained a reputation as a get-it-done diplomat; during one turbulent time in the 1960s he was one of the few people both the University and City of Madison administrations would trust as a go-between.

Getting buildings designed, funded and erected was only a part-time job for Wendt, however. Besides his engineering teaching and administering, he has been an active researcher and a busy community servant.

His research projects have ranged from long-term tests on the durability of concrete to building military airplanes out of wood. He headed the Materials Laboratory here from 1935-46





the University YMCA and chairman of the Official Board of First University Methodist Church.

A Milwaukee native, Wendt became an instructor in the engineering mechanics department at UW-Madison right after he received his civil engineering degree from UW in 1927. He was made a full professor in 1946 and named dean of the College of Engineering in 1953 even though he didn't have a Ph.D. In fact, he wasn't entitled to be called "doctor" until 1964 when he was granted an honorary Doctor of Science degree by the West Virginia Institute of Technology.

While dean of the College of Engineering, he saw enrollment double and the number of graduated students triple. Under Wendt's leadership, the college added new buildings to handle the students and degree programs in engineering mechanics, nuclear engineering and industrial engineering. A nuclear reactor was installed and biomedical engineering programs were begun. Education-research assistance projects were opened in India, Mexico and Singapore.

Married, Wendt and his wife, Adelaide, have three sons—all UW graduates.

and the Engineering Experiment Station from 1953-71. He has been a consultant to the U. S. Forest Products Laboratory in Madison and the National Science Foundation.

Wendt's academic and research awards, along with a list of his memberships in scholarly societies, fill several pages. A member of the American Academy of Sciences, he was named Wisconsin's "Engineer of the Year" in 1963 by the Engineers Society of Milwaukee. He was cited by the Wisconsin Society for Professional Engineers in 1959 for his outstanding contributions to the profession and in 1960 received the Bliss Medal from the Society of American Military Engineers for his role in fostering military engineering education.

Other professional and educational honors have come from the Consulting Engineers Council, the Highway Research Board of the National Academy of Sciences and the American Academy of Achievement. At UW-Madison the new engineering library was named in his honor in 1976.

On campus he has been a leader in city-university relations, president of the University Club

and a member of the Fringe Benefits Commission of the UW System.

His community activities have included the presidency in 1969 of the Madison United Community Chest. He has also held memberships on the Kellett Commission on Education, the governor's Commission on Traffic Safety and the Madison Mayor's Advisory Committee. He has been president and a trustee of

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# "In my first month at DuPont, I was assigned a \$50,000 project."

—John B. Taylor BS, Mechanical Engineering



"I was recruited from the University of South Carolina in 1974 and hired as a design engineer at the Textile Fibers Department's May Plant in Camden, S.C. In my first month I was assigned a \$50,000 project. I was proud to be trusted with such a task right out of school.

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"JB" has worked also as a power results engineer and power maintenance relief supervisor at Camden. He is now on his fourth assignment—a group supervisor at Du Pont's Pigments Plant in Wilmington, Delaware.

"JB's" story is typical of many Chemical, Mechanical and Electrical Engineers who've chosen careers at Du Pont.

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# Noise Control Improves Working Conditions

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*Rex Buchanan*

As old age approaches, hearing deteriorates. It's a fact of life.

But even though hearing may fail as people get older, aging bodies may not be entirely to blame for hearing loss.

Exposure to noise—especially prolonged exposure to very loud noise—also plays a role in causing hearing to fade. And the din can be especially deafening in some factories.

In the last several years, under increasing government pressure, industry has become more sensitive to noise and its consequences.

"Controlling noise improves working conditions," says University of Wisconsin-Madison mechanical engineer John G. Bollinger. "Quieter working places are not only more pleasant, they are safer."

Bollinger and other engineers at the University of Wisconsin-Madison are taking an in-depth look at noise sources and how to control them. Projects range from hushing a motorcycle to exploring the effects of snowmobile traffic noise on wildlife.

Much of the research, however, is directed toward helping industry quiet its machinery.

"When attacking noise problems, we first try to understand the origins of the sounds," explains Bollinger. "Then we establish different alternatives to control them."

That approach proved successful in quieting one common Wisconsin enterprise: grain drying. A grain elevator operator, whose drying facility is located in a small town, came to Bollinger's noise control class for help. When the dryer was being used, it created sufficient racket to draw complaints from nearby residents.

Bollinger's class ferreted out the noise culprits. They found, for instance, that hard kernels of corn struck steel plates, setting up a high frequency roar. And the natural gas burner and fan, which heated and moved air to dry the grain, added to the cacophony.

"We suggested things such as shielding the dryer, and treating pipes so they couldn't rattle," said Bollinger. "Finally, we made the dryer 20 decibels quieter by redesigning the aerodynamic flow paths."

Noise problems are not always as easily solved. Graduate stu-

dent Jim Yerges is attacking another industrial noisemaker—wire stranding machines.

Wire products, such as elevator cables or guy wires that help support telephone poles, are manufactured by wrapping together strands of wire. The process goes on inside a hollow, rotating metal tube; within the tube, nonrotating cradles hold bobbins of wire. Strands of wire come out of the end of the tube, and the tube's rotation twists the strands into wire rope.

"When we began research on our wire stranding machine, we measured its noise at close to 100 decibels," notes Yerges. "It sounded like a jet plane taking off."

Yerges disassembled parts of the machine and made modifications. Polyurethane-covered rollers, to support the tube, were made. Cradle bearings and bobbin shafts were fitted with rubber-like elastomer bushings, eliminating metal-on-metal contact.

The quieted machine is now close to meeting the noise standard established by the U. S. Occupational Safety and Health Administration (OSHA).

In another project, Bollinger and Marvin F. DeVries study noise created during manufacture of aluminum extrusions—long metal pieces that are cut into sections to make such items as metal storm doors and windows.

A circular sawblade cuts the extrusions, and makes quite a clamor while doing so.

"The extrusions vibrate while being cut," says DeVries. "And the machines shake when they cut the extrusions." In addition, the sawblade—revolving 1800 times a minute—whistles like a siren.

"But it is possible to make changes—such as designing quieter blades—that can be used in existing machines," says DeVries. "We are finding out what those changes will cost per decibel of noise reduction."

The aluminum extrusion research is being funded by the Alcoa Foundation and the Oliver Machinery Company.

Increased funding for noise research makes it obvious that industry is concerned about noise levels.

"During the last five years, noise control has received more attention," notes Bollinger. "Now companies that develop factory equipment are making efforts to come up with products that already meet OSHA standards."

But improvements do not come without strings attached.

"Efforts to decrease noise have cost money," said Bollinger. "That has led to inflation. On pieces of equipment where noise abatement is reasonable, the cost of retrofitting machinery is often 25 percent of the machine's original cost.

"And the faster we push noise abatement, the more it will cost."

In other words, quieter working places cost money. But noise control research is paying dividends, not the least of which is preserving workers' hearing for later in life, after they've left the factory."



**Graduate students Ray Chan (left) and Jim Yerges adjust a microphone that picks up noise produced by the wire stranding machine.**

By listening to the hums and whines of products rolling off the assembly line, mechanical engineers at the University of Wisconsin-Madison hope to tell whether the product is up to snuff.

Graduate student William H. Dornfeld uses a process called signature analysis to find defects in appliance motors and pumps. Just as a person is identified by his handwriting, so a properly operating refrigerator is identified by its hum.

"As the machines come down the assembly line, we focus the sound of the operating parts into a microphone," explains Dorn-

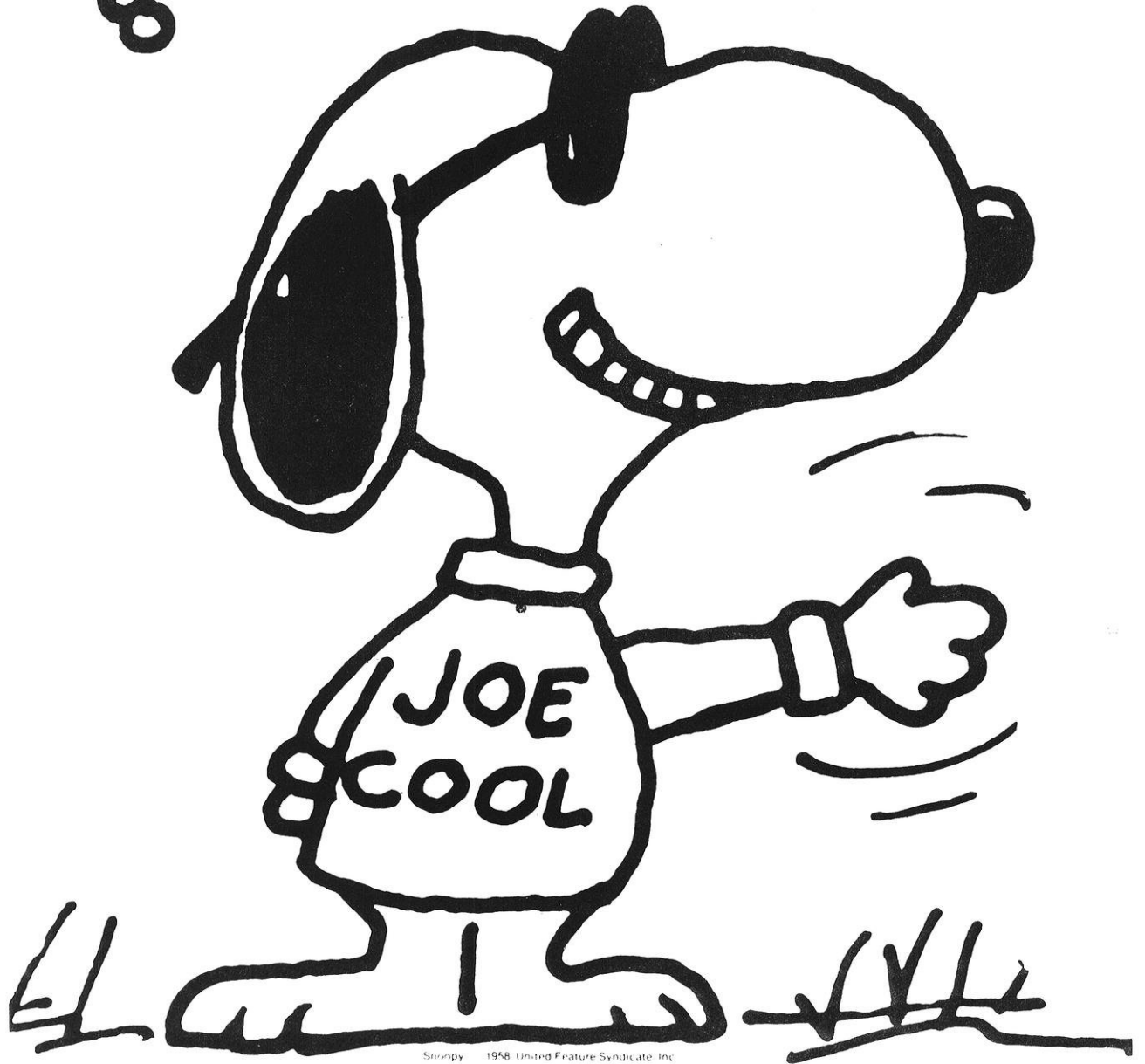
feld. "We then dissect the character of the sound into its frequency components."

From those components, Dornfeld can determine whether the various parts are working the way they should.

"Using this method, the manufacturer can test all the refrigerators—not just a certain statistical percentage of them," notes Dornfeld. "Also, the appliances won't have to be dismantled for inspection."

Dornfeld adds that if the method proves successful in inspection of appliances, it may be widely applied in inspection of other products.

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# Upcoming

# Interviews



## MONDAY, FEBRUARY 6

DuPont Co. (1 of 5)  
Eastman Kodak (1 of 2)  
Marathon Electric  
Oscar Mayer Co. (1 of 4)  
Maytag Co.  
Presto Products  
Joseph T. Ryerson  
Square D Co. (1 of 2)  
UOP – Process Div.  
Warner Electric Brake  
Whirlpool Corp. (1 of 2)

## WEDNESDAY, FEBRUARY 8

Dow Chemical (2 of 2)  
DuPont (3 of 5)  
General Electric (1 of 2)  
Indiana Dept. Nat. Resources  
Interstate Power  
Standard Oil of California  
(1 of 3)

## TUESDAY, FEBRUARY 7

American Electric Power  
Celanese Corp. (2 of 2)  
Chrysler Corp.  
Dow Chemical (1 of 2)  
DuPont (2 of 5)  
General Foods  
Institute of Paper Chemistry  
PPG Industries (1 of 3)  
Square D Co. (2 of 2)  
Whirlpool (2 of 2) if needed  
Wisconsin Power & Light Co.  
(1 of 2)  
National Security Agency  
(2 of 2)

## THURSDAY, FEBRUARY 9

Container Corp. of America  
(2 of 3)  
DuPont (4 of 5)  
General Electric (2 of 2)  
Goodyear Tire & Rubber  
Modine Mfg.  
National Steel  
Standard Oil of California  
(2 of 3)

**FRIDAY, FEBRUARY 10**

C. A. I. — Div. Bourns  
 Container Corp. of America  
 (3 of 3)  
 Cummins Engine  
 DuPont (5 of 5)  
 Olin Corp.  
 Owens Illinois  
 Prime Computer  
 Standard Oil of California  
 (3 of 3)  
 E. R. D. A. (Now Dept. of  
 Energy (2 of 2)

**MONDAY, FEBRUARY 13**

Babcock & Wilcox  
 Corning Glass (1 of 2)  
 Detroit Edison Co.  
 Hercules Incorp.  
 Hewlett Packard (1 of 2)  
 Ingalls Shipbuilding  
 Uarco Inc. (1 of 2)  
 Vilter Mfg.

**TUESDAY, FEBRUARY 14**

Applied Physics Labs (1 of 3)  
 Corning Glass (2 of 2)  
 Eaton Corp.  
 Harris Broadcast Products Div.  
 Hewlett Packard (2 of 2)  
 UCC — All Divisions (1 of 2)

**WEDNESDAY, FEBRUARY 15**

Applied Physics Lab (2 of 3)  
 Bechtel  
 Beloit Corp.  
 Hewlett Packard (Co-op Program)  
 Mirro Aluminum  
 Shure Brothers  
 UCC — All Divisions (2 of 2)  
 Union Oil of California  
 U. S. Navy — Capital Area  
 Personnel

**THURSDAY, FEBRUARY 16**

Atlantic Richfield  
 (2-3 schedules)  
 Clark Dietz & Associates  
 (1 of 2)  
 Ethyl Corp. (1 of 2)  
 Honeywell Inc. (1 of 2)  
 Motorola Inc.  
 Taxaco Inc. (1 of 2)  
 Torrington  
 Underwriters Labs

**FRIDAY, FEBRUARY 17**

Brunswick Corp. (2 of 2)  
 Burroughs Corp.  
 Clark Dietz & Associates (2 of 2)  
 Ethyl Corp. (2 of 2)  
 FMC — Packaging Machinery Div.  
 Falk Corp.  
 Honeywell Inc. (2 of 2)  
 Texaco Inc. (2 of 2)  
 Wabco

**MONDAY, FEBRUARY 20**

American Can Co. (1 of 2)  
 Amoco Chemicals  
 Amoco Oil — R. T. & E.  
 Amoco Research  
 Baxter/Travel Labs  
 (Deerfield, IL)  
 Consumers Power  
 Kimberly Clark  
 Wisconsin Electric Power Co.  
 (1 of 2)  
 Wisconsin Public Service Corp.  
 (1 of 2)

**TUESDAY, FEBRUARY 21**

American Can Co. (2 of 2)  
 Anheuser Busch  
 Arthur Andersen & Co.  
 Bell System (1 of 3)  
 Exxon Corp. (1 of 4)  
 Kelly Springfield Tire Co.  
 Nalco Chemicals (1 of 2)  
 P & G — Engr. Div.  
 P & G — Plant Mgmt. (1 of 2)  
 P & G — Prod Dev. & R & D  
 (1 of 2)  
 Wisconsin Public Service  
 (2 of 2)

**WEDNESDAY, FEBRUARY 22**

American Appraisal (1 of 2)  
 Exxon Corp. (2 of 4)  
 Fisher Controls  
 General Dynamics (All Divisions)  
 (1 of 2)  
 General Dynamics  
 (Material Service)  
 P & G — Plant Mgmt. (2 of 2)  
 P & G — Prod Dev. & R & D  
 (2 of 2)  
 Rexnord

**THURSDAY, FEBRUARY 23**

Chicago Bridge & Iron  
 Exxon Corp. (3 of 4)  
 Ford Motor (1 of 2)  
 General Dynamics (2 of 2)  
 Globe Union Inc.  
 McDonnell Aircraft (1 of 2)  
 Sargent & Lundy  
 Westvaco Research Labs

**FRIDAY, FEBRUARY 24**

Allen Bradley Co.  
 City of Chicago — Dept. of  
 Public Works  
 Exxon Corp. (4 of 4)  
 Ford Motor (2 of 2)  
 Inland Steel  
 Ladish Co.  
 McDonnell Douglas (2 of 2)  
 Nekoosa Papers  
 Rockford Products  
 Weyerhaeuser

**MONDAY, FEBRUARY 27**

Johnson Controls  
 McQuay Perfex Co.  
 Rockwell International (1 of 2)  
 (Aerospace & Electronics Divs.)  
 A. O. Smith Corp.  
 Texas Instruments (1 of 2)  
 1) Austin  
 2) Equipment  
 3) Information Systems  
 4) Semi-Conductor  
 5) Sherman  
 Trane Co. (1 of 5)

**TUESDAY, FEBRUARY 28**

Alcoa (1 of 2)  
 Conoco  
 Consol. Coal  
 Ipsen  
 Motorola Gov't. Electronics  
 Rockwell International (2 of 2)  
 Texas Instruments (2 of 2)  
 Trane Co. (2 of 2)

**WEDNESDAY, MARCH 1**

Alcoa (2 of 2)  
 FMC — Northern Ordnance  
 I. B. M. Corp. (2 of 2)  
 M. I. T. — Lincoln Labs  
 Sperry Univac (1 of 2)  
 Trane Co. (3 of 5)

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**THURSDAY, MARCH 2**

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 Lawrence Livermore Labs  
 McGraw Edison-Power Systems Div  
 Northern States Power (1 of 2)  
 Occidental Research  
 Parker Pen Co.  
 Sperry Univac Defense (2 of 2)  
 Trane Co. (4 of 5)  
 Wisconsin State Government  
 U. S. Army Engrs.  
 Corp. of Engrs.

**FRIDAY, MARCH 3**

Carrier Corp.  
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 Harris Corp., Computer Systems  
 Div. (2 of 2)  
 International Paper  
 Medtronic Inc.  
 Northern States Power (2 of 2)  
 Outboard Marine  
 Radian Corp.  
 Trane Co. (5 of 5)  
 Walker Mfg. Co.  
 Western Gear Co.  
 Western Publishing

**MONDAY, MARCH 6**

The Boeing Co. (1 of 2)  
 Cutler Hammer  
 Data General (1 of 2)  
 Gould Inc.  
 I. T. T. — Telecommunications  
 Intel Corp. (1 of 2)  
 Johnson's Wax  
 Mead Corp.  
 Snap on Tools  
 U. S. Navy (1 of 2)

**TUESDAY, MARCH 7**

Boeing Co. (2 of 2)  
 Elco Industries  
 B. F. Goodrich Co.  
 Illinois Central Gulf R. R.  
 Intel Corp. (2 of 2)  
 Leeds & Northrup  
 U. S. Steel Corp.  
 Xerox Corp.  
 U. S. Navy (2 of 2)

**WEDNESDAY, MARCH 8**

Aqua Chem  
 Burlington Northern (2 of 2)  
 Caterpillar  
 Dow Corning (1 of 2)  
 General Tire & Rubber  
 Grede Foundries  
 Harnischfeger (Iowa)  
 E. F. Johnson  
 Moore Business Forms (2 of 2)  
 Quaker Oats  
 Schreiber Cheese  
 Stepan Chemicals

**THURSDAY, MARCH 9**

Bemis Co.  
 Curwood  
 Dow Corning (2 of 2)  
 Fermi National Labs  
 Inryco  
 Miller Brewing  
 P & G International Div.  
 Ralston Purina (Iowa)  
 Ralston Purina (Missouri)  
 (2 of 2)  
 Roper Corp.  
 Wright Patterson A. F. B.

**FRIDAY, MARCH 10**

Argonne National Labs  
 Mostek  
 Parker Hannifin

**TUESDAY, MARCH 14**

Newport News Shipbuilding

This schedule is subject to change. Check Placement Office bulletin boards regularly for additions and deletions to interview schedules. During the interviewing season notices of interviews are posted daily *one week and two days in advance* of an employer's visit. Students must sign by *4:30 one full day before the schedules date*.

The dates listed below are the dates scheduled in Engineering only. (1 of 2 days) means that a company is on campus two days, but probably in Engineering only the first day unless it is followed by (2 of 2 days) which means that there is a schedule in Engineering both days. If it is only (2 of 2 days) it is in Engineering the 2nd day of 2 days but somewhere else on campus the first day. This may also apply to 3, 4, or 5 days but in only a few cases.



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excellence and advanced design techniques to fulfill its requirements. For the imaginative and energetic engineer ours is a viable atmosphere in which to work.

We have a continuous need for graduates with bachelor and advanced degrees in each of the mechanical, electrical, structural and nuclear disciplines.

If an engineering career is your plan, we would like to talk with you. Please make an appointment through your placement office to interview with us.

**Our company representative will be on the Wisconsin campus, February 23 and March 15, 1978**

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# IT PAYS TO BE IN DEMAND.

Air Force ROTC has scholarships, allowances and jobs for selected science and engineering majors.

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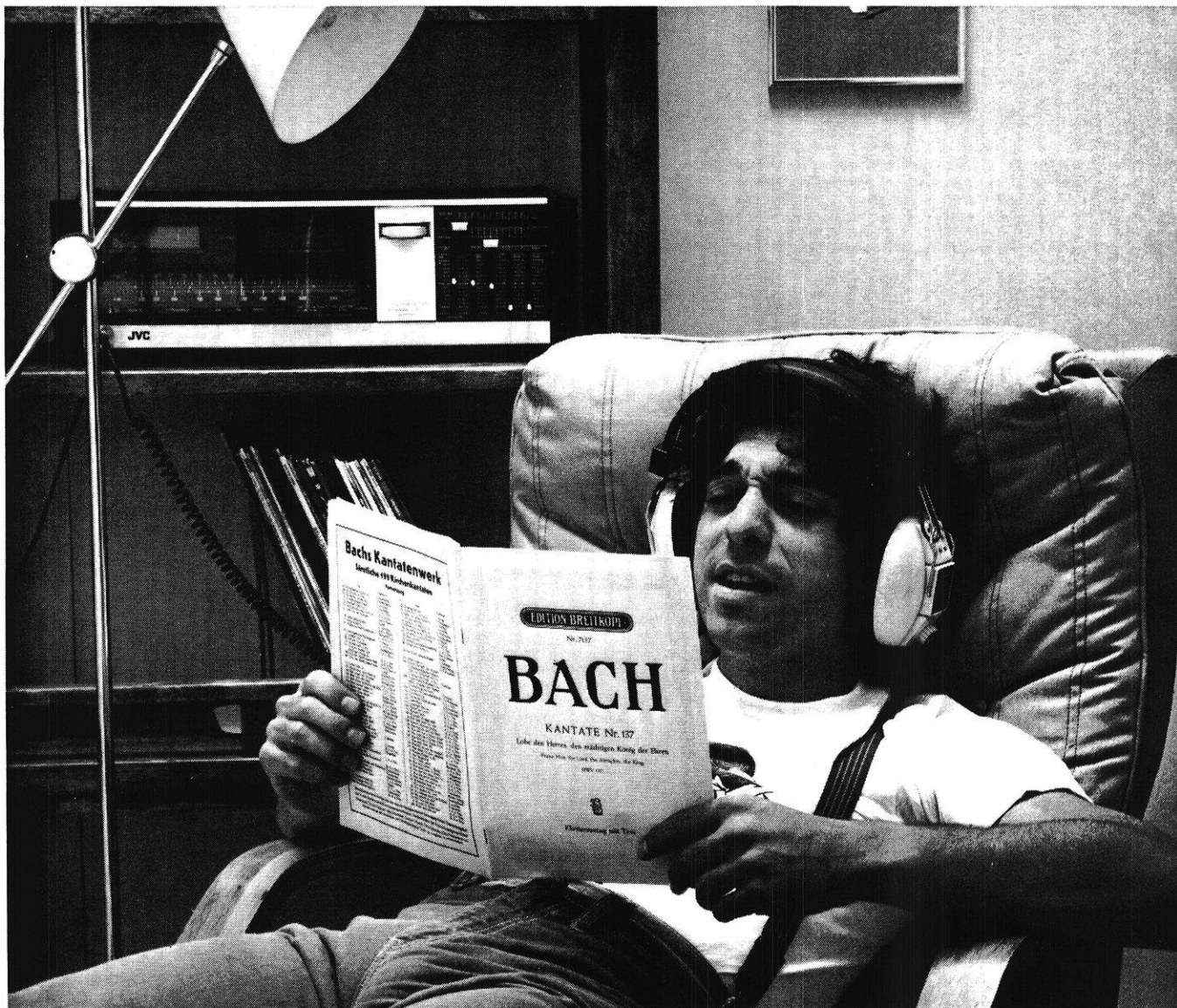
Air Force ROTC offers 4-year, 3-year and 2-year scholarships with \$100 monthly tax-free allowance. AFROTC also offers the \$100 tax-free monthly allowance during the last two years to non-scholarship students.

Upon graduation you'll receive a commission in the U.S. Air Force and compete for challenging jobs. There'll be numerous opportunities for advanced education in your field, plus you'll have financial security and start your way up the promotion ladder where your ability and ambition are the only limits.

It pays to be in demand, and if you're the type we're looking for, it pays to get the details. No obligations, naturally.



**Air Force ROTC - Gateway to a Great Way of Life**



## Enjoy college

Education not only makes life more interesting but eventually brings more influence in society than can be expected by those who have never bothered to read, study, listen, and reflect on the pleasure and pain of it all. That includes influence as articulate citizens, customers, and investors.

Nevertheless, the truth in this may not be apparent right out of college when a desire for steady income leads some B.A.'s to come to us with a major in, say, political science or Romance languages, seeking a start toward an executive career. We listen and then ask, "Are you a born salesperson and how can you prove it?"

In a way, that question reflects our own limitations. For a person well educated in something other than technical fields, it is usually only in sales that we can match qualifications to openings.

For you, who may have lost out on some of the pure pleasure and sheer fun of college because of the kind of

technical courses you've had to grind away at, the choice can be wider. Sales is just one possibility. You can also consider research, development, design, manufacturing, and various combinations of those. Decision-makers throughout our organization, in work often far removed from the subject matter of a technical curriculum, first attracted interest by their success in coping with technical problems. Then, having demonstrated an ability to lead, they exercised their option to move on to broader responsibilities. That sort of choice, for the outset of a career and later, is earned in courses where quantitative thinking rather than personal opinion is demanded.

This includes choice from among other technologically oriented organizations just as good as we are for an interesting life. If it's us you want to challenge, so signify to Business and Technical Personnel, Kodak, Rochester, N.Y. 14650.



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We're looking for people who are looking for a real job. One that offers challenging work. Responsible work.

That's what you can expect at General Electric.

At GE, you'll be handed important assignments right from the start. You can do as much of the job as you're capable of doing. If you need help, it's there. If not, nobody butts in.

Here's the kind of thing we're talking about; some recent examples of jobs handled by new GE engineers:

1. *Charles P.* Aerospace systems manufacturing. Develop and document a direct numerical control system.
2. *Steve O.* Design engineering. Design test equipment for attitude control system of new communications satellite.
3. *Norma L.* Steam-turbine manufacturing. Investigate, analyze and obtain funds for solution of shop problems.
4. *Stephanie B.* Medical systems service engineering. Installation and test of new hospital radiographic and fluoroscopic x-ray system.
5. *Mel D.* Field engineering. Appraisal load testing of low and medium-voltage switchgear and power transformers for utility and industrial applications.

There's a good reason GE hands people like that — like you — real work assignments. It's the best way to develop the skills you will need throughout your career. You develop initiative and creativity. And responsibility. And GE also knows there's little to match the glow you feel when you make an important contribution.

You can make your contribution in just about any field of engineering at GE. We're that diversified in disciplines.



If you like the kind of challenge and responsibility that GE offers, we'd like to hear from you. Send for our free careers booklet. Just write:  
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