

# the INTERFACE

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SPRING 1985

A newsletter for the engineering programs at UMD

## FROM THE DEAN

Not all of you who were interested in learning more about manufacturing engineering, mechanical engineering, and industrial engineering were able to attend the meeting on Thursday 4 April 1985. Here is a general synopsis of what happened. This was the first in a series of informational meetings that will continue in early fall 1985.

Topics for the first session included descriptions of industrial engineering, manufacturing engineering, mechanical engineering, and engineering technology.

Dr. Fred Robinson, an industrial engineer, told of the opportunities as an engineer and also noted the opportunities for the engineering technologist. Dr. Robinson explained that basically the engineer designs and the technologist completes that design with the manufacturing phase. He began as a technologist and now is an engineer. He is available and willing to talk to, or to meet with, any students interested in industrial, manufacturing, or mechanical engineering. Dr. Robinson's office is located in 254 MWAH, telephone (218) 726-6109.

Professor Lewis Oakland, director of pre-engineering, discussed the engineering programs and what is necessary for admission to the engineering program. Professor Oakland invited students to his office for assistance in course planning, career counseling, and advisement.

Dr. Bilin Tsai, associate dean, College of Science and Engineering, spoke on admissions criteria.

Next fall our meetings will focus on (1) computer, electronic, and electrical engineering and (2) materials processing, chemical, and mineral engineering.

George (Rip) Rapp, Jr.

### REGISTRATION - FALL QUARTER

**6 MAY** - Class schedules available (including instructions for mail registration).

**1 JULY** - Registration status notice giving the date and time for registration will be mailed to currently enrolled students.

**1 AUGUST** - Last day to return class reservation form if you wish to register by mail.

Director of Pre-Engineering Lewis Oakland will be available during the summer for students who need advisement. For an appointment call the director's office (218) 726-7210. Beginning fall quarter 1985 Professor Oakland will have office space and office hours in the CSE Student Affairs office, MG 102, (218) 726-7585.

TIMETABLE:

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## DEATH, TAXES, AND UPPER DIVISION PAPERS ■ ■ BE SURE TO FILE

All UMD students are required to file upper division papers when they complete 105 credits. Students who do not file upper division papers in the required quarter will not be allowed to register for the following quarter. All present computer engineering juniors must file this quarter or they will not be allowed to register for fall quarter. See Director of Pre-Engineering Lewis Oakland for help in filling out these forms, which can be picked up in MG 102.

## IEEE STUDENT CHAPTER - JOIN NOW!

The recruiting committee now has sufficient applications to start a student chapter of the Institute of Electrical and Electronic Engineers. All computer engineering and electrical engineering students can join now and pay only for a half year's membership (\$8.50). Contact a committee member - Al Friebe, Dan Despen, or Steve Benasi - at 257 MWAH or call the computer engineering office (6147).

## THIRD ANNUAL HONORS DAY

Tuesday 30 April in Kirby Student Center, 600 students and parents attended a dinner and program to honor outstanding science students from Northeastern Minnesota and Northwestern Wisconsin high schools. Counselors and science teachers at each high school selected two students from the top 10 percent in each school; 215 students were honored. The program is jointly sponsored by the UMD College of Science and Engineering and the Institute of Technology on the Minneapolis campus. The evening included addresses by George Rapp, dean of the College of Science and Engineering, and Russell Hobbie, associate dean of the Institute of Technology.

## EQUIPMENT DONATIONS - OVER THE MARK!

Since the last newsletter the Computer Engineering Department has received two major donations, test equipment from the John Fluke Company and a PDP11 computer from Rosemount Engineering. These gifts bring the donated equipment total over the \$200,000 required to receive a matching grant of \$200,000 from the legislative appropriation. A number of additional donations are still being negotiated.

## INTERFACE INTERVIEW WITH TONE CARLSEN

TONE CARLSEN



Tone Carlsen comes from Lorenskog, Norway, a small town about ten miles from Oslo. She is currently enrolled in UMD's computer engineering program and recently received an award from the Minnesota Society of Professional Engineers. Selection was made on the basis of GPA, extra-curricular activities, and career goals. Tone graciously consented to be interviewed for Interface.

Q: What made you decide to go into computer engineering?

A: Actually, I was interested in computer science, but the Norwegian government would give me loans and grants if I went into computer engineering. There's no support for computer science. So I'll eventually graduate with a double degree in computer science and computer engineering. In fact, my attitude at first about computer engineering was that I couldn't do it, because I hated physics in high school!

Q: What brought you to UMD?

A: It was the right size school for me and I liked the fact that the weather and surroundings were like home, and I knew some people here. I came here 1 1/2 years ago.

Q: What are some differences between schooling here and at home?

A: Totally different! My first impression here was that everyone was babysitting me. I went for two years to the University of Oslo, where there are 20,000 students. I never had a class with less than 200 people in it. We never had tests; everything led up to a semester final that was six or seven hours long. It was easy to get lost there. You're by yourself at college in Norway. If you don't want to study, no one cares. If you fail, that's that. Here, an advisor is assigned to every student. I like this system better; I need feedback.

Another difference is that there are fewer electives, maybe one or two courses outside your major or minor. People at the university may take only two classes per quarter. It's much more concentrated on your specific field. It's probably a good idea to take liberal education classes as engineers do here. On the other hand, in Norway, we get liberal ed classes in high school.

Q: What about different grading standards?

A: Well, standards are high in Norway. At home I was an average student. Here I'm doing very well. But other factors probably enter in also.

As a whole, I'd say the student body at home is better at schoolwork, but their courses are so narrowed down. There are special schools, not colleges. For instance, at home, engineers attend a special school, so they don't get a university degree, although the work they do is equivalent to university work here. Universities in Norway are almost completely research oriented. And of course many more people go to college in the U.S.

Q: What about other, cultural differences you've noticed?

A: There seems to be so much group pressure here among students - what they do, what they wear, eat, what classes they take. Everyone is so "polished" here; no one sticks out. It seems that a lot of people are afraid to be different, though maybe that's because they're still trying to decide what they want to do and be. Things are more free, more open at home.

Q: You recently won an award. What was important to you about that?

A: Dr. Tseng announced the award, which is a grant. We had to write up a statement about why we'd be eligible for the award, and then there was an interview. What I'm most pleased about is the recognition!

Q: Has being a woman in the program affected your experience considerably?

A: I don't look at myself as a typical engineering student. The stereotype is that engineering students have no outside interests and I have many other interests. I took fourteen years of gymnastics and then coached it. Then I got into modern dance and was in the Winter Concert here. And I ski of course. I like being outside, like hiking in the woods. And I knit while watching T.V. (which I don't do much) or while traveling.

I thought it was hard to be the only woman in the program. I wanted to prove that I was good enough to be there, that I wasn't there only because they needed a girl in the program.

My fellow students have been great, just great. They treat me like anyone else. In the beginning, there were jokes. But now we're a fantastic team. We're not that competitive; we're willing to help each other. All of us are interested in learning, not that much in grades.

Q: What have been the toughest and the most enjoyable parts of your studies here so far?

A: Some of the difficulties didn't relate directly to my studies. It was hard to leave my family. We're a small family and very close. Also, when I first came here, I had trouble carrying on a conversation. We start English in fifth grade and study it for seven or eight years. We write some essays, but we don't get used to speaking it.

As far as studies go, the first quarter was toughest. I wasn't used to it. I had come from computer science classes. When I left home, I told my parents: if I just get a C average, I'm quitting. And my father said, give yourself a chance.

I really liked digital electronics. I learned a lot and had a lot of fun. Taking one test, I had an hour of fun and that never happened to me before.

Q: What do you plan to do after completing your degree?

A: If I could do whatever I wanted, I'd work in the U.S. for a couple of years and then maybe go on to grad school if I felt I needed it. It would be hard for me to work in the States (because of immigration laws). But I'd like the experience of working here first. Computer engineers are in such demand at home, I worry about too much responsibility too soon. I want to be as good as I can.

Q: What are the particular strengths or weaknesses of the UMD program?

A: There's a very good student body in the program, people who are willing to work hard. The weakness may be that they're pushing us hard and the program is too long. You need 209 credits to graduate and you have to stay on top of it all the time.

Q: What advice would you give students about to enter the computer engineering program?

A: Before you enter the program, have a good math background. And don't get discouraged; just hang in there. □

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