

EE News

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EE News Welcomes Dr. Eve Riskin to UW

New Professor Joins EE Faculty

The *EE News* would like to give a warm welcome to the EE Faculty's newest member, Dr. Eve Riskin. Professor Riskin came to the UW last month after receiving her Ph.D. from Stanford where she specialized in image compression. She did her undergraduate work at MIT, finishing up there in 1984.

Professor Riskin chose the UW over several other universities because of its reputation in medical imaging, its excellent medical school, and its location within a large city. An obvious newcomer to the Puget Sound region who has yet to experience the joys of the area's famous late fall, winter, and spring months, she has not been too thrilled with the comparatively mild weather here for her first month.

Beginning winter quarter, Dr. Riskin will be teaching EE 595, a course in data compression. In addition, she has received funding for research in the compression of medical

and binary images, and would like to encourage any students interested in these fields to stop by and see her in Room 310. She enjoys teaching, having been a T.A. for several courses while at Stanford, and thinks some of the qualities which make for a good instructor include knowledge of the material, responsiveness to the class, the ability to see things from the student's perspective, and a good sense of humor.

Looking toward the future, she sees radiological workstations and automated radiological pre-screening as two of the big advances coming in her field in the years to come. She is looking forward to getting settled in here at the U, establishing herself in her teaching and research, and becoming involved as a mentor for other women in engineering.

Again, welcome to the UW and the EE Department Professor Riskin!

—Dale Wilson

The Undergraduate Scholarship Watch

Have you ever wondered what kind of scholarship aid the Department has for undergrads? How do you apply? How are the winners selected? Well, read on and I hope to answer those questions and more.

This current year a total of 22 students have received undergraduate scholarships through the Department. The total amount awarded is about \$35,000 with awards ranging from \$500 to \$3600. Some of the awards come from the College of Engineering. A few companies (National Semiconductor, Chevron Information Technology, and Art Anderson) donate money specifically for EE undergrads. Even some EE alums have written checks to support scholarships. Another large source is the Electric Energy Industrial Consortium (EEIC) representing many energy companies in the region.

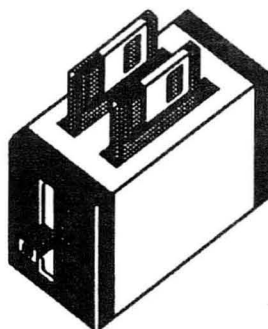
In order to be eligible, you must submit a COMPLETE Scholarship Application. In the past these have been due by March 1. I stress COMPLETE because of the 55 applications received this year, a large number were not. Typical problems were missing transcripts, no signature, and incomplete information on such things as credits, citizenship status, and expected graduation date. Incomplete applications are not considered for awards.

You should also know that many of the awards carry restrictions. Examples are GPA minimums, fields of

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Have you eaten breakfast lately?

*"Grounded in the Northwest"***Report from Northcon/90**

The Northwest's largest exhibition and conference for design, test and production engineers, also known as Northcon/90, took place at the Seattle Center Coliseum on October 9-11. As a joint venture of the Seattle and Portland sections of IEEE, the Cascade chapter of ERA, and the Electronics Manufacturers Association, the three-day event addressed the interdependence of engineering functions with a unique blend of vertical exhibits, corresponding vertical technical sessions and professional seminars, exploiting the latest engineering issues and technologies.

Over 300 companies and organizations, ranging from wiring manufacturers to CAE developers, exhibited their latest and best in automated design tools, design, development, test and production software, and analysis instrumentation. The twenty technical sessions were divided into four different disciplines: Design, Leading-Edge Technologies, Manufacturing, and General Interest. Some of the topics discussed during these sessions included Fault Tolerance, Visual Systems, Neural Network Theory and Application, and Education and Training on the 1990's. A number of professors from our department even participated in some of the sessions. (See article at right.) The 21 professional seminars, on the other hand, incorporated lessons and hands-on experience on such issues as basic Ohm's Law electronics for purchasing, sales, and production and support personnel, chemicals of the future, and "just-in-time" manufacturing. The special software demonstration sessions provided participants with even more opportunities to get their hands on the latest application programs.

Former *EE News* editor Ming Koh and I attended the conference on October 11th. On that day, we had the opportunity to see a Microsoft demonstration on a 386SX based IBM using Windows 3.0 with other Microsoft application programs. We learned about a new, powerful feature called Dynamic Data Exchange (DDE), which allows users to update imported data by editing the original. Say, for example, you have imported a pie-chart from Excel into Word, and you decide to change the value of one of the pieces of the pie. If Excel and Word are run simultaneously (multi-tasking), you can simply go to Excel, change the data, and the pie-chart exported to Word will automatically be updated. According to Steven R. Smith, associate vertical marketing manager, at least 1-2 megabytes RAM is recommended in order to have DDE perform without delays.

It was unfortunate that we were not able to see our professors in action, but as an overall impression, both Ming and I agreed that it was "neat."

—Ken Sadahiro

Professors Participate in Northcon/90

Professors Arun K. Somani and Linda Shapiro put in their time and effort to organize two of the twenty technical sessions offered at the recent Northcon/90 engineering conference. Professor Somani organized the technical session titled, "Fault Tolerance and High Performance Systems," (October 9) which mainly focused on the relevant issues and solutions in design and implementation of such systems that require integrity. Professor Somani presented the overview paper, in which he separated the focus of the session into two parts: the processing problems of a single-computer system, and the necessity and cost of redundancy implemented in a multi-computer system. He also discussed how redundancy can be reduced by using parallelism available in multi-computer systems. The three following papers, presented by professional engineers in the

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Seattle area, were titled "Fault Tolerance in Multi-stage Interconnection networks," "Reconfigurable Fault Tolerant Computer System," and "Testability Analysis Tools."

Professor Shapiro organized a technical session titled "Visual Systems." (October 10) The session described the recent advances in visual systems research and applications. Professor Shapiro presented two papers during this session. She presented the third paper of the session, "Using Ternary Relationships Among Image Line Segments to Represent Two Dimensional Patterns," with Professor J. Henikoff, and the fourth paper, "Representing Morphological Vision Procedures in Predicate Logic," with Professor Robert Haralick and graduate student Hyonam Joo.

When asked about the attendance to the technical sessions, Professor Somani replied, "they were not that well attended." He even mentioned that Professor Shapiro was disappointed at the low turnout. He did, however, stress the point that, "it is a very good industrial show, so I encourage more people to attend."

Also, Professor Robert Marks, together with Associate Professors Jeng-Neng Hwang and Les Atlas, presented a paper titled "Neural Network Research at the UW—Recent Results and Applications" for the Neural Network technical session (October 9).

—Ken Sadahiro

