

March 2004

### ECE Cooperative Professor



**Professor Scott Collins** was appointed as an Electrical and Computer Engineering Cooperative Professor in February 2004. Prof. Collins' received his Ph.D. in BioChemistry from Brigham Young University in 1980, where he worked on the thermodynamics of metal ion chelates. Prof Collins comes from the University of California, Davis where he served as a member of the faculty in Electrical and Computer Engineering from 1992 to 2003. He joined the Chemistry faculty of the University of Maine in September of 2002 with a joint appointment in the Laboratory for Surface Science and Technology. Prof. Collins has authored over 120 refereed journal articles and conference papers in the field of microtechnology and microsensor research. His current research is in the area of micro- and nano-fabrication, electrochemistry of electronic materials, and fractal phase transitions. Prof. Collins is particularly active in the emerging fields of nano science and nano technology and is pioneering several new technologies that address the physical manipulation, sensing, and characterization of biomolecules.

### Engineering Week – 2004



The month of February came to an end by the Engineering Expo on Saturday February 28th. The ECE department had a great presence at the Expo that attracted over 500 people including students from k-12 and their parents. Several projects such as the Lego Robotics, Lego Clock, Gun Rail, as well as ins and outs of VLSI circuits were used as demonstration tools. Rick Eason, Andy Sheaf, Mohamad Musavi, and eight students were at hand to engage the audience

on the activities of the ECE department. The pictures show the ECE booth at the Expo. With the addition of the IEEE student chapter tables that were set along with the ECE tables, almost one entire isle of the Expo was allocated to electrical and computer engineers. This years Expo was a great success and we will continue to have better and bigger presence in the future.

Preceding the Expo and on Friday night, the Engineering Banquet was held at the Black Bear Inn. Missy Cummings, one of the Navy's first female fighter pilots, was the banquet speaker who spoke on Automation in Aviation: Are We Heading Towards Life in the Matrix? She is currently a cognitive systems engineering assistant professor in the MIT Aeronautics and Astronautics department.

Click on the pictures for larger versions.

## **IEEE Dollar Dare**

Congratulation to Professor Dave Kotecki for winning the IEEE Dollar Dare award, 5 minutes of Hula Hoop in the department! The 2nd place winner was Professor Al Whitney. The event raised about \$350 for an [IEEE scholarship](#).

## **The Wheel of Life**



Last Nov 18, 2004 was a sad day for the ECE department. It lost one of its most dedicated long-time faculty members, Professor Walter W. Turner. During his 43-year tenure, Walter made many friends and contributions to the Department, the University, and the Community in which he lived. He always put students first and is remembered for his open-door policy and his poignant Maine humor.

Walter came to the ECE Department in September 1947 from MIT having just obtained BS and MS degrees in Electrical Engineering. In 1966, he served as Interim Chair as he helped to transition the department through changes, which ultimately put more emphasis upon the development of a graduate program in ECE. He retired as Professor Emeritus in January of 1990. In 1986, he was honored by being selected to receive the Ashley Campbell Award from the College of Engineering.

For many years he was a member of the National Council of Examiners for Engineers and Surveyors and was honored by them in 1989 for his many years of loyal and distinguished service to professional engineering. After his retirement Walter enjoyed researching and writing the [history](#) of the Electrical Engineering Department at the University of Maine. He was a member of the Maine Society of Professional Engineers, Maine State Board of Registration, NCEES, Phi Kappa Phi, Beta Kappa Nu, Tau Beta Pi, Sigma Xi, and the uniquely Maine:

Francis Crowe Society for Engineering Excellence. For more details about his life, see [his web site](#).

Walter's favorite courses were in the area of servomechanisms but he also taught many other courses offered by the department, especially EE-1, 2 and 3. Many students experienced Walter's care and concern for them. For many years, one of his servo courses was the only course that introduced students to nonlinear analysis techniques, one of the more difficult areas in EE. He had analog computers wired to study these type problems using methods of isoclines and other graphical approaches. He did a lot of public service consulting for the Department of Industrial Cooperation and for the State of Maine Public Utilities Commission. At one time he was reputed to be one of only a few people in Maine who actually knew where Greenwood City, ME is located (Guess which current professor knows that fact now). Not only was he a popular and well-liked teacher, but he was also known around the state as being a cooperative, helpful, and good resource person at the University. The department is interested to hear any anecdotes you may remember about Walter and any memorable experiences you may have had with him as either one of his students, an advisee, or former client in industry. Send them to [musavi@eece.maine.edu](mailto:musavi@eece.maine.edu) and we will put them on his [web site](#) where everyone can share memories of Walter.

Gifts in Walter's memory may be sent to the Walter Turner Scholarship Fund, Department of Electrical and Computer Engineering, University of Maine, Barrows Hall 5708, Orono, ME 04469-5708; or to other community organizations that also have funds in his memory (see [his web site](#))

## Grants Received

- D. Kotecki, "IC Design Investigation," BAE Systems, \$2,045, January 21, 2004.
- J. Vetelino and C. Holden, "RET Site: Sensors!," NSF, \$448,116, February 9, 2004.
- H. Resson, "Analysis of Gene Expression Data from Rhizoctonia solani Using Novel Clustering Algorithm," University of Maine Faculty Research Funds, \$8,010, February 16, 2004.

## Donations

- D. Hummels, 10 VDSPU-SHARC-PC FLOATs DSP development tool software packages, Analog Devices, \$42,500, January 28, 2004.

## Others

- Rosemary Smith was featured in [UMaine Today](#).
- The Faculty submitted 6 proposals for a total of about \$3.3M.