November 2001

First ECE Sleep-over scheduled for Nov 11/12!

This year, the ECE Department will sponsor two sleepovers in conjunction with the UM Open House for current high school students considering UM. The second event will be February 18. The general idea is that prospective students and parents arrive Sunday afternoon, some of our current ECE students take the prospective students to dinner, and we accompany the parents to dinner (different location). The prospective students bring

sleeping bags and are hosted by ECE students in the residence halls. In the morning, the high school students are connected with their parents for the Open House program. The sleepover gives prospective students a taste of campus living and gives them a chance to ask questions of their ECE hosts. It was a big hit last year, and we hope to repeat. Here is more information.

Musavi on Sabbatical at BU

This year, Prof. Mohamad Musavi is on sabbatical with the Cognitive and Neural Systems Department at Boston University. Dr. Musavi is studying the neurology and psychology of brain function with the intention of mathematically modeling physical phenomena. He is hoping to connect ongoing research in the UM Intelligent Systems Lab with BU's cognitive research. In addition, he is studying computational genomics with an eye toward developing new insight into the process of gene finding/sequencing



Some of our Strengths



THE UNIVERSITY OF MAINE Recently, the College of Engineering discussed the state of the College with with James Baskerville, VP Surface Ship Support and Advanced Technology, Bath Iron Works, Richard Higgins, VP of **ENGINEERING** Safety, Boeing Company, and Karl Hoose President/Founder, Applied Thermal Sciences, Inc. I thought I'd share a few of the UM College of Engineering strengths that were cited during the visit:

- Very high quality students The SATs of incoming UM engineering students match or exceed those of most other major universities.
- Strong emphasis on co-op In our department, for example, 80% of our students • have co-operative work assignments sometime during their studies. This experience is viewed very positively by corporate recruiters.
- Whole university experience We offer engineering students the broad educational experience not available at a technical institute.

- Role of undergraduate students in research We begin grooming those students who appear headed for graduate work to a much greater degree than other institutions
- Access to faculty No other university can boast better access to faculty. The personal attention that students receive is excellent.

Please visit our **Prospective Students web page**.

Computer Curriculum revision progress ..

Last month, I indicated the Department is currently considering changes to the Computer Engineering curriculum, and we asked your opinions/advice on the items below. Some progress has been made. However, we are still considering other actions. Here is an update:



- Convert <u>ECE471</u> Microprocessor Applications Engineering and <u>ECE477</u>, Hardware Applications Using C from technical electives to required courses. This action will likely be approved. No objections were received.
- Introduce additional C-language content in <u>ECE171</u> Microcomputer Architecture & Applications. This action will likely be approved. No objections were received.
- Convert <u>COS250</u> Discrete Structures from a required course to an elective. We are concerned that changing the status of this course could violate <u>ABET</u> requirements for our curriculum. To further investigate, we solicited the <u>policies</u> of several other ECE departments around the country. We are still in the process of evaluating the responses and meeting with the COS department. While we had hoped to have this curriculum question resolved before pre-registration, it doesn't look like it's going to happen. We'll keep you informed.

And finally ...

Dear Dad,

\$chool i\$ really great. I am making lot\$ of friend\$ and \$tudying very hard. With all my \$tuff, I \$imply can't think of anything I need, \$o if you would like, you can ju\$t \$end me a card, a\$ I would love to hear from you.

Love, Your \$on.

Dear Son,

I kNOw that computer techNOlogy, astroNOmy, and ecoNOmics are eNOugh to keep even an hoNOrs student busy. Do NOt forget that the pursuit of kNOwledge is a NOble task, and you can never study eNOugh.

Love, Dad

Publications, proposals, etc.

GRANTS RECEIVED

- M. DaCunha and J. Vetelino, "New Acoustic Wave Materials for High Temperature Chemical Sensors," Maine Space Grant Consortium/NASA, \$40,000, October 25.
- D.E. Kotecki received a MOSIS educational grant for the fabrication of 4 TCUs (estimated value \$9380), October 4.

PROPOSALS SUBMITTED

M. DaCunha (10%), R. Lad (25%), W. DeSisto (10%), B. Frederick (15%), P. Millard (15%), C. Tripp (15%) and C. Wheeler (10%), "Nanoscience and Materials Processing to Integrate Multi-Functional Sensor Arrays onto a Silicon Wafer," Air Force Office of Scientific Research, \$4,988,323, Oct. 22.

PUBLICATIONS

• K. L. Saenger, G. Costrini, D. E. Kotecki, K. T. Kwietniak, and P. C. Andricacos, "Submicrometer Platinum Electrodes by Through-Mask Plating," Journal of Electrochemical Society, Vol. 148, Issue 11, pp. 758-761, October 12, 2001.

PROFESSIONAL ACTIVITY

- D.E. Kotecki reviewed a paper for the Journal of Materials Research, October 23.
- D.E. Kotecki reviewed a book proposal for Oxford University Press, October 25.
- D.E. Kotecki attended the IEEE Maine Section executive committee meeting in Augusta, October 18.
- D.E. Kotecki attended the MTI proposal workshop in Augusta, October 26.
- D.E. Kotecki and A. Whitney attended the IEEE EDS seminar entitled, "Electrical Transport in Carbon Nanotubes" in S. Portland on November 1.
- D.E. Kotecki attended the High Performance Computing (HPC) Technical Interchange Meeting (TIM) sponsored by the Air Force in Bedford, MA on November 2.
- D.E. Kotecki visited Fairchild Semiconductor on November 1.