

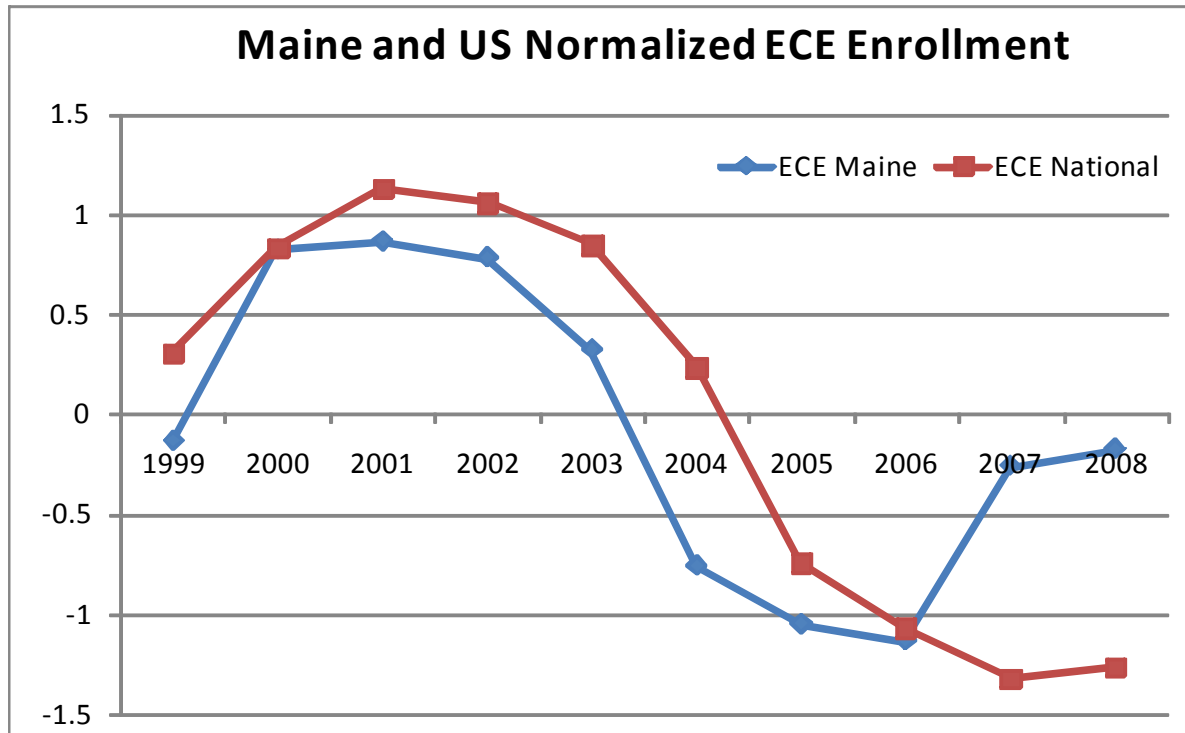


Newsletter - October 2009

Welcome Class of 2013

This year there are 38 students entering the Electrical and Computer Engineering programs. We have an outstanding group of students, among which is a student from Maine School of Science and Mathematics who built a functional wind generator for his high school project, <http://www.instructables.com/id/7-Foot-Axial-Flux-Wind-Turbine/>. As compared to the previous years, this year's incoming class is smaller and we believe this is due to a national trend as indicated in the following figure.





Awards and Recognition

Faculty/Staff

Abedi received the IEEE Member and Geographical Activities Board Certificate of Appreciation for serving as Communications and Computer Societies Joint Chapter chair from 2006-08 in the State of Maine.

Y. Zhu received the Certificate of Appreciation award for serving as the program chair of the 2009 IEEE International Conference on Networking, Architecture, and Storage.

Students

Electrical and Computer Engineering students received scholarships/awards for the 2009-10 academic year totaling more than \$140,000. These awards were made possible by the support of Microelectronic Consortium member companies, named scholarships, and alumni like you. Thank you!

Scholarship Recipients are listed below:

Endowed Scholarships	Recipients
Harold H. Beverage Scholarship	Brian Grant
RCA Harold Beverage Scholarship	Corey Birdsall

Carleton M. Brown Scholarship	Michael Fitzgerald, John Misener
Butler Professorship	Carleton Ericson, Kevin Hanselman, Chad Paradis, Breanna Stanaway
Castle Professorship	Kyle Bell, Daniel Clark, Derek Cormier, James Ward
Walter J. Creamer Scholarship	Alex Bryant, Matthew Edwards, Craig Harrison, Aaron McCollough, Craig Verrill
ECE Alumni Gift	Jonathan Fuller, Evan Kus, Ian LaForge, Jeremy LaPerriere, Matthew Ouellette, Joseph Record
Haskell Power Engineering	Casey Maskalenko, David McGuire, Jonathan Shaw, Colton Sablinsky
David D. Holmes Scholarship	Brian Bousquet-Smith
IEEE	Thomas McGuan
Fred H. Irons Scholarship	Jason Monk
William Lambert Scholarship	Nathan Benamati, Craig Verrill
Waldo M. Libbey Scholarship	Guangbin Li, Steven Pesut
Louis H. Morrison Scholarship	Keegan Kilroy
Roger Moulton Scholarship	Mark Hebert
Edmund M. Sheppard Scholarship	Ian Lane, Sean Rollins
Rajendra & Neera Singh Scholarship	Michael Fitzgerald, Jason Monk
William G. Stoy & Judith Kenoyer Stoy Scholarship	Matthew Jones, Keegan Kilroy
Walter W. Turner Scholarship	Alex Bryant, Matthew Dunn, Mark Hebert, Gabriel Noblesmith

Industry Scholarships	
Microelectronics Scholarships	Recipients
Analog Devices	Joseph Grace, Evan McClellan, Garret Preston
Fairchild Semiconductor	David Hunter, Jamie Reinhold, Christopher Washburn
Kepware Technologies	Michael Gagne, Robert King, Tyler Lalime

2009 Summer Research Experiences for Undergraduates

During the Summer of 2009 two NSF-REU summer research programs were offered by the faculty for undergraduates.

NSF Research Experience for Undergraduates in Sensors

During the Summer of 2009, 13 undergraduate students participated in research with various faculty in the area of sensor science and engineering in the Electrical and Computer Engineering Department and the Laboratory for Surface Science and Technology (LASST). The program

was headed by Dr. John Vetelino and Dr. Nuri Emanetoglu and was supported by the National Science Foundation. Pictured below are the participants.



L-R: Brendon Beote (UMaine), Nimesh Patel (U.Conn.), John Misener (UMaine), Trevor Davis, (UMaine), Matthew Dunn (UMaine), David Hunter (UMaine), Craig Harrison (UMaine), Eulan Patterson (UMaine), Shameika Ansley (TX A&M), Bryn Nugent (UMaine), Ernest Jones (Benedict College, SC), and Gabriel Collier (Benedict College, SC). (Not pictured is Ben Ashman (Ohio Univ.)

Supercomputing Undergraduate Program (Super ME)

Summer 2009 also brought 10 undergraduates to participate in scientific exploration ranging from engineering to sciences with a focus on scientific computing. The program led by Dr. Yifeng Zhu and Dr. Bruce Segee was the second of a three-year project sponsored by the Undergraduate Research Experiences (REU) of the National Science Foundation (NSF) in collaboration with the Department of Defense.



L-R Bottom Row: Nash Kellaway (Wellesley College, MA), Stacey Gomm (UMaine), Sara Doan (Allegheny College, PA), Middle Row: Aaron Robinson (High Point Univ., NC), Stephen Beery (Benedictine College, KS), Top Row: Dylan Suvlu (UMaine), Rob King (UMaine), Matt Jones (UMaine), Elliott Moy (U. Mass, Lowell), Jason Monk (UMaine).

Alumni Profiles for the College of Engineering Web

We at the college of Engineering are committed to raising the awareness about the field of engineering and how it makes a difference. To help put a face to engineering, the college is reworking its website to show profiles of engineers in the field. The aim is to reach prospective students and increase enrollment, thereby, increasing the number of professional engineers in Maine and elsewhere.

Would you be willing to be profiled as a role model for young students who are considering engineering or who are now majoring in it? We need to increase the number of role models in this field - both men and women - and we sure could use your help! Young students, male and female, want to make a difference in their community and their world. Think about those young people who are wondering just what an engineer does.

We have prepared a survey at: <http://www.eece.maine.edu/survey/mentor/> for your convenience. In addition to the survey information, we would also like to have your profile and your picture to be featured in the college website. Send your profile and photo to Susan Niles at susan@eece.maine.edu. If you have any questions, you can email her or call her at (207) 581-2224.

Thank you for your help in showing the next generation of engineers what engineering is all about!

High School Visits

The Department has started visiting high schools and career fairs for recruiting purposes. On September 23, we visited Old Town High School, <http://www.wabi.tv/news/7726/old-town-high-school-college-and-career-fair>. In our visits, we would like our alumni to accompany us and talk about their education, experiences at work, and path to success. If you are interested in visiting your local high school, please let us know and we will arrange the visit and have the Chair or a faculty member accompany you. Please contact Susan Niles at (207) 581-2224 or susan@ece.maine.edu.



L-R: Dr. Bruce Segee, Susan Niles, Jason Withee, Nathan Bourgoin

Gifts/Donations

We sincerely appreciate the support of our alumni and corporate supporters. During this challenging economic time, your support of our scholarship programs means a lot to our young and hardworking students.

Analog Devices, \$22,500, July 30.

Kepware, \$5,500, July 30

Jackson Laboratory, in kind gift of digital phones with trunk cards for use in Ali Abedi WiseNet Lab, \$1,800, Aug. 5.

Mrs. Linda Long, \$500

Dr. and Mrs. Willis Tompkins, \$500

Grants Received

Since July 2009, the ECE faculty have received \$1,689,801 in grants.

M. P. da Cunha (PI) and R. Lad (Co-PI), "LGX High Temperature Acoustic Wave Sensors," Air Force Research, DoD, \$688,214, July 1

D. Hummels and **Y. Zhu**, "Mobile Computing and Digital Development Laboratory," Curriculum Fee proposal, (\$9,018 match, \$24,538 requested) \$33,556, July 1.

M. P. da Cunha, "NSF REU Sensors: Detecting Microbial Pathogens with Novel Surface Acoustic Wave Devices in Liquid Environments," NSF, \$6,000, July 15.

R. Lad and **M. P. da Cunha**, "Sensors for High Temperature Harsh Environments," MTI, \$6,250, August 10.

M. Worboys (PI, 25%), **A. Abedi** (25%), K. Beard (25%), S. Nittel (25%), Wireless Sensor Networks for Emergency Managements, \$125,000, Funded by National Guard and FEMA through GRT, August 2009.

C. Tripp (PI, 50%), **A. Abedi** (50%), Biological Sensing Using Statistical Signal Processing, \$37,500, Department of Defense SBIR Phase-I, August 2009.

A. Abedi (PI, 100%), NASA Exploration Systems Senior Design, \$10,000, NASA, September 2009.

Y. Zhu, "HECURA: A New Semantic-Aware Metadata Organization for Improved File-System Performance and Functionality in High-End Computing," NSF, \$363,141, 2009-2012.

Y. Zhu, "DC: Small: Energy-aware Coordinated Caching in Cluster-based Storage Systems," NSF, \$139,304, 2009-2012.

B. Segee (Senior Personnel, 2.5%), **Y. Zhu** (Senior Personnel, 2.5%), PI: M. Eckardt 5%, Co-PI: V. Nemeth, 14%, D. Hart 15%, Maine's Sustainability Science Initiative, \$125,000, NSF RII, 2009-2014.

B. Segee (Senior Personnel, 10%), **Y. Zhu** (Senior Personnel, 10%), PI: M. Eckardt, 20%, Co-PI: V. Nemeth, 30%, Collaborative Research: North East Cyberinfrastructure Consortium, \$135,000, NSF RII Track-2, 2009-2012.

Y. Zhu, **A. Abedi**, **B. Segee**, **J. Vetelino**, **N. Emanetoglu** and **M. daCunha** received small grants from UMaine President Robert Kennedy in recognition of personal success at recovering University facilities and administrative (F&A) costs relating to sponsored programs, Sept, 2009. Total amount = \$20,836.

Other

Since June the faculty have submitted proposals for a total of about \$1,700,000.