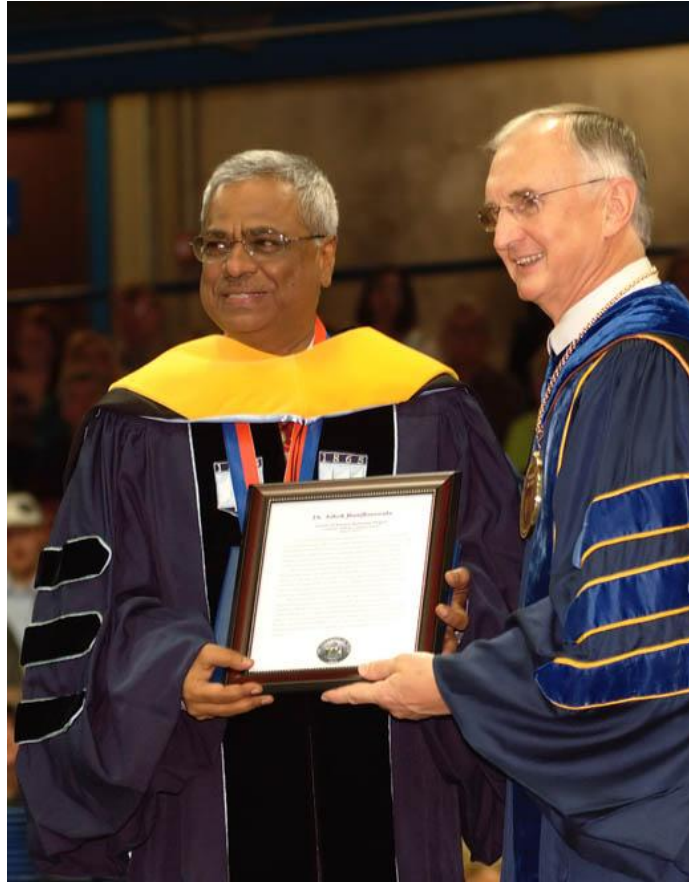


ECE Alumnus Receives Honorary Doctoral Degree



ECE alumnus, Ashok Jhunjunwala receives his honorary doctoral degree from President Kennedy during the May 8, 2010 graduation ceremony.

Dr. Ashok Jhunjunwala received his master's in electrical engineering in 1977 and became the first to earn an electrical engineering doctorate at the University of Maine in 1979 under Professor John Vetelino's supervision. On campus, he developed his leadership skills within the international student group and the ECE Department, assisting and mentoring others. He also became a very effective peace and justice activist and educator. During his time at UMaine he was a leader of the Maine Peace Action Committee. Dr. Jhunjunwala credits his years at UMaine for both his development as an engineer and for expanding his views on social justice and environmental issues.

Since graduation and his return to India, he has led efforts to make technology accessible to millions of residents, both urban and rural. A professor at the Indian Institute of Technology-Madras, he applied his knowledge of science and technology to fulfill a vision of bringing his fellow citizens affordable telecommunications and improved computer networks. By innovatively utilizing “loop” (wireless) technology rather than prohibitively expensive copper wiring, he and his colleagues helped bring telecommunications service to 700,000 villages through 100 million telephone connections.

Throughout his career, Dr. Jhunjhunwala’s commitment to engineering and science has been linked to his commitment to helping people. By his standard, a successful project is one in which the livelihood and well-being of less fortunate Indians is improved.

In 1998 he received the Shanti Swarup Bhatnagar Award for outstanding contributions in the field of engineering sciences. Four years later, for his efforts to improve the lives of so many people, he was awarded the Padma Shri Award, one of the highest awards in India. This prestigious award recognized his distinguished service in science, technology, and telecommunications. He also serves on the Scientific Advisory Committee of the Prime Minister of India.

ECE Distinguished Engineer Inducted Into Francis Crowe Society



Brian Conroy (far right) is a Director of Engineering and Asset Management at Central Maine Power Company. He graduated from the University of Maine in 1986, earning his BSEE degree with high distinction, and he received his MBA in 1992 from Thomas College. After graduation, Brian went to work for Central Maine Power Company and he has held positions in Meter Operations, Load Management Operations, Distribution Engineering, and the Energy Control

Center before assuming his current position. Mr. Conroy is a senior member of IEEE and former chair of both the Maine Section and the Central New England Council. He is a member of the Northeast Power Coordinating Council, and he is a Registered Professional Engineer in the State of Maine. Also, Brian's oldest daughter is a junior attending the University of Maine in the School of Business Administration.

ECE Lecturer Eric Beenfeldt Retires

Eric Beenfeldt received his B.S. in Electrical Engineering from Lafayette College in Easton, Pennsylvania. He was initially hired by the University of Maine in 1979 as a Teaching/Research Associate-Laboratory Coordinator. He completed his M.S. in Electrical Engineering in 1987 and was promoted to a Lecturer position within the department. For many years Eric taught both the Department's first year courses as well as the final capstone design courses. Our first year courses are still taught using the materials that Eric developed. Over the past few years, he has taught sophomore circuit courses while continuing his capstone design courses sequence.

Throughout the years, Eric contributed significantly to the work of many faculty members by acquiring, developing, constructing, and maintaining much of the hardware and other equipment upon which our research so heavily depends. He has been very active in consulting, particularly with Maine Companies needing help with developing products and/or manufacturing equipment. For his outstanding service to the department, Eric was awarded the Dean's Excellence Award during the 2004-05 academic year.

The ECE Department wishes Eric all the best in his retirement.

ECE Professor Participates in Energy Fly-in Program at US Congress

Energy underlies and connects three converging challenges that face the United States in the early 21st century: security, prosperity, and the environment. To address these issues, President Barack Obama and Congress have vowed to make energy issues a priority this year.

Dr. Ali Abedi, Assistant Professor of Electrical and Computer Engineering at the University of Maine was invited by IEEE-USA to participate in 2010 Energy Fly-In to help deliver this message to Congress by discussing technical aspects of the energy policy bill with senators and congressmen.

The core aspects of the current threats linked to energy are: the addiction to oil and the threat of



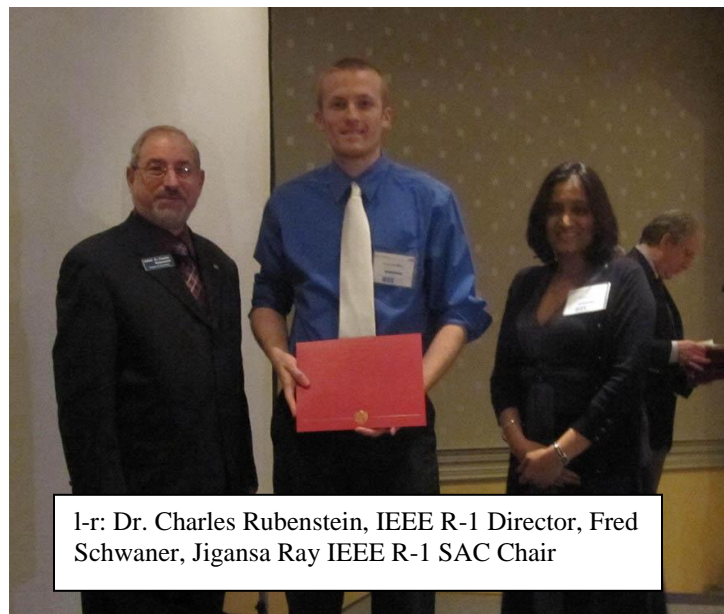
l-r: Dr. Ali Abedi, Senator Susan Collins, Scott Irving at the IEEE Energy Fly-In Event, U.S. Congress, May 18, 2010.

climate change to the health of the planet and the prosperity of humanity. To address these issues, established technologies must be applied at unprecedented scale and on an accelerated schedule. Emerging technologies require further research and development. Innovation is still needed. Bold actions and substantial investments will be required to meet the challenges.

The [*National Energy Policy Recommendations*](#) outlines the key actions and investments that IEEE-USA believes are necessary to achieve these goals. IEEE is the largest technical professional association in the world with over 360,000 members worldwide from which 215,000 members live in the US.

ECE Graduate Student Receives Second Place Best Paper Award

Frederick Schwaner, an Electrical and Computer Engineering doctoral student from Hebron, Maine won the Second Place Best Paper Award at the IEEE Region 1 and Region 2 Joint Conference in Philadelphia on April 17, 2010 along with a \$500 cash prize. IEEE Region-1 and 2 covers 11 states (ME, NH, VT, NJ, NY, MA, RI, CT, PA, VA, OH) with 69,187 IEEE members. Fred presented his work on wireless sensors for rocket applications. He developed this work while an undergraduate student at the UMaine WiSe-Net Lab working on a NASA funded project under the supervision of Dr. Ali Abedi, Assistant Professor of ECE. Funding for traveling to this conference was provided by the ECE Department, the IEEE Maine Section, and the IEEE Region-1 Student Activities.



l-r: Dr. Charles Rubenstein, IEEE R-1 Director, Fred Schwaner, Jigansa Ray IEEE R-1 SAC Chair

Girl Scouts Visit ECE Department

In April, eleven Girl Scouts from as far north as Presque Isle, Maine to as far south as Bath, Maine, with the support of the Girls Engineer Maine Program, came to the University of Maine to work on projects in electrical and computer engineering ([see video](#)). The girls have been exposed to many male dominated fields as part of an exposure program. These girls are learning to reject gender stereotypes. The University partnered with the Girl Scouts in this engineering program after college officials discovered the number of female engineers in Maine is lower than the national average.

Congratulations 2010 Graduates!

This year we had 29 graduates of which 24 graduated in May, one will graduate in August and four in December. Ten have accepted employment with an average salary of \$60,000 and four are going on to graduate school. The ECE graduating students were inducted into the Francis Crowe Society on May 8 at a college ceremony attended by family members, distinguished inductees, and faculty. After the ceremony, family and friends gathered in the Engineering and Science Research Building for a luncheon. The picture below shows part of this gathering. Each year Hovey Awards are given to one senior in each department of engineering. The selection is based on character, scholastic attainment and general promise as an engineer. This year's Hovey Award winner was Evan McLellan. Other awards were given to students for their Senior Projects. The 3rd place winners were Craig Harrison and Zachary Norris, 2nd place winners were Michael Gagne and Matthew Jones and the 1st place winner was Nathan Reimensnyder. The outstanding senior award went to David Hunter.



L-R: Joseph Gaudet, Revant Shah, Tariq Majeed, Nathan Reimensnyder, Robert King, Hicham Mziguir, David Chamberlain, Jeffrey Holeway, Daniel Chamberlain, Zachary Norris, Dylan Godwin, Craig Harrison, David Hunter, Mark Hebert, Trevor Davis, Brandon Newman, Noah Winter, Kenneth Willey, Michael Gagne, Nathan Cunningham, Matthew Jones, Seth Kimball, Garrett Preston, Evan McLellan. (Absent from photo: Gary Jordan, Jay Kim, Dana Labrecque, and Thomas McGuan)



ECE Department to host 2010 CANEUS Fly-By-Wireless Workshop

The 2010 CANEUS Fly-by-Wireless (FBW) Workshop will bring together leaders from aerospace industry, academia, and government agencies, to discuss recent advances in wireless communications focused on applications in aerospace industry. The workshop will be hosted by the University of Maine, Orono, Maine, on August 24-27, 2010. The Workshop remains a unique forum for wireless technology providers and end-users to discuss aerospace roadmap for future research and development and form meaningful partnerships. New innovations such as battery-free wireless sensor systems, reliable multi-tier wireless networks, and high temperature sensors will be highlighted at the workshop. Ultimately, this effort will contribute to minimizing cables and connectors across the aerospace industry by providing more reliable and higher performance wireless alternatives at lower cost.

The 2010 CANEUS FBW Workshop, third of its kind, builds on the successes from the 1st Joint CANEUS/NASA 2007 "Fly-by-Wireless" Workshop, held in March 2007 at Grapevine, Texas and the 2nd CANEUS "Fly-by-Wireless" Workshop held in June 2009 at Montreal, Canada. The first CANEUS/NASA FBW workshop grew out of an identified need from the CANEUS 2006 Aerospace End-User Committee on SHM - Structural Health Monitoring held at Toulouse. Organizations from the Americas, Europe and Asia regions, attending CANEUS workshops, have taken concrete steps to continue development of their wireless programs and also establish successful collaborative projects, e.g. Wi-Testbed, Frequency Spectrum, Wi-Engine, Wi-SHM, Wi-Sense, and others.

This workshop is open to the public. For more information and registration visit <http://www.caneus.org/fbw10> or contact Dr. Ali Abedi, abedi@ece.maine.edu.

University of Maine Re-organization Plan Update

In our April Newsletter, we informed you of the University of Maine re-organization plan and the recommendation of the Academic Program Prioritization Working Group (APPWG) (<http://www.eece.maine.edu/news/newsletters/pdf/April2010.pdf>). Under the APPWG plan, the Computer Engineering program was being considered for elimination.

On May 4, President Robert Kennedy announced his plans for UMaine's academic programs. He also unveiled UMaine 150, a plan that will create new opportunities and reaffirm UMaine's position as strong, viable and prepared to lead the state as the institution approaches its 150th anniversary in 2015 (<http://www.umaine.edu/umaine150/>). Under his plans, the Computer Engineering program will continue to provide educational opportunities for students. In his speech, he stated "I have also asked Dean Humphrey (Dean of College of Engineering) and Dean Hecker (Dean of College of Liberal Arts and Sciences) to work with Dept. of Electrical and Computer Engineering, Dept. of Spatial Information Science and Engineering and Dept. of Computer Science faculty to create a meaningful collaboration among our computer-related disciplines." Based on the president's plan, Dean Humphrey and Dean Hecker have charged the chairs of the three departments to explore models for organizational structures that will facilitate collaboration among the Computer Engineering, Computer Science, and Spatial Information Science and Engineering programs. A proposal is expected to be presented to the president by December 2010.

We sincerely thank all of you who have written to us and provided support and we encourage you to continue writing to us with your opinions. I will keep you informed of our efforts in the next Newsletter.

Publications

Peer Reviewed Publications

J. Yue, **Y. Zhu**, Z. Cai, L. Lin, "Energy and Thermal Aware Buffer Cache Replacement Algorithm", in Proceedings of 26th IEEE Symposium on Massive Storage Systems and Technologies (MSST), May, 2010, Page 100-110, ISBN 9781-4244-7153-9

Q. Zou, **Y. Zhu** and D. Feng, "A study of Self-similarity in Parallel I/O Workloads", in Proceedings of 26th IEEE Symposium on Massive Storage Systems and Technologies (MSST), May, 2010, Page 1-6, ISBN 9781-4244-7153-9.

Other

Since April 2010, the ECE faculty has submitted four proposals for a total of \$2,118,422.