



Newsletter - April 2009

The Dale & Julia Flanders Engineering Leadership Scholarship Fund

The Dale & Julia Flanders Engineering Leadership Scholarship Fund was established in the University of Maine Foundation in 2007 for the benefit of the University of Maine, Orono, Maine, with a gift from Dale and Julia Flanders of Lexington, Massachusetts. Dale is a native of Guilford, Maine. He attended the University of California, Berkeley, and went on to complete his Bachelor of Science, Masters and Ph.D. at Massachusetts Institute of Technology. Dale met his wife Julia at UC, Berkeley, where she received her degree in Anthropology. Their daughter Lauren is a student here at UMaine. Dale was President, CEO and founder of Axsun Technologies in Billerica, Massachusetts. The fund shall be used to provide scholarship aid for electrical and computer engineering students attending the University of Maine with first preference for those who intend to participate in the fifth year MBA program. Dale is great supporter of the Electrical and Computer Engineering Department and serves on the Department Industrial Advisory Board.



Dale Flanders (center) with some students from the ECE 300 seminar class



UMaine to Host Haskell Energy Conference

The University of Maine Electrical and Computer Engineering Department will host the Haskell Energy Conference: Electricity's Role in Meeting Our Energy Needs from 8 a.m. to 4:30 p.m. Thursday, April 2, at the Hilton Garden Inn, Bangor, Maine.

The conference will focus on the important energy challenges ahead and the path forward for building a smart electrical grid.

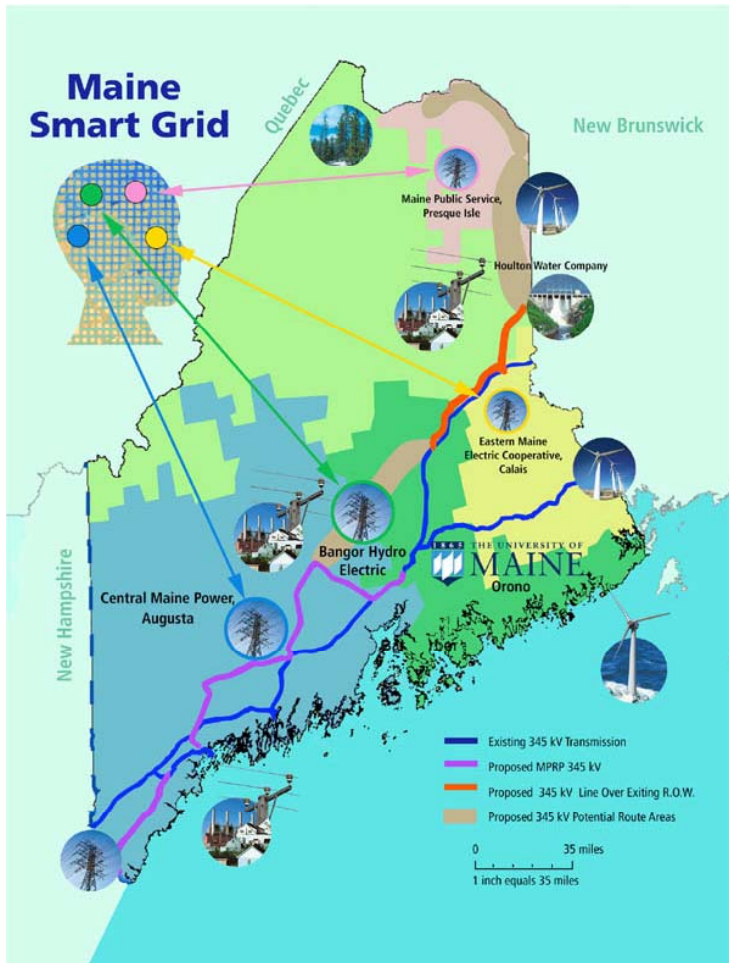
In response to President Barack Obama and the U.S. Congress's call to reduce dependence on fossil fuels, UMaine is aiming to assist the state electric utilities in the implementation of a Maine Smart Grid (MSG). All major Maine electric utility companies, including Central Maine Power Company, Bangor Hydro-Electric Company, Maine Public Service Company, Eastern Maine Electric Cooperative, and Houlton Water Company actively are participating and will benefit from this initiative.

The integration of the MSG with existing renewable energy sources, such as wind power, not only will satisfy the state's energy needs but also the needs of other states resulting in significant economic development opportunities for Maine. MSG will be a digital, connected, and controllable electrical energy network that will provide reliability, efficiency, security, and access to the state's vast energy resources.

Specifics of the MSG project will be discussed at the Haskell Energy Conference, which is designed for industry personnel, students, researchers, and the public.

The event will feature a keynote address by Larry Kazmerski, Executive Director for Science and Technology Partnerships, National Renewable Energy Laboratory of the U.S. Department of Energy.

Other presenters will include representatives from Bangor Hydro Electric Company, Central Maine Power Company, Ocean Renewable Power Company, Maine Public Utilities Commissioner Jack Cashman, and several UMaine researchers.



The day will conclude with a panel discussion titled "Building Maine's Energy Future-Challenges and Opportunities."

Participants can receive six Professional Development Hours toward the state's professional engineering educational requirement for attending.

To register and for a complete listing of the days events and speakers, visit www.eece.maine.edu/conference. The registration deadline was Thursday, March 26.

The Haskell Energy Conference is funded with support from the Haskell Professorship in UMaine's Electrical and Computer Engineering Department.

Robert N. Haskell graduated from UMaine in 1925, and was the former president and chair of the Bangor

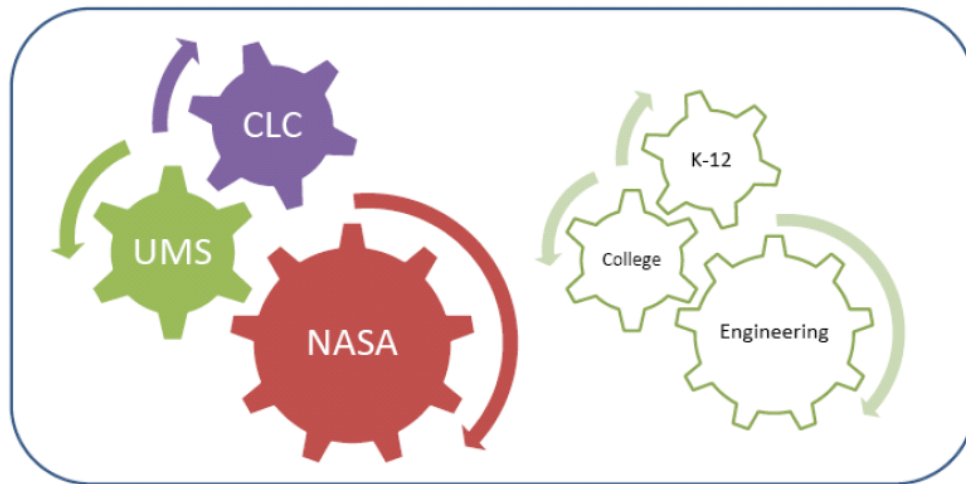
Hydro-Electric Company Board. He also served in the Maine House of Representatives and Maine Senate. Mr. Haskell's contributions shaped the foundation of the electric energy network in Maine.

For more information, call (207) 581-2223.

ECE Professor Receives NASA Grant to Mentor K-12 Students

Dr. Ali Abedi has received a grant from NASA to mentor K-12 students. The project entitled, "I Mentor K-12 Students (iMeK) is focused on enhancing the science, technology, engineering and math (STEM) connections between undergraduate education, early secondary education, and the career opportunities associated with NASA missions. The participating undergraduate students will engage in a science and engineering design process workshop aligned with a current NASA mission. They will then act as classroom mentors for K-12 students preparing for mission simulations hosted by the [Challenger Learning Center of Maine](#) (CLC of ME). This will not only train the undergraduate and K-12 students in connected STEM content, but also develop their leadership, teamwork, problem solving, and communication skills

Sixteen undergraduate students will be recruited based on a competitive process and the competition will take place at all seven campuses of the University of Maine.



iMeK: Chained Training Philosophy

Alumni News

If you have any interesting stories you would like to share with us, please send them to susan@eece.maine.edu with a short paragraph and include pictures if available.

Gifts/Donations

John A. Bouchard
Ronald D. Dee
Miroslav Juric
Robert A. Lowell
Timothy R. Osborne
Averie E. Stinson

Grants Received

A. Abedi (PI, 80%), E. Besnard (20%), “Wireless Accelerometer Sensors for Vibration Monitoring During Rocket Launch,” NASA, \$80,000, Feb. 2, 2009.

A. Abedi (PI 50%), M. Hayes (50%), “Improving the Signal to Noise Ratio of Event-Related EEG Signals in High Risk Newborns, MSGC/NASA, \$14,443, March 1, 2009.

A. Abedi (PI 100%), “I Mentor K-12 Students (iMeK)”, MSGC/NASA, \$9,892, March 1, 2009.

J. Vetelino (PI) and **Nuri Emanetoglu** (Co-PI), “REU Site: Sensor Science and Engineering,” NSF, \$320,000 (3 yr. grant), March 6, 2009.

Publications

Peer Reviewed Journals

D. McCann, J. McGann, J. Parks, D. Frankel and **M. Pereira da Cunha**, "A Lateral-Field-Excited LiTaO₃ High-Frequency Bulk Acoustic Wave Sensor," IEEE Trans. on Ultrasonics, Ferroelectrics, and Frequency Control, Vol. 56, No. 4, pp. 779-787, April 2009.

B. Sturtevant, P. Davulis and **M. Pereira da Cunha**, "Pulse Echo and Combined Resonance Techniques: A Full Set of LGT Acoustic Wave Constants and Temperature Coefficients," IEEE Trans. on Ultrasonics, Ferroelectrics, and Frequency Control, Vol. 56, No. 4, pp. 788-797.

Other

Since February the faculty have submitted proposals for a total of about \$3,700,000.