ELECTRICAL & COMPUTER ENGINEERING

Newsletter, June 2008

Frances Crowe Society Distinguished Inductee - Dr. Denham Ward



Dr. Denham Ward, (BSEE '69) was selected as the Francis Crowe Distinguished Inductee for 2008. Dr. Ward is the Associate Dean for Faculty Development, Medical Education at Rochester University School of Medicine and Dentistry. He is also a Professor of Anesthesiology and a Professor of Biomedical Engineering at Rochester University.

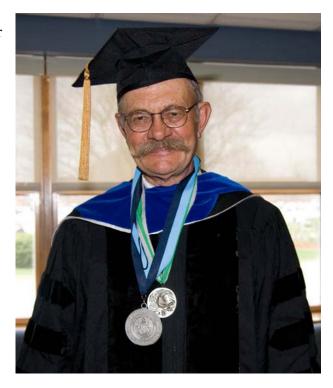
Dr. Ward grew up in Waterville, Maine and graduated from the University of Maine receiving his BS in Electrical Engineering with highest honors in 1969. Continuing on to graduate studies, he received his MS in Engineering (1971) and his PhD in Systems Engineering (1975) from the University of California Los Angeles (UCLA), and his MD from the University of Miami, Florida in 1977. From 1977 to 1980, he did an Internship in Internal Medicine at the Jackson Memorial Hospital, Miami and a Residency in Anesthesiology at UCLA, for which he was the Chief Resident. He has received

several honors from the University of Maine, Rochester University, and others including Tau Beta Pi, Eta Kappa Nu, Phi Kappa Phi, Hughes Aircraft Company, Crump Institute, Ronal Gabel Award, AAMC Humanism in Medicine Award, and Marshal Lichtman Dean's Senior Teaching Scholar. Dr. Ward's prior positions include Chairman of the Department of Anesthesiology, Rochester University, Senior Director for Surgical Support Services, Strong Memorial Hospital, Director of Respiratory Research Laboratory (UCLA), Director of Anesthesia Residency Program (UCLA), and Acting Director of Cardiac Anesthesia Division.

Dr. Ward has held Medical Licensures in New York, California, and Maine and is a Board Certified member of the American Board of Anesthesiology, Institute of Electrical and Electronics Engineering, International Anesthesia Research Society, American Society of Anesthesiologists, NY State Society of Anesthesiologists, Society for Education in Anesthesia, Association of University Anesthesiologists, and Anesthesia History Association. Dr. Ward has given more than 80 lectures and presentations in meetings, seminars, and conferences. He has held 24 Visiting Professor positions in many universities and medical establishments. He has been the chairman of the thesis and dissertation committee for 14 graduate students and postdoctoral fellows and obtained 19 grants and awards. He has published 57 peer-reviewed journal publications, 8 books, monographs, and guidelines, and 120 other papers, book chapters, letters, and abstracts.

John Vetelino Receives 2008 Distinguished Maine Professor Award

Dr. John F. Vetelino, University of Maine Trustee Professor of Electrical and Computer Engineering (ECE) and a founding member of the Laboratory for Surface Science and Technology (LASST), has received the 2008 Distinguished Maine Professor Award. Dr. Vetelino has been recognized as a Senior Member of the world's largest professional society, the Institute of Electrical and Electronics Engineers (IEEE) and received the University of Maine Presidential Research and Creative Achievement Award in 1980. During his 39 years at the University of Maine, Dr. Vetelino has impacted and transformed the lives of hundreds of undergraduate and graduate students, and through his research and entrepreneurial activities has created new and exciting opportunities for Maine citizens. Dr. Vetelino's dedication to education, equal opportunities, outreach,



entrepreneurship, research creativity, and excellence make him an outstanding and deserving recipient of the 2008 Distinguished Maine Professor Award. As part of this recognition, Dr. Vetelino spoke at the University 2008 Commencement Ceremony on May 10th and the Alumni Association Reunion Breakfast on May 31. His Commencement Speech is available at: <u>http://www.umaine.edu/commencement08/vetelino.htm</u>. More on Dr. Vetelino's service will be published in the Fall 2008 newsletter.

Dedication of the Allison Whitney Electronics Laboratory

The dedication of the Allison I.Whitney Electronics Laboratory was held on Tuesday, April 29, 2008 in the Engineering Science Research Building Arthur St. John Hill Auditorium. The dedication was attended by the Whitney family (wife Judy, daughter Jean, son Ray and his wife Hanna), UMaine President Robert Kennedy, Dean of Engineering Dana Humphrey, Associate Vice President for Development, Eric Rolfson, President and Executive Director of Alumni Association, Todd Saucier, Senior Development Officer, Patricia Cummings, supporters of the University George Sakelaris and Ken Bach, the Dean's Advisory council, the Al Whitney fundraising committee, and over 60 alumni and friends. After the dedication, refreshments were served and a tour was given of the Allison Whitney Electronics Laboratory.

The Allison I. Whitney '62 Electrical Engineering Fund was established in the University of Maine Foundation in 2006 for the benefit of the University of Maine, Orono, Maine, through gifts from friends, colleagues and former students of Allison I. Whitney. The principal shall be

endowed and only the income, as established by the University of Maine Foundation Board of Directors, shall be used to support the purchasing of equipment for the undergraduate laboratories at the University of Maine that are used by students seeking a degree in Electrical Engineering.



L-R: Ray, Hanna, Jean, and Judy Whitney.

The ECE Department is deeply grateful to all who contributed to this fund for providing quality educational experiences for students.

ECE Faculty Member Receives Graduate Student Mentor Award

Dr. David Kotecki was chosen as the recipient of the 2007-2008 Academic Year Graduate Student Mentor Award for the College of Engineering based on graduate students' letters of nomination.

Dave received a personal plaque at this year's Graduate Recognition Ceremony held on May 9, 2008 and will have his name engraved on a plaque in the library. Dave will also receive a one year's free membership to the University of Maine Faculty Club.

Other recipients of the award were:

- Dr. Carolyn Ball: College of Business, Public Policy and Health
- Dr. Patricia Burnes: College of Liberal Arts and Sciences
- Dr. Sandy Caron: College of Education and Human Development
- Dr. Yong Chen: College of Natural Sciences Forestry and Agriculture

Middle School Teachers for Computational Modeling and Visualization

Drs. Bruce Segee and Yifeng Zhu, collaborating with Dr. Peter Koons and Dr. Molly Schauffler from the Department of Earth Sciences and Dr. Xiongyi Liu from Education and Human Development, are leading an NSF-funded education program named IDEAS (Inquiry-based Dynamic Earth Applications of Supercomputing) that brings exciting experiences of supercomputing and scientific data visualization to middle school teachers. The program has conducted two day-long workshops in April and May. These workshops aim to generate education modules applicable to middle school classrooms. Twelve teachers, from member schools of the Penobscot River Education Partnerships, are participating in this program this year. IDEAS is a three-year program and it will involve 60 middle-school teachers and 180 middle-school students.



A photo gallery of the workshops can be viewed by visiting the following website: <u>http://arch.eece.maine.edu/ideas/index.php/Main_Page</u>

Congressional Visit

This past March, Dr. Ali Abedi joined 250 other scientists and engineers in an annual "Congressional Visits Day," sponsored by the Science-Engineering-Technology Working Group (SETWG). The purpose of the 13th annual event was to communicate to Members of Congress the critical nature of R&D funding and the impact that decreases in funding have on America's ability to compete globally. Ali expressed concern to Members about the FY08 Omnibus

Appropriations Bill, which flat-funds or cuts funding for key science agencies, including the National Institutes of Health, the National Science Foundation and the Department of Energy Office of Science. Federal expenditure in R&D is an investment, not an expense. It is only because of this investment that we have the quality of life we enjoy today and it is only through long-term, steady federal investment in America's research enterprise that we will continue to be successful as a nation. One example is the University of Maine's recent initiative called BWISE (Broadband Wireless Access and Sensing) that relies on National Science Foundation funds in FY 09 to help spread the wireless internet throughout Maine and benefit people and local businesses. The federal government supports a unique research and education enterprise that fuels the American economy. This enterprise provides the underpinning of high-technology industries and expands the frontiers of knowledge in every field of science. Much of this research is carried out at academic institutions across the country ensuring knowledge transfer to future generations of scientists, engineers, mathematicians, physicians and teachers. Additionally, technology transfer from academic research adds billions of dollars to the economy each year and supports tens of thousands of jobs. In his meetings with the members of the congress, Ali pointed out the dangers in decreased funding. "If funding continues to flatten and decline, the U.S. will lose out on innovations that can improve quality of life and bring quality jobs. Solutions to our nation's greatest challenges will remain undiscovered. In addition, our status as the world's most innovative nation and our ability to compete globally will be imperiled in an atmosphere of reduced research and development funding."



Dr. Ali Abedi (3rd from right) at the US Senate Reception among IEEE USA representative; President of IEEE USA, Russell Lefevre (2nd from right) was also among participants.

ECE Students Chosen for NASA Research Internships

Three ECE undergraduate students have been selected by the Maine Space Grant Consortium (MSGC) for summer internships at NASA centers. Stephanie Duy, James Knarr and Fred Schwaner will spend this summer at NASA file centers to conduct research in cutting edge wireless technology for next generation of space vehicles.

Funded by NASA through a MSGC workforce development program, Stephanie Duy of Caribou will join the research team at the Jet Propulsion Laboratory (JPL) in Pasadena, California to work on the next generation of Voice Over IP (VoIP) systems for future exploration vehicle.



Stephanie Duy

James Knarr

Fred Schwaner

James Knarr of Carmel and Fred Schwaner of Hebron will be working at the Johnson Space Center (JSC) in Houston, Texas on wireless sensor network design for next generation of space telescope. All three students are juniors who now work as research assistants in UMaine's WiSe-Net lab, under the direction of Assistant Professor Ali Abedi.

Dr. Abedi says he hopes the unique research opportunities will inspire his students to pursue graduate-level studies at UMaine, and perhaps join him in his ongoing NASA-funded research into battery-free wireless sensors for use in space and other harsh environments.

Congratulations to the 2008 Graduating Class!

This May we had 23 graduates of which 16 have accepted employment and 7 are going on to graduate schools. The ECE graduating students were inducted into the Francis Crowe Society on May 10 at a college ceremony that was also attended by family members, distinguished inductees, and faculty. After the ceremony, family and friends gathered in the new Engineering and Science Research Building for a luncheon. The picture below shows part of this gathering.



Left to Right: Nathan Bourgoin, Krisjand Morgan, Jason Withee, Aron Semle, Andrew Quirk, Christopher Houle, Jacob Callnan, Christopher Wilson, Carl Hansen, Andrea Eaton, Daniel Blackmer, Heidi Purrington, Daniel Marstaller, Walter Duy, George Maalouf, Adam Tibbetts, Brian Tomassetti



Gifts/Donations

Maine Community Foundation for Robert N. Haskell and Gladys M. Stetson Fund, \$8,000 for Bangor Hydro Summer Co-op.

Grants Received

N. Emanetoglu, "DURIP: Instrumentation for RF Photonics Laboratory at the University of Maine," \$125,715, March 31.

Other

Since April the faculty have submitted six proposals for a total of about \$25,210,000.