ECE Departmental Award Winners

On Friday, May 4th, during the Graduating Student Banquet, several top students in Electrical and Computer Engineering were recognized, as were the best EE and CpE teachers for the academic year 2011/2012.

**Prof. James E. Powers Award (Highest Academic Achievement)**
Bonie T. Rosario (Computer Engineering)

**Prof. Carl A. Stevens Award (Highest Academic Achievement)**
John J. Foley (Computer Engineering)

**HKN (Eta Kappa Nu)**
Bonie T. Rosario (Computer Engineering)

**Outstanding Graduate Students**
Sanping Li (Computer Engineering)
Nan Wu (Electrical Engineering)

**Undergraduate Research Awards**
Katherine A. Aho (Electrical Engineering)
Scott A. Wilson (Electrical Engineering)

**Dean's Gold Medal for Highest Academic Achievement**
**Computer Engineering**
Undergraduate: Bonie T. Rosario
Graduate: Dongchao Xu

**Electrical Engineering**
Undergraduate: Khalid Kanane
Graduate: Rachel E. Wakim, Osman K. Ekekon

**Outstanding Teacher Award**
Michael Geiger (Computer Engineering)
Oliver Ibe (Electrical Engineering)

**Prof. Ziyad Salameh Presents Keynote Address**

Professor Ziyad Salameh was the keynote speaker at the 2011 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), held at the University of Jordan from December 6-8. The topic of Professor Salameh’s talk was “Vehicle to Grid Technology (V2G).” This international conference provides a unique forum to discuss practical approaches and state of the art findings in using applied electrical engineering and computing technologies to solve national problems that face Jordan and other developing countries.
Prof. Yan Luo Judges Boston FIRST Robotics Competition

Professor Yan Luo served on the judges’ panel of the 2012 Boston FIRST robotics competition, held at Boston University on March 23-24. The largest robotics competition in Boston, FIRST works with mentors in business, education and government to make science as cool as sports.

FIRST (For Inspiration and Recognition of Science and Technology) was founded in 1989. Based in Manchester, NH, the charity designs programs to motivate young people to pursue science, technology, engineering, and math opportunities, while building confidence, knowledge, and life skills.

The Boston FIRST competition’s 2012 theme was “Rebound Rumble,” a game played by two competing alliances on a flat, 27 x 54 foot field. Each alliance consists of three robots that compete to score as many basketballs into their hoops as they can during a 2 minute, 15 second match, with higher hoops worth more points. 53 teams from four countries (US, Canada, Mexico, Turkey) participated in this year’s competition.

Prof. Luo served on the 19-member judges’ panel, which also consisted of MIT faculty members and robotics startup executives. They watched the games played by enthusiastic students and evaluated the teams for awards based on creativity, quality, and teamwork.

More information is available at http://www.bostonfirst.org/

Prof. Kanti Prasad Recognized by ASEE

Professor Kanti Prasad was recently recognized with two awards from the American Society for Engineering Education (ASEE)—the “Best Teacher Award for the Northeast Section” and the “Best Campus Representative for Zone 1.”

Prof. Prasad served as Vice Chair of the ASEE NE Section Conference at UMass Lowell on April 27-28. The conference had 388 attendees, including nearly 200 students. Prof. Prasad’s role included securing conference sponsorship from Analog Devices and Goodrich.

Prof. Alkim Akyurtlu Receives $650k AFOSR Grant

Professor Alkim Akyurtlu recently received a new grant as sole PI from the Air Force Office of Scientific Research (AFOSR). The title of the grant is, “Homogeneous Negative Refractive Index Materials with Parametric Loss.”

This grant, which covers the period May 1, 2012 to April 30, 2015, provides $650,399 in funding for Prof. Akyurtlu’s research.
Recent ECE Publications

ECE Department faculty members and their students recently published the following journal and conference papers:

Professor Martin Margala


Professor Samson Mil’shtein


S. Mil’shtein and J. Palma, "FinFET with Constant Transconductance", Microelectr. and Solid State Electr.accepted volume 3, May, (2012),


S. Milshtein, and L. Devaraconda "Design of SiC MESFET with Constant Gm " accepted , Intern. Conf. on Physics of Semiconductors. ICPS-2012

Professor Ziyad Salameh


Professor Xingwei Wang


Graduate Student Profiles: Outstanding Graduate Student Award Winners

For this newsletter issue, we present profiles of this year’s Outstanding Graduate Student Award winners:

Sanping Li, our award winner in Computer Engineering, has worked with Professor Yan Luo on sponsored research projects since Fall 2008. He advanced to PhD candidacy in Spring 2009. His recent work has focused on real-time network traffic classification with machine-learning algorithms and acceleration of these algorithms through multicore and application specific processors.

Since he joined UMass Lowell, Sanping has published four peer-reviewed research papers in top ranked ACM/IEEE conferences in the computer architecture and network areas, including a Best Paper Award winner in the computer architecture track of the IEEE NAS conference in 2010. He was awarded a travel grant to the NSF GENI Engineering Conference in 2009. He has also contributed to two of Prof. Luo’s grant proposals.

Nan Wu, our award winner in Electrical Engineering, joined the research group of Professor Xingwei Wang as a Research Assistant in 2008. His doctoral research focuses on the study of a fiber optic ultrasonic transducer using photoacoustic principle; he defended his dissertation proposal this past January.

Nan’s publications include one first author journal paper in one of the highest impact journals in his research area. He has also published ten first author conference papers, as well as co-authored six peer-reviewed journal articles and eleven conference papers. He is also a co-inventor on two patents. Nan has presented seven talks at SPIE conferences, including SPIE Defense Security and Sensing, and SPIE Smart Structures and Materials & Nondestructive Evaluation and Health Monitoring.

Nan received the Professional Development Award from the Graduate Student Association of UMass Lowell in 2010, and the NSF Student Scholarship for an ANCIrSST short course in 2009.

Ph.D. Qualifier Changes

An important note for doctoral students: the format of the ECE Ph.D. Qualifying Exam has changed. For more details on these changes, please go to http://www.uml.edu/ecegrad and read the appropriate section of the Doctoral Handbook.
Recent Ph.D. Defenses

Congratulations to the following students, who recently defended their Ph.D. dissertations:

Dr. Ashok Solanki (adviser: Prof. Kanti Prasad) successfully defended his dissertation on March 22nd. His research focus was BIST and BIC for Advanced MEMS Devices with a special testing methodology using electrical stimulus. Ashok started at Analog Devices on April 2 as a Design & Test Engineer in the Advanced Development Group.

Dr. Kemal Kulovic successfully defended his dissertation, “New Embedded Test Methods for Systems-on-Chip,” on April 17. His Ph.D. committee consisted of his adviser, Prof. Martin Margala, Prof. George Cheney, and Prof. Gordon Roberts, his external examiner from McGill University.

AETC News and Notes

First, a humorous look at two very important events:

Winter months are known to bring pandemics of flu and other viruses. However, this past December, some AETC students were bitten by a new “virus,” as they did marry one after another. The potential negative impact of these events is easy to evaluate. At first, the married student loses his interest to do research and any other activities. With time, the individual’s analytical ability degrades, but, after two months, this ability slowly returns and the “thermodynamic equilibrium” settles. These facts are statistically proven, and academic supervisors should take these situations into account.

In the month of December, two AETC graduate students, Anup Pillai and Vishal Kunnil, were married in a span of 10 days. For that, both Anup and Vishal spent two years of RA assistantship money to impress their brides and to travel to India. On behalf of AETC faculty and staff, we wish each of these two young families a long, happy life together and, most of all, love and harmony.

Other AETC news of note:

- In January, Dr. John Palma, who graduated in Spring 2011, was hired as a Lecturer in the ECE Department. Dr. Palma joins Professor Joel Therrien as AETC alumni currently working in the department.

- In February, AETC undergraduate student Scott Wilson was accepted to the School of Electrical and Computer Engineering at Cornell University.

- In March, former AETC graduate student Paula Bustos, who is now an engineer with the Leadership Program at BAE, was nominated for an achievement award by AMES.