Fall 2015 Newsletter

Dear Colleagues and Friends,

We are pleased to share exciting news of the ECE Department, as the 2015-2016 academic year moves into full swing. Our campus in autumn is brimming with the energy of our students, and our faculty, staff and alumni continue their commitment to raise the Department to even greater heights. While 2015 marks the 150th Anniversary Celebration of Lehigh University, ECE is planning to celebrate our own anniversary, and reflect on the extraordinary legacy set by Lehigh ECE graduates. Although electrical engineering was taught at Lehigh since 1884, our four-year EE program was initiated in the 1888-1889 academic year, making 2017 the 125th anniversary of Lehigh’s first EE graduating class. Stay tuned as we prepare to celebrate this momentous occasion! Our talented faculty and staff continue to drive innovation in research and teaching, and we are all inspired by the enthusiasm shown by our students as they prepare to meet the complex challenges of the 21st Century. We welcome new faculty members, Xiaochen Guo, Wenxin Liu, and Jonathan Wierer, who bring new strengths to Lehigh in electric energy, nanoelectronics, photonics, computer memories, embedded systems, and the internet of things. Please read of the impressive accomplishments of our faculty and students in this newsletter. The ECE Department continues to invest in our undergraduate students, who are growing in number and are vital to our success. We invite our alumni to connect to our students and faculty, help us to improve our program, and support ECE in any way that is meaningful to you. Thank you for your continuous support and your belief in the mission of ECE at Lehigh.

J. Bratell

New Faculty

Xiaochen Guo, Ph.D.
Professor Guo’s research interests include leveraging resistive memories to build energy-efficient processors, memory systems and accelerators.

Wenxin Liu, Ph.D.
Professor Liu focuses his research on advanced controls of power systems and power electronics system in his Smart Microgrid and Renewable Technology (SMRT) lab.

Jonathan Wierer, Ph.D.
Professor Wierer’s research focus is on semiconductor device physics and semiconductor materials science, specifically electronic and optoelectronic devices with III-nitride semiconductors.

Department News

Zhou and Colleagues Pace a Fly’s Heart with a Laser

Chao Zhou, assistant professor of electrical and computer engineering, and colleagues have invented an optogenetic pacemaker that works on fruit flies in various stages of development. The research, presented in the journal Science Advances, will allow scientists to conduct future extended cause and effect studies, and marks the first time a Lehigh professor has been published in this journal.

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Cybersecurity researchers enlist to protect power grid

Researchers in Lehigh’s Integrated Networks for Electricity research cluster are part of a new center that aims to develop new technologies to protect the nation’s power grid from cyber attacks. The center is made possible by a $12.2 million grant to Lehigh and four other universities from the U.S. Department of Energy (DOE). Read More

A superlattice to generate the elusive terahertz wave

Assistant professor Sushil Kumar is using his NSF CAREER Award to study the terahertz radiation, a portion of the EM spectrum that promises advances in areas as diverse as atmospheric science, astronomy, cancer research, drug detection, DNA sensing, cell biology and nondestructive testing of pharmaceuticals. Read More

Research Highlights

Zhou & Berdichevsky Awarded NIH Grant for Ultrafast Optical Imaging Technology Full Story

Yan Awarded NSF Grant for Work on Error Correction Coding Full Story

Tansu Wins NSF Grant for a New Class of Semiconductors for Solid State Lighting Full Story

Lehigh ECE Receives GAANN Award to Increase Diversity in Ph.D. Program Full Story

Zhou Receives NIH Grant for Research on Optogenetic Pacemaker Full Story

Student Spotlight

Eta Kappa Nu Chi Chapter Inducts New Members

After a dormancy of 19 years, Lehigh’s Eta Kappa Nu (HKN) chapter is experiencing a renaissance thanks to determined effort from electrical engineering undergraduate students. On Friday, November 13, HKN Chi Chapter inducted eight new underclass students to continue the momentum of the revival. Read More

Calling all alumni! We’re beginning the countdown to our 125th Anniversary in 2017 and we want to feature YOUR stories! Contact us to let us know what you’ve been up to since your years at Lehigh.