



Internet of Things: Trends and Applications for Home Automation

Speaker: Prof. Lei He (UCLA)

Date: Friday October 2, 2015 at 11 am

Location: Donald Bren Hall 6011

Host: Eli Bozorgzadeh

Abstract: Internet of things (IoT) is viewed as the third wave of the internet, after the computer based internet and the mobile networking. The talk will first discuss trends of IoT and then present two examples of IoT. The first example is a WiFi watering controller, which is able to reduce up to 50% water consumption by leveraging cloud-based weather prediction and watering expert system. The second example is a smart air conditioner, which may perform localized cooling around occupants rather than cooling the entire room or building and leads to tremendous energy reduction for large office and residential space.

Biography: Lei He is a professor at UCLA electric engineering department and the director of Clean Energy Research Center at UCLA. He consulted Cadence Design Systems, Cisco, Hewlett-Packard, Intel, and Synopsys, and was a technical advisory board member to found Apache Design Solutions (acquired by AnSys) and Rio Design Automation (acquired by Magma Design Automation). He was the chief scientist for EmPyrean Soft (a leading EDA company in Asia) and Pride Power Systems (an EV startup), and is a co-founder of Silicon Cloud International, a cloud computing company and NxEco, a smart home company in Newport Beach.

Dr. He obtained Ph.D. degree in computer science from UCLA in 1999. His research interests include modeling and simulation, hardware and software systems, and cyber physical systems for water and energy efficiency, clean energy, clean transportation, and wireless health. He has published one book and over 200 technical papers with many best paper nominations and awards, including the 2010 ACM Transactions on Electronic System Design Automation Best Paper Award for his work on 3D IC and 2011 IEEE Darlington Award for his work on low power multimedia communication.