EE 298-12
Solid State Technology and Devices Seminar
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1-2 pm in the Hogan Room
(521 Cory)

Graphene Nanoelectronics and Nanophotonics

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Carbon nanomaterials, such as graphene and carbon nanotubes, offer unparalleled opportunities for next generation electronic and optoelectronic devices which not only have smaller sizes but often exhibit unique functionalities. The research in our group aims at exploiting material properties and device applications enabled uniquely by these low dimensional carbon nanomaterials. In this talk, I will discuss our group's recent works on these fascinating nanomaterials. Topics will include: 1) synthesis of wafer scale homogeneous bilayer graphene films; 2) investigation of photocarrier generation and extraction on graphene optoelectronic devices using scanning photocurrent spectroscopy; 3) all-graphene based flexible and transparent circuits for digital modulation; 4) high frequency carbon nanoelectronic sensors.

Zhaohui Zhong received his B.S. and M.S. in Chemistry from Nanjing University (China) in 1998 and 2000, and his Ph.D. in Chemistry from Harvard University in 2005. From 2005 to 2008, he was a postdoctoral associate at Cornell Center for Nanoscale Systems. He joined the faculty of EECS at the University of Michigan in August, 2008. He is a recipient of MRS graduate student award (2005), ACS Petroleum Fund Doctoral New Investigator (2011), and NSF CAREER award (2013). His research lies on the frontiers of nanoelectronics and nanophotonics, and has been cited for more than 2500 times.