
TCSUH Bi-Weekly Seminar

Rubbery electronics: making rubber into a piece of integrated circuits



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Room 102, Houston Science Center

12:00 p.m. – 1:00 p.m.

RSVP by Wednesday: cblake3@central.uh.edu

ABSTRACT: Seamlessly merging electronics with biology is of imminent importance in addressing grand societal challenges in health and joy of living. However, the main challenge lies in the huge mechanical mismatch between the current form of rigid electronics and the soft curvy nature of biology. In this talk, I will present a new type of electronics, namely “rubbery electronics”, with tissue-like softness and stretchability, which is constructed all based on elastic rubbery electronic materials. The hope is that rubbery electronics could ultimately solve the challenge in seamless integration between biology and electronics. The rubbery electronic materials and device innovations set a foundation for rubbery electronics. Fully rubbery transistors, logic gates, integrated electronics, sensors, smart skins, medical implants, and neurologically integrated function systems will be demonstrated.

BIO: Dr. Cunjiang Yu is an Associate Professor of Mechanical Engineering at the University of Houston. He completed his Ph.D. in Mechanical Engineering at Arizona State University in 2010 and was trained as a postdoc at the University of Illinois at Urbana-Champaign before joining the University of Houston in 2013. Dr. Yu is a recipient of NSF CAREER Award, ONR Young Investigator Award, MIT Technology Review Top Innovators, SPIE DCS Rising Researcher, SME Outstanding Young Manufacturing Engineer Award, AVS Young Investigator Award, ACS Petroleum Research Fund Doctoral New Investigator Award, 3M Non-Tenured Faculty Award, etc.

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