

NEURAL ENGINEERING SEMINAR SERIES

Wireless Hybrid Electrical-Acoustic Systems for Body-Machine Interface

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W306 Millennium Science
Complex



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ABSTRACT:

In this talk, I will present our recent efforts towards the development of advanced minimally invasive body-machine interfaces (BMIs) for modulating and sensing neural and electrophysiological activities with high spatiotemporal resolution at large scale. These BMIs are enabled by innovative integrated circuits, ultrasound, and wireless power/data (with different modalities such as ultrasound and magnetoelectric) technologies.

BIOGRAPHY:

Dr. Kiani received his Ph.D. degree in Electrical and Computer Engineering from the Georgia Institute of Technology in 2014. He joined the faculty of the School of Electrical Engineering and Computer Science at the Pennsylvania State University in August 2014 where he is currently an Associate Professor. His research interests are in the multidisciplinary areas of analog, mixed-signal, and power-management integrated circuits; ultrasound; and wireless power/data transfer and energy harvesting for wireless implantable medical devices and neural interfaces.