UCF DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCEINCE

Summer 2015 Seminar Series

Presented by the ECE Division

POWER MANAGEMENT CIRCUITS FOR PIEZOELECTRIC ENERGY HARVESTING

MONDAY JUNE 29, 2015

11:00 AM – HEC 450

The most popular transducers for vibration energy harvesting are piezoelectric (PZT) (lead, zicronate, and titanate) cantilevers, which offer high energy density, good scalability, and various shapes. The power conditioning circuit for a piezoelectric generator needs a maximum power point tracking (MPPT) to maximize the power transfer, while minimizing power consumption of the circuit. The presentation focuses on our research endeavors for power management circuits for vibration energy harvesting.

DR. DONG S. HA

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Dong Ha received a B.S. degree in electrical engineering from Seoul National University, Korea, in 1974, and M.S. and Ph.D. degrees in electrical and computer engineering from the University of Iowa, in 1984 and 1986, respectively. Since fall 1986 he has been a faculty member in the Department of Electrical and Computer Engineering at Virginia Tech. Currently, he is Professor and Director of the Multifunctional Integrated Circuits and Systems group. Professor Ha is also a member of Center for Energy Harvesting Materials and Systems at Virginia Tech. His group conducts research in power management circuits and systems for energy harvesting, transceiver design for high-speed optical communications, and high temperature RF ICs for harsh environment communications. He is a Fellow of the IEEE.

Hosted by: Dr. Jiann-Shiun Yuan, NSF MIST Center Director

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