

IMPLANTABLE WIRELESS MEDICAL DEVICES AND SYSTEMS



Date & Time:

September 24, 2013
11:30am - 12:30pm

Location:

Case Western Reserve University
White Building
Room 411
Cleveland, OH 44106

Admission:

Free and refreshments will be served

Who Is Invited?

Anyone interested in this topic

CPD

One (1) CPD Hour Available
Bring your flyer for credit

The **IEEE Microwave Theory and Techniques (MTT) Cleveland Chapter** and the IEEE Cleveland Section are sponsoring the MTT Distinguished lecturer Dr. J. C. Chiao. All are invited to join us for a technical talk and networking opportunity. Refreshments will be served.

Abstract:

The presentation focuses on the development of wireless micro devices and systems for medical applications at UT-Arlington. They are based on technology platforms such as wireless energy transfer for batteryless implants, miniature electrochemical sensors, nanoparticle modified surfaces, MEMS devices and wireless communication. An integrated wireless body network for chronic pain management will be discussed. The system provides a wireless closed loop for neurorecorders to recognize pain signals and neurostimulators to inhibit pain. Batteryless endoluminal sensing telemeter architecture will also be discussed with an esophagus implant for remote diagnosis of gastroesophageal reflux disease (GERD), an endoscopically-implantable wireless gastro-stimulator for gastroparesis management, and a wireless bladder volume monitoring implant for urinary incontinence management. These applications enable new medicines to improve human welfare and assist better living.

Speaker:

J.C. Chiao is Greene endowed professor and Garrett endowed professor of Electrical Engineering at University of Texas – Arlington; and an Adjunct Associate Professor in the Internal Medicine Department at UT-Southwestern, Medical Center.

Dr. Chiao received the 2011 O'Donnell Award in Engineering presented by The Academy of Medicine, Engineering and Science of Texas (TAMEST). He also received the 2011 Tech Titan Technology Innovator Award; 2011 Lockheed Martin Aeronautics Excellence in Engineering Teaching Award; 2012 Research in Medicine milestone award by Heroes of Healthcare; and 2012 IEEE Region 5 Outstanding Engineering Educator award. His webpage is at <http://www.uta.edu/faculty/jcchiao/>



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This is to certify that _____ attended this seminar. Certified by _____. Certificates of attendance and other evidence of CPD activity should be retained by the attendee for auditing purposes.