**“Microwave Technologies for Personal Health Care Devices”**

## IEEE MTT/AP Orlando Chapter Meeting

## **DATE/TIME: Tuesday, Sept. 8th, 2015 (11:00AM-12:00 PM)**

**SPEAKER:** Dr. Chin-Lung Yang

National Cheng Kung University, Tainan, Taiwan

**ABSTRACT:**

 The demand for health care are growing rapidly. In the study of personal health care, mobile health care (m-Health) and health care cloud are top of the fastest growing areas. As technologies continue to progress, tiny biomedical sensors, compact implantable antennas, and low power wireless communication are rapidly developing. Users can use implantable devices to monitor their daily conditions every day. This presentation addresses microwave technologies involved in implantable systems and applications. An intelligent integrated implant teeth device is proposed for monitoring physiological systems. Related technological developments of dental antennas, integrated circuits, and temperature-insensitive transmitters are presented. All of these microwave technologies promise an easy-health life for human beings.

**BIOGRAPHY:**

Dr. Chin-Lung Yang received his Ph.D. degree in Electrical and Computer Engineering from Purdue University, W. Lafayette, IN, USA, in 2007. After one year of postdoctoral work in the IDEAS Laboratory at Purdue University, he joined the faculty of Electrical Engineering at National Cheng Kung University, Tainan, Taiwan, where he is currently an associate professor. He established the Wireless Innovative System EM-applied (WISE) Laboratory in 2008. His research focuses on RF biomedical applications, energy harvesting, integrated RF front-ends, RFIC, diversity design, RF powering techniques, wireless sensor networks (WSN), implantable antennas, and flexible electronics.

Dr. Yang was sponsored by the National Science Foundation (NSF), USA during his PhD research from 2003 to 2006. Ministry of Science and Technology (MOST), Taiwan has sponsored his advanced research on Microwave and biomedically applied topics from 2008 to 2016. From 2010 to 2012, he was the recipient of Pilot Overseas Internship Grants from the Taiwanese Government. He won Best GOLD Member Award, IEEE Tainan Section, 2012 and the Future Star Project Award, from EECS in National Cheng Kung University, 2013. He won the Teaching Excellence Award from National Cheng Kung University in 2014 and advised several graduate students who won Thesis Awards during 2012 and 2015. He actively serves as a TPC member, a reviewing committee member, a session convener, a session chair in several major international conferences.

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| **LOCATION: University of Central Florida****HEC 356** | **Organizer: Dr. Xun Gong and Tianjiao Li****(407)797-0656, scarlettlee96@gmail.com**  |

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