香港城市大學 City University of Hong Kong

Department of Electronic Engineering

毫米波國家重點實驗室 State Key Laboratory of Millimeter Waves

IEEE (HK) Section AP/MTT

Seminar on

Antennas and Wireless Power for Biomedical and Healthcare Applications

by

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National University of Singapore, Singapore

Abstract
Wireless power and data telemetry technologies for biomedical and healthcare applications have received a lot of attention recently. Numerous applications in medical diagnostics and therapeutics ranging from cardiac pacemakers to emerging devices in visual prosthesis, brain computer interfaces and body area networks have spurred engineers to propose new wireless medical devices. In the meantime, the ageing population poses many challenges to healthcare systems, especially on chronic illness management. In this talk, I would mainly cover our recent research progress on wearable/implantable antennas and wireless power for various biomedical applications. In addition, I would also briefly introduce my other research activities including millimeter-wave antennas and MMIC device modeling and designs.

Biography
GUO Yongxin received his Ph.D. degree from City University of Hong Kong in 2001. From September 2001 to January 2009, he was with the Institute for Infocomm Research, Singapore, as a Research Scientist. He moved to the Department of Electrical and Computer Engineering (ECE), National University of Singapore (NUS) in Feb 2009 as an Assistant Professor and was promoted to an Associate Professor with tenure in Jan 2013. He is also Director of Center for Microwave and Radio Frequency at the Department of ECE of NUS. Concurrently, He is a Senior Investigator at National University of Singapore Research Institute (NUSRI) in Suzhou, China and Director of Center of Advanced Microelectronic Devices (CAMD) at NUSRI. He has authored or co-authored 122 international journal papers and 128 international conference papers. Thus far, his publications have been cited by others more than 1040 times (source: Scopus). He holds one Chinese Patent and one U.S. patent. His current research interests include microstrip antennas for wireless communications, implantable/wearable antennas and body channel modeling for medical applications, wireless power and RF energy harvesting, microwave circuits, and MMIC modeling and design.

Dr Guo is the General Chair for IEEE MTT-S International Microwave Workshop Series 2013 on “RF and Wireless Technologies for biomedical and Healthcare Applications" (IMWS2013-Bio) in Singapore and served as a Technical Program Committee (TPC) co-chair for IEEE International Symposium on Radio Frequency Integration Technology (RFIT2009). He is serving as an Associate Editor for IEEE Antennas and Wireless Propagation Letters. He was a recipient of the Young Investigator Award 2009, National University of Singapore. He is also the recipient of the Senior Award of the 2013 “Raj Mittra” Travel Grant (RMTG).

Date : 17 Jun., 2013 (Monday)
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City University of Hong Kong

***** ALL ARE WELCOME *****

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