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Department of Electronic Engineering
The Chinese University of Hong Kong

RF in Medicine: Current Status and Future Directions of Antennas and Wireless Power

by

Dr Yongxin Guo

Associate Professor of National University of Singapore, Singapore

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Time: 4:30 p.m.

Venue: Rm 418 Ho Sin Hang Engineering Bldg., CUHK

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 electronic 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 biomedical applications. A few related ongoing biomedical projects for on-body and in-body applications will be addressed. In addition, I would also briefly introduce my other related research activities.

Biography



Yong-Xin Guo 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 joined the Department of Electrical and Computer Engineering, National University of Singapore (NUS), as an Assistant Professor in February 2009 and was promoted to a tenured Associate Professor in Jan 2013. He has authored or co-authored 203 international journal papers and 200 international conference papers. Thus far, his publications have been cited more than 6200 times and the H-index is 44 (source:

Google Scholar). He holds 8 granted/filed Patents in U.S. or China. His current research interests include antennas for wireless communications and biomedical applications, wireless power for biomedical and IoTs, and MMIC modelling and design. He has graduated 11 PhD students at NUS.

Dr Guo was the General Chair/Co-Chair for AWPT 2017, ACES-China 2017, IEEE IMWS-AMP 2015 and IEEE IMWS-Bio 2013. He served as a Technical Program Committee (TPC) Co-Chair for IEEE IMWS-AMP 2017 and RFIT2009. He is serving as Associate Editors for IEEE Journal of Electromagnetics, RF and Microwave in Medicine and Biology, IEEE Antennas and Wireless Propagation Letters, and Electronics Letters. He was a recipient of the Young Investigator Award 2009, National University of Singapore. He received 2013 Raj Mittra Travel Grant Senior Researcher Award. He is an IEEE Fellow.

***** All are welcome to attend *****

For inquires, please contact Prof. K.L.WU, Tel. No. 3943 8287