



THE CHINESE UNIVERSITY OF HONG KONG
Department of Electronic Engineering
Seminar



**Design of Compact and
Wide-Band Antennas**

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Date: 26 Mar 2024 (Tuesday) ~~27 Mar 2024 (Wednesday)~~

Time: 1:30 p.m. ~~2:00 p.m.~~

Place: Rm 418, Ho Sin Hang Engineering Building, CUHK

Abstract

Recent years have witnessed the growing demand for more wireless connectivity and services. This has posed a big challenge for antenna engineers, which is to design wide-band or multiband antennas with very small footprint. The paradox of achieving wide-band operation while retaining a compact antenna size appears difficult to resolve. This talk takes a careful look at this contradicting challenge and proposes several strategies to address the difficulty. First, we review the fundamental concepts for achieving antenna's wide-band operation. We then introduce techniques for effectively miniaturizing an antenna's size while maintaining its wide-band operation. After that, a number of practical examples are presented to demonstrate the design of compact and yet wide-band antennas.

Biography

Prof. Zhongxiang Shen received the B. Eng. degree from the University of Electronic Science and Technology of China, Chengdu, China, in 1987, the M. S. degree from Southeast University, Nanjing, China, in 1990, and the PhD degree from the University of Waterloo, Waterloo, Ontario, Canada, in 1997, all in electrical engineering.

From 1990 to 1994, he was with Nanjing University of Aeronautics and Astronautics, China. He was with Com Dev Ltd., Canada, as an Advanced Member of Technical Staff in 1997. He was a Postdoctoral Fellow with Harvard University and the University of Michigan in 1998. From Jan. 1999 to December 2023, he was with Nanyang Technological University (Assistant, Associate and Full Professor). He is now a Strategic Scientist at Yangtze Delta Region Academy of Beijing Institute of Technology, China.

Dr. Shen served as an AdCom member of IEEE AP-S from Jan. 2010 to Aug. 2019. He served as an Associate Editor of the IEEE Transactions on Antennas and Propagation from July 2016 to July 2022. Prof. Shen is currently the Editor-in-Chief of IEEE Open Journal of Antennas and Propagation.

Prof. Shen is an IEEE Fellow. His research interests include small and planar antennas for various wireless communication systems, analysis and design of frequency-selective structures and absorbers, hybrid numerical techniques for modeling RF/microwave components and antennas. He has authored more than 240 journal papers and nearly 200 papers at international conferences.

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

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