

Title: Compact Microstrip Resonating Cell and Its Applications

Speaker:

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Time: 10:00 am

Venue: Room 603, Chow Yei Ching Building

Abstract:

The CMRC, known as Compact Microstrip Resonating Cell is a kind of Electromagnetic Band Gap (EBG) structure on microstrip line which exhibits slow wave and bandstop characteristics. Since the invention of the CMRC, it has found wide applications in many microwave components such as oscillator, mixer, power amplifier, low noise amplifier, frequency doubler, power divider, filter, and even antenna. The evolution of CMRC from 3-D and 2-D EBG will be introduced. Application examples of CMRC in various microwave components and antennas will be given.

Biography of the speaker:

Quan Xue received the B.S., M.S., and Ph.D. degrees in electronic engineering from the University of Electronic Science and Technology of China (UESTC), Chengdu, China, in 1988, 1990, and 1993, respectively.

In 1993, he joined the UESTC, as a Lecturer. He became an Associate Professor in 1995 and a Professor in 1997. From October 1997 to October 1998, he was a Research Associate and then a Research Fellow with the Chinese University of Hong Kong. In 1999, he joined the City University of Hong Kong where he is currently a Professor and serves as the Deputy Director of State Key Laboratory (Hong Kong) of Millimeter-waves of China, and the Assistant Head, Department of Electronic Engineering. Since May 2004, he has been the Principal Technological Specialist of

the State Integrated Circuit (IC) Design Base, Chengdu, China. He has authored or co-authored over 180 internationally referred journal papers and over 60 international conference papers. His current research interests include microwave passive components, active components, antenna, microwave monolithic integrated circuits (MMIC), RFID and radio frequency integrated circuits (RFIC) etc.

Dr. Xue is now the associate Editor of IEEE Transactions on Microwave Theory and Techniques, the associate Editor of IEEE Transactions on Industrial Electronics, and the Editor of International Journal of Antennas and Propagation. He is an elected member of IEEE MTT-S AdCom, the Chair of IEEE Hong Kong Section AP/MTT Chapter. He was elected as an IEEE Fellow (2011) for contributions in microwave transmission line structures and integrated circuits.

Organizer: Dr. L. Jiang