

Seminar On

Research on the Wideband CP, Reconfigurable and Mm-wave/THz Dielectric Resonator Antennas

By

Dr. Bin Li

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Time : 5:00 pm – 6:00 pm

Venue : Room 15-202, meeting room of State Key Laboratory of Millimeter Waves, 15/F, Lau Ming Wai Academic Building, City University of Hong Kong

Abstract

Over the past three decades, dielectric resonator antennas (DRA) have received widespread attention due to their low cost, low loss, and wide bandwidth, etc. A lot of researches on DRA have been focused on broadband, miniaturization, circular polarization and antenna array, while the work on more advanced DRAs are relatively limited. In this talk, the design of some recently developed high performance DRAs and its arrays will be discussed. First, the quadrature-fed hybrid-mode wideband CP DRAs will be introduced. It is found that a miniaturized wideband CP DRA of 3-dB AR bandwidth up to 40% can be obtained. Second, both frequency and polarization reconfigurable DRAs by using commercially available varactors will be given. Finally, a wideband high-gain terahertz dielectric resonator reflectarray working at 220GHz will be discussed. It will be shown that the DRA and its arrays are able to have very good electric performance which is potentially useful in the future wireless application systems.

Biography

Bin Li was born in Tianjin, China. He received the B.Eng. degree from the Xidian University, Xi'an, China, in 2001, and the Ph.D. degree from City University of Hong Kong, in 2007, both in Electronic Engineering. He is currently an Associate Professor with the School of Information and Electronics, Beijing Institute of Technology, Beijing, China. In 2009, he was a Research Fellow in the State Key Laboratory of Millimeter Waves of City University of Hong Kong. Dr. Li has received Excellent Graduate Thesis in 2016 and 2018, respectively. His current research interests include Dielectric Resonator Antennas, Reflectarray/Transmitarray, Millimeter-wave/THz antennas. Dr. Li has published more than 50 papers on domestic and international journals and conferences. The total citation number is more than 200. Dr Li is a communication reviewer of National Nature Science Foundation of China. He is also the peer reviewer of some international journals include IEEE Transactions on Antennas and Propagation, IEEE Antennas and Wireless Propagation Letters etc.

*** ALL ARE WELCOME ***

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