

## Seminar On

### 3D Frequency Selective Structures: Concept, Analysis, and Design

By

Prof Bo Li

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**Date** : 29 January 2018 (Monday)  
**Time** : 02:30 pm – 03:30 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

Frequency selective surfaces have been studied over the past several decades, and they have evolved from simple designs to complex geometries known today. This evolution has been mainly driven by the increasingly stringent performance requirements of its recent applications, which has also been motivated by the significant improvements in analysis methods, computational tools, and fabrication technologies. Based on that, recently, a class of interesting structures, named as 3D frequency selective structures, has been reported, which are fundamentally different from the conventional surfaces. 3D frequency selective structures exhibit many superior performance features, and hence they deserve further research towards the realization of more practical applications.

In this talk, we first conduct a brief review of conventional frequency selective surfaces with a focus on understanding their operating principles, and identifying their advantages and limitations. After that, a design concept and a generalized equivalent circuit of 3D frequency selective structures are introduced. We will also talk about the state-of-the-art on this research topic, present new designs by our research group, and propose future explorations.

#### Biography

**Bo Li** was born in Hunan, China, in 1984. He received the B.S. and Ph.D. degrees both in communication engineering from Nanjing University of Science and Technology (NJUST), China, in 2006 and 2011, respectively.

From Nov. 2011 to May 2014, he was with Nanyang Technological University (NTU), Singapore, as a Research Fellow. From Jul. 2017, he spent six months with the Faculty of Science and Technology, University of Macau, China, as Post-Doctoral Fellow. Since June 2014, he joined Nanjing University of Posts and Telecommunications (NJUPT), China, and has been a Professor in the School of Electronic and Optical Engineering, NJUPT, since July 2015. He has authored or co-authored more than 60 papers in international journals and conference proceedings.

His research interests include RF/microwave power dividers and frequency-selective surfaces. Dr. Li is a Reviewer for the IEEE Transactions on Antennas and Propagation and IEEE Transactions on Microwave Theory and Techniques.

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

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