

### **SEMINAR**

# Department of Electronic Engineering The Chinese University of Hong Kong

## Surface Electromagnetics: Physics Exploration and Engineering Applications

by

## **Professor Fan Yang**

Professor at Tsinghua University

Date: 27 April 2018 (Friday) Time: 10:00 a.m.

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

#### **Abstract**

From frequency selective surfaces (FSS) to electromagnetic band-gap (EBG) ground planes, from impedance boundaries to Huygens metasurfaces, novel electromagnetic surfaces have been emerging in both microwaves and optics. Many intriguing phenomena occur on these surfaces, and novel devices and applications have been proposed accordingly, which have created an exciting paradigm in electromagnetics, so called "surface electromagnetics". This seminar will review the development of electromagnetic surfaces, as well as the state-of-the art concepts and designs. Detailed presentations will be provided on their unique electromagnetic features. Furthermore, a wealth of practical examples will be presented to illustrate promising applications of the surface electromagnetics in microwaves and optics.

# **Biography**



Fan Yang received the B.S. and M.S. degrees from Tsinghua University, and the Ph.D. degree from University of California at Los Angeles. Currently, he is a Professor at Tsinghua University and serves as the Director of the Microwave and Antenna Institute. Dr. Yang's research interests include antennas, surface electromagnetics, computational electromagnetics, and applied electromagnetic systems. He has published five books, six book chapters, and over 300 journal articles and conference papers. Dr. Yang served as an Associate Editor for IEEE Trans. Antennas Propagation, Associate Editor-in-Chief for Applied Computational Electromagnetics Society (ACES) Journal, and TPC chair of

2014 IEEE AP-S International Symposium. He was elected to ACES Fellow in 2018. He is an IEEE APS Distinguished Lecturer for 2018-2020.