Seminar on

Meta-Atoms for 3D printing Antennas

by

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Date : **22 February 2017 (Wednesday)**
Time : **11:00 am – 12:00 noon**
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

In this seminar, Prof Vardaxoglou will introduce the concept and uses of Meta-Atoms in Electromagnetic materials. 3D-printed multi-layered metamaterials with different periodicities of the metallic rectangular meso scale cuboid inclusions, termed here as meat-atoms. Potentially these meta-atoms could be varied in constitution and geometry to augment a variety of artificial magnetodielectric properties. The periodicity indicates the spaces between adjacent cuboids. The effect of the space on the effective EM properties is examined by placing the samples in a waveguide or on a resonator. It has been shown that reducing the spacing (periodicity) of the metallic rectangular cuboids increases the effective permittivity and loss tangent, but reduces the effective permeability.

Biography

Yiannis Vardaxoglou is the Head of the Wireless Communications Research Group (WiCR) researching wide-ranging topics applicable to cutting-edge wireless communications technology. His research focuses primarily on antennas, microwave and mm-wave engineering, and metamaterial structures, with income >£10M (300 publications). He has authored several book chapters and a pioneering book on Frequency Selective Surfaces. WiCR collaborates with many internationally leading companies and universities and is home to the internationally renowned Loughborough Antennas & Propagation Conference (currently in its 13th year).

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

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