ECE Speaker Series

Department of Electrical and Computer Engineering

Dr. Steven Gao

Professor and Chair of RF and Microwave Engineering
University of Kent, Canterbury, UK
IEEE AP-S Distinguished Lecturer

Low-cost small smart antennas for wireless communications

Smart antenna is the key technology for broadband satellite communications, terrestrial mobile communications (4G and 5G), radar and future Internet of Things. It can achieve electronically beam steering towards desired directions while forming nulls towards interferences. The traditional smart antennas are, however, very complicated, bulky and expensive, which make it difficult for civilian applications. For commercial applications, it is important to investigate novel smart antennas which can have small size, high efficiency and low cost. This talk will review the recent development of low-cost small smart antennas for terrestrial and satellite communications. Some case studies including low-cost small smart antennas for mobile terminals in terrestrial wireless communications, Ka-band smart antennas for satellite communications on the move, low-cost smart antennas for Ku-band satellite communications, etc, will be discussed. A conclusion will be given in the end.

October 31, 2016 at 10:00am in Engr Bldg 2, Rm W122

Steven Gao, PhD, is a Professor and Chair of RF and Microwave Engineering at the University of Kent, Canterbury, UK. Prior to joining Kent as a Professor in Jan. 2013, he was the Head of Satellite Antennas and RF System Group at Surrey Space Centre, University of Surrey (UK). His main areas of expertise are in antennas, smart antennas, phased arrays, MIMO, satellite antenna, RF/microwave/millimetre-wave/THz circuits and RF front ends (high-efficiency RF/microwave power amplifiers, filters), satellite communications, mobile communications, wireless power transfer, UWB radars, GNSS reflectometry, synthetic-aperture radars, remote sensing, electromagnetic modelling and small satellites.

Please contact Dr. David Jackson (djackson@uh.edu) if you would like to meet with the speaker.

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