



**THE CHINESE UNIVERSITY OF HONG KONG**  
Department of Information Engineering

*Seminar*

**White space with compressive sensing and geo-location  
database for M2M communications**

by

**Dr. Yue Gao**

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**Date : 28 May, 2015 (Thur.)**  
**Time : 11:00am – 12:00noon**  
**Venue : Room 833, Ho Sin Hang Engineering Building**  
**The Chinese University of Hong Kong**

*Abstract*

Machine-to-machine (M2M) technologies are expected to provide the underlying connectivity in the emerging Internet of Things (IoT). Various industries have recognized the importance of designing a reliable, ubiquitous and seamless connectivity technologies with very different success to date. The support from regulators on the TV white space (TVWS) spectrum for license exempt usage could potentially unleash M2M uptake. This talk will review the current progress on the TVWS regulation and techniques from the UK telecom regulator, Ofcom. The compressive sensing, geolocation database and its combination recently developed for TVWS will be discussed.

*Biography*

Dr Yue Gao (Frank) received his Bachelor degree from Beijing University of Posts and Telecommunications (BUPT) in 2002, his MSc and PhD in telecommunications and microwave antennas from Queen Mary University of London (QMUL) in 2003 and 2007, respectively. He is a lecturer at QMUL and the deputy director of MPI-QMUL Information System Research Centre. His research interests include TV white space, cognitive radio, software-defined radio and antennas for mobile and machine-to-machine (M2M) communications. He has authored and co-authored over 70 journal and conference papers, and holds 1 international patent and 2 licensed work to companies, and one book chapter. He has completed 5 reserach council and industry supported projects. Recent research grant on TV white space testbed is received from the Engineering and Physical Sciences Research Council (EPSRC). He is the official contact and voting member of ETSI, oneM2M, BSI and Weightless M2M standards. He has founded and chaired 1st and 2nd weM2M academic and industry workshop. He severs as reviewers for research councils such as EPSRC and Horizon 2020, and a number of prestigious IEEE and IET journals and conferences.

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