



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

**Thinking About 5G Network: Convergence of Terrestrial  
Broadcast Network and Mobile Broadband Network**

by  
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**Date : 22 Nov., 2017 (Wed.)**  
**Time : 11:00am – 12:00noon**  
**Venue : Room 1009, William M.W. Mong Engineering Building**  
**The Chinese University of Hong Kong**

*Abstract*

With the proliferation and diversification of mobile communication services, the current mobile broadband networks are under severe challenges. Thereinto, the progressive video service which will make up the majority of future network traffic has more demands of transmission bandwidth, network capacity and management flexibility. To meet these growing demands, a promising approach is to integrate broadcast network and cellular network. In this talk, I will introduce the features of the future 5G network and latest progress on broadcast network. Then some efforts on the convergence of broadcast network with cellular network made by broadcasting industry will be discussed. After that, several potential techniques in the hybrid network to achieve deeper convergence will be presented.

*Biography*

Dr. He received his B.S. degree from Tongji University, Shanghai, China, in 1999, and the Ph.D. degree from Shanghai Jiao Tong University, China, in 2009, both in electronic engineering. He is currently an associate professor in Cooperative Medianet Innovation Center (CMIC), Shanghai Jiao Tong University.

Dr. He's research is in the area of wireless communications and networks. He is particularly interested in problems of design and analysis related to physical layer(PHY). He did in-depth research on the field of synchronization, channel estimation, equalization and channel coding. He has published over 30 IEEE journals and conference papers on these topics, and applied for more than 50 important patents successfully. He was rewarded with the Second Prize of National Science and Technology Progress in 2008, the State Administration of Radio, Film and Television Awards for Science and Technology Innovation, the State Administration of Radio, Film and Television Awards for Outstanding Contribution to Science and Technology Innovation in 2010 and Wang Xuan Journalism Science and Technology Award in 2011.

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