



THE CHINESE UNIVERSITY OF HONG KONG
 Institute of Network Coding
 and
 Department of Information Engineering
Seminar



**A Flagship IoT R&D Project Under Infinitus: NTU Campus-Wide V2X
 Test-bed R&D Program for Future Intelligent Transportation System**

by

Prof. Peter H. J. CHONG
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Date : 8 January 2015 (Thursday)
Time : 10:00 - 11:00am
Venue : Room 833, Ho Sin Hang Engineering Building
The Chinese University of Hong Kong

Abstract

INFINITUS, the Infocomm Centre of Excellence, is a Research Centre under the School of Electrical and Electronic Engineering at the Nanyang Technological University (NTU), Singapore. INFINITUS was formed in the year 2011. The Centre brings together expert in the area of Information and Communication Engineering.

Recently, Infinitus received a research grant of over S\$10 million from Singapore government to build the first-of-a-kind in Asia a living test bed for vehicle-to-anything (V2X) communication in the NTU campus-wide network. This is the largest V2X test-bed with such full intelligent transportation systems (ITS) capability in the world within a university campus. The core technology in the campus-wide V2V network involves the deployment of 200+ road side units (RSUs) plus 100+ V2X enabled vehicles across the entire NTU campus.

In this talk, an overview of the V2X test-bed project will be given including the general architecture, key features, and ITS applications. The research topics involved with the project will be presented as well. In addition, some of the development and experiment conducted will be shown. The aim of the talk is to 1) share the experience and knowledge of setting up such a large-scale live V2X test-bed; 2) discuss about the challenges of future ITS R&D, and 3) seek for further collaboration between NTU and Hong Kong universities.

Biography

Dr. Peter H. J. Chong is a Director of INFINITUS, the Infocomm Centre of Excellence, in School of EEE, NTU. He is the Lead Principal Investigator of the V2X Test-bed Project. Dr. Chong received his Ph.D. degree in electrical engineering from the University of British Columbia, Canada, in 2000. Between July 2000 and January 2001, he worked in the Advanced Networks Division at Agilent Technologies Canada Inc., Canada. From February 2001 to May 2002, he was with the Radio Communications Laboratory at Nokia Research Center, Finland. Since May 2002, he has been with the School of Electrical and Electronic Engineering, Nan-yang Technological University, Singapore, where he is now an Associate Professor (Tenured). He was an Assistant Head of Division of Communication Engineering between July 2011 and June 2013. Since July 2013, he has been a Director of INFINITUS. He has visited Tohoku University, Japan, as a Visiting Scientist in 2010 and The Chinese University of Hong Kong (CUHK), Hong Kong, between 2011 and 2012. He is currently an Adjunct Associate Professor of CUHK. His research interests are in the areas of mobile communications systems including radio resource management, multiple access, MANETs, multihop cellular networks and green radio networks.

**** ALL ARE WELCOME ****