

### THE CHINESE UNIVERSITY OF HONG KONG

# Department of Information Engineering Seminar

## Network measurement and behavior analysis for cyber security by

Professor CAO Zigang School of Cyber Security

University of Chinese Academy of Sciences (CAS), China

**Date** : 7<sup>th</sup> June, 2018 (Thu.)

Time : 1:30pm

**Venue:** Room 833, Ho Sin Hang Engineering Building

The Chinese University of Hong Kong

#### Abstract

Cyber security has been a severe problem for states, enterprises, and individuals. Both researchers and engineers are facing a lot of public challenges in practice, such as cloud, CDN, high speed network, encryption, massive data and the fugitiveness of network behavior. In this talk, the speaker will introduce how to tackle some typical issues to support security analysis and applications from the perspective of network behavior. For instance, He will show how to measurement SSL/TLS and HTTP, and then find malicious behaviors through certificate mining, mismatch behavior and machine learning. The talk contains four works, namely SSL measurement and its security applications, encrypted traffic classification, HTTP measurement and malware propagation discovery, and protocol mimicry and evasion detection.

### **Biography**

CAO Zigang, associate professor of School of Cyber Security, University of Chinese Academy of Sciences (CAS), the 2017 youth star of the Institute of Information Engineering, CAS. Cao Zigang obtained his Ph.D. from Beijing University of Posts and Telecommunications in July, 2015. His current research areas include network service measurement, network behavior analysis on cloud and CDN and malicious network behavior detection. So far, he has conducted or participated in more than ten scientific projects, including the National Key R&D Program of China, the Strategic Priority Research Program of CAS, the National Natural Science Foundation of China and enterprise cooperation projects. He has published more than 20 academic papers and directed several graduate students.