THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering
Seminar

IoT+Blockchain, Technologies, Challenges, and Applications
by
Prof. Ren Ping Liu
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Date : **25 Oct., 2017 (Wed.)**
Time : **11:00am – 12:00noon**
Venue : **Room 833, Ho Sin Hang Engineering Building**
The Chinese University of Hong Kong

Abstract
The Internet of Things (IoT) is poised to transform our lives and unleash enormous economic benefit. In this talk, we discuss a wide range of IoT technologies and their applications, as well as the security and trust implications. We argue that the current security issues in IoT can be attributed to the centralized network architecture.

Blockchain, a distributed ledger, was initially designed as a financial transaction tool. Remarkably, its cryptographic security benefits, such as user anonymity, decentralization, fault tolerance, transaction integrity and authentication, can be used to resolve security and privacy issues of IoT. We discuss the benefits, limitations, and challenges of IoT+Blockchain. I will describe the tamper-resistant demonstration of a Blockchain built into our IoT testbed. I will also give a preview of our current project on IoT+Blockchain for supply chain tracking and traceability.

Biography
Ren Ping Liu is a Professor and Head of Discipline, Network and Cyber Security at the School of Electrical and Data Engineering in University of Technology Sydney. He is also the Research Program Leader of the Digital Agrifood Technologies in Food Agility CRC, a government/research/industry initiative to empower Australia's food industry through digital transformation. Prior to that he was a Principal Scientist and Research Leader at CSIRO, where he led wireless networking research activities. Professor Liu was the winner of Australian Engineering Innovation Award and CSIRO Chairman medal. He specialises in protocol design and modelling, and has delivered networking solutions to a number of government agencies and industry customers. His research interests include 5G, VANET, IoT, security, and Blockchain. Professor Liu has over 100 research publications, and has supervised over 30 PhD students.

Professor Liu is the founding chair of IEEE NSW VTS Chapter and a Senior Member of IEEE. He served as Technical Program Committee chairs and Organising Committee chairs in a number of IEEE Conferences. Ren Ping Liu received his B.E.(Hon) and M.E. degrees from Beijing University of Posts and Telecommunications, China, and the Ph.D. degree from the University of Newcastle, Australia.

** ALL ARE WELCOME **

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