## SEMINAR SERIES: BLOCKCHAIN-DRIVEN VALIDATION IN SUPPLY CHAIN APPLICATIONS

Date: 19 October 2017 (Thursday) 12:30 - 13:30 Time: Room N102, Hang Seng Management College Venue: Speaker: Dr. Tommy CHEUNG Assistant Professor Department of Supply Chain and Information Management Hang Seng Management College Dr. Cheung holds a PhD in Computer Engineering from UNSW, Australia. He is currently an Assistant Professor at Hang Seng Management College and also serves as a senior software architect of the QESS business simulation game project. Prior to joining this College, Dr. Cheung was the owner and director of a manufacturing business in China. He has years of experiences in business management and hardware/software designs. Blockchain, the technology underpinning Bitcoin, has been used to securely transfer value and Abstract: ownership of digital assets over a trustless and decentralized network and without the need of a central authority. In its simplest form, the blockchain is a distributed shared ledger, where all transactions involving the digital assets are recorded in chained blocks of data that are cryptographically linked together. The power of blockchain systems is in the consensus mechanism which ensures that all participants of a distributed ledger agree on a proposed transaction to update the ledger and enables the network to reach consensus, even if some of its members are failing or attempt to maliciously attack the network. The integrity of the proposed transactions, such as the financial data or goods and services, are validated through the consensus mechanism. The two most commonly used consensus mechanisms are the Proof-of-Work protocol used by Bitcoin, and the Proof-of-Stake protocol soon to be adopted by Ethereum, the second largest cryptocurrency after Bitcoin. Although commonly associated with Bitcoin, Blockchain technology has many applications that go beyond cryptocurrencies. For example, all the largest financial service firms are planning to use Blockchain technology as a record of ownership and money transfers in order to establish a secure, faster and near free global financial transactions. In supply chain, the transparent, replicated and distributed nature of Blockchian also enables new level of collaborations across supply chain partners, such as in the authentication of goods and the integration of products and money flows.

This talk will present an improved Blockchain consensus protocol that overcome some of the known issues in Proof-of-Work and Proof-of-Stake. It will also discuss the great prospects of the Blockchain technology in logistics, supply chain management, and supply chain finance.



## **Registration:**

## https://goo.gl/forms/g5E3iskdtSOYfMdq2



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