THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering

Seminar

Strategic Learning and Market Design
in Networked Systems
by
Dr. Yuanzhang Xiao
Northwestern University
U.S.A.

Date	**:**	**14 Feb., 2017 (Tue.)**
Time	**:**	**11:00am – 12:00noon**
Venue	**:**	**Room 1009, William M.W. Mong Engineering Building**
		The Chinese University of Hong Kong

Abstract

Networked systems are ubiquitous. Examples of networked systems include power networks and socio-technological networks. In such networks, intelligent agents share, exchange, and compete for resources according to some rules set by the network operator.

One challenge in such networks is that the agents may make strategic decisions that degrade the system efficiency. To efficiently operate these systems, the network operator needs to have a good prediction of the agents' strategic decisions, and design network rules that incentivize agents to behave well. In this talk, I will describe two novel methods, based on market design (for electricity markets) and strategic learning (for sharing economy), to address the challenges. The proposed methods may have other potential applications in power networks, socio-technological networks, and wireless networks.

Biography

Yuanzhang Xiao is a postdoctoral researcher from Department of Electrical Engineering and Computer Science at Northwestern University. He got his PhD from UCLA in 2014, and his B.S. and M.S. degrees from Tsinghua University in 2006 and 2009. He is generally interested in decision making over networks using tools from game theory, optimization, and reinforcement learning. He is the recipient of the 2013-2014 Dissertation Year Fellowship from UCLA.

** ALL ARE WELCOME **

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