

Seminar

Recent Advances in Cooperative Communications & Networks

Tony Q.S. Quek (Ph.D., MIT)

Principal Investigator

Institute for Infocomm Research (I²R)

Agency for Science, Technology and Research (A*STAR)

Adjunct Assistant Professor

Nanyang Technological University (NTU)



11 am, Tuesday, May 25, 2010

**Room 603, Chow Yei Ching
Building**

Abstract

Cooperative communications constitutes a new wireless networking paradigm whereby nodes work together in order to achieve a common goal. Harnessing the collective power of the network enables better reliability, increased coverage, longer network life, higher throughput, and massively parallel processing. In this talk, we present some of our recent results in cooperative communications and networks – 1) Cooperative multicell ARQ; 2) Outage Behavior of Selective Relaying; 3) Reliable Two-Way Relay Networks; and 4) Secure MIMO Relay Channels.

Biography

Tony Q.S. Quek received the B.E. and M.E. degrees in Electrical and Electronics Engineering from Tokyo Institute of Technology, Tokyo, Japan, in 1998 and 2000, respectively. At Massachusetts Institute of Technology (MIT), Cambridge, MA, he earned the Ph.D. in Electrical Engineering and Computer Science in Feb. 2008. Currently, he is a Principal Investigator at the Institute for Infocomm Research. He is also an Adjunct Assistant Professor with the Division of Communication Engineering, Nanyang Technological University.

Dr. Quek has been actively involved in organizing and chairing sessions, and has served as a member of the Technical Program Committee in a number of international conferences. He served as the Technical Program Chair for the Services & Applications Track for the IEEE Wireless Communications and Networking Conference in 2009; as Technical Program Vice-Chair for the IEEE Conference on Ultra Wideband in 2011; and as the Workshop Chair for the International Workshop on Femtocell Networks in 2010. Dr. Quek is currently an Editor for Wiley Journal on Security and Communication Networks and a Guest Editor for Journal of Communications and Networks (Special Issue on Heterogeneous Networks).

Dr. Quek received the Singapore Government Scholarship in 1993, Tokyu Foundation Fellowship in 1998, and the A*STAR National Science Scholarship in 2002. He was honored with the 2008 Philip Yeo Prize of Outstanding Achievement in Research from the A*STAR Science and Engineering Research Council.