

## THE CHINESE UNIVERSITY OF HONG KONG

Department of Information Engineering

Seminar

## Wireless Ad-Hoc Networks: Models, Optimization and Protocols

by

Professor Kin K. Leung
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Electrical Engineering and Computing Departments
Imperial College
London
U.K.

Date : 24 March, 2010 (Wed.)

Time : 4:00pm - 5:00pm

Venue: Room 1009, William M.W. Mong Engineering Building

The Chinese University of Hong Kong

## Abstract

In this seminar, the speaker will give an overview of his current research work in the area of wireless ad-hoc, mesh and sensor networks at Imperial College. By focusing on vehicular networks, the speaker will present new stochastic traffic models for vehicular ad-hoc networks (VANETs) in urban environments and their applications to quantify communication connectivity and identify locations for placing road-side communication nodes to optimize connectivity. Results on distributed optimization techniques for ad-hoc networks with power control will also be discussed. The seminar will then be concluded with a discussion on future work to extend the traffic models, optimization techniques and cross-layer protocol designs for VANETs.

## **Biography**

After receiving his Ph.D. degree from University of California at Los Angeles, Kin K. Leung joined AT&T Bell Labs in 1986 and worked at its successor companies, AT&T Labs and Lucent Technologies Bell Labs, until 2004. Since then, he has been the Tanaka Chair Professor in the Electrical Engineering and Computing Departments at Imperial College in London. He also serves as the Head of Communications and Signal Processing Group and the Deputy Director for the University Defense Research Center in the Electrical Engineering Department. He received a number of honors and awards for his technical contributions, including the IEEE Fellow. He is interested in network protocols, control algorithms, and optimization of wireless broadband, sensor and ad-hoc networks.

\*\* ALL ARE WELCOME \*\*

\*\*\* Light Refreshment will be served at 3:30pm - 4:30pm \*\*\*

Host: Professor Raymond W.H. Yeung (Tel: 2609-8375, Email: whyeung@ie.cuhk.edu.hk) Enquiries: Information Engineering Dept., CUHK (Tel.: 2609-8385)