



THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering
and Institute of Network Coding (INC)

Seminar

**Wireless Sensor Networks:
Protocols, Optimization and Applications**

by

Professor Kin K. Leung
Imperial College
London
United Kingdom

Date : 22 Feb., 2012 (Wed.)
Time : 2:30-3:30pm
Venue : Room 1009 William M.W. Mong Engineering Building
The Chinese University of Hong Kong

Abstract

In this talk, the speaker will give an overview of his current research work in the area of wireless sensor networks at Imperial College. Specifically, the speaker will begin by presenting applications of wireless sensors for monitoring of civil-engineering infrastructures (e.g., bridges, tunnels and water-supply networks) and pollution in urban environments. Then, new protocols and control algorithms for sensor networks to facilitate efficient channel access and in-network data processing for such applications will be introduced. The seminar will also present a distributed algorithm for resource allocation to optimize the network utility by considering the energy consumptions in the sensor networks. The performance of the proposed protocols and algorithms at the system level has been studied. Numerical results will be provided to illustrate the performance of the protocols and algorithms.

Biography

After receiving his Ph.D. degree from University of California at Los Angeles, Kin K. Leung joined AT&T Bell Labs in New Jersey 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 is 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 serves as a member (2009-11) and the chairman (2012-13) of the IEEE Fellow Evaluation Committee for Communications Society. His research interests include network protocols, control algorithms, and optimization of wireless broadband, sensor and ad-hoc networks. His website is located at www.commsp.ee.ic.ac.uk/~kkleung/

**** ALL ARE WELCOME ****