



THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering and
Shun Hing Institute of Advanced Engineering
Jointly Present Seminar

CSMA Slot Selection for Wireless Sensors

by

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Time : 11:00am – 12:00noon
Venue : Rm. 833, Ho Sin Hang Engineering Building,
The Chinese University of Hong Kong

Abstract

This talk addresses a fundamental question in CSMA design: If the contention window has K slots and there are N contenders, what is the probability distribution that maximizes the chance for a successful transmission? We relate the answer to wireless sensors and derive from it the Sift MAC protocol. Compared to previous protocols, Sift performs well in simulations with hundreds of sensors contending for 32 slots.

(This is joint work with Kyle Jamieson and Hari Balakrishnan.)

Biography

Y.C. Tay received his B.Sc. degree from the University of Singapore and Ph.D. degree from Harvard University. He has a joint appointment with the Departments of Mathematics and Computer Science at the National University of Singapore (<http://www.math.nus.edu.sg/~mattyc>). His main research interest is performance modeling (transaction processing, multimedia load-sharing, parallel rendering, wireless access, Internet equilibrium and page replacement).

**** ALL ARE WELCOME ****

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