

THE CHINESE UNIVERSITY OF HONG KONG

Department of Information Engineering

Seminar

WLAN channel selection without communication

by

Professor Douglas Leith Director of the Hamilton Institute National University of Ireland Maynooth

Date : 26 June, 2009 (Fri.) Time : 11:00am – 12:00noon

Venue : Room 833, Ho Sin Hang Engineering Building

The Chinese University of Hong Kong

Abstract

This talk discusses a new class of channel allocation algorithms that are simple, robust and require no communication between interfering WLANs. These algorithms are provably convergent and yet remarkably efficient under a wide range of network conditions and topologies. Using measurements of performance in a real office environment one interesting observation is that the interference between WLANs is generally channel dependent. This means that a different conflict graph is associated with each channel. This potentially has important implications as the behaviour of many proposed colouring-based algorithms for channel allocation is unclear in this context.

Biography

Professor Doug Leith is Director of the Hamilton Institute at the National University of Ireland Maynooth. His research interests include TCP congestion control, analysis and resource allocation in 802.11 wireless networks, fairness and routing in mesh networks.

** ALL ARE WELCOME **

Host: Professor Dah-Ming Winston Chiu (Tel: 2609-8357, Email: dmchiu@ie.cuhk.edu.hk) Enquiries: Information Engineering Dept., CUHK (Tel.: 2609-8385)