

THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering

Seminar

**Engineering Systems to use
Dynamic Spectrum Access (DSA) Technologies**

by

Professor Martin Weiss
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Date : 14 Nov., 2011 (Mon.)
Time : 11:30am-12:30pm
Venue : Room 833, Ho Sin Hang Engineering Building
The Chinese University of Hong Kong

Abstract

Dynamic spectrum access technologies offer challenging technical problems to engineers and interesting institutional problems to economists. Thus, it is not surprising that the literature is replete with papers addressing technical issues, including sensing, cognitive radios, spectrum trading systems, and so on. Many of these papers make reference to motivating factors that are related to growing wireless usage and generally low utilization of spectrum but fail to situate the paper in the context of which of the communications systems problems they are seeking to address. In this talk, I present a systems engineering approach to reasoning about DSA-based systems and their technologies that will help researchers frame their work more specifically.

Biography

Martin B.H. Weiss (mbw@pitt.edu) is Associate Dean for Academic Affairs and Research at the School of Information Science at the University of Pittsburgh, where he also holds a faculty appointment. He holds a PhD. in Engineering and Public Policy from Carnegie Mellon University where he studied the standards development process under Professor Marvin A. Sirbu. He earned an MSE in Computer, Control, and Information Engineering from the University of Michigan and a BSE in Electrical Engineering from Northeastern University. His overall research themes are the analysis of situations where competing firms must cooperate, cost modeling of new technologies in telecommunications systems and the evolution of telecommunications industry.

His industrial experience includes technical and professional work at several R&D and consulting firms in the United States. From 1978 to 1981, he was a Member of the Technical Staff at Bell Laboratories; from 1983 to 1985, he was a Member of the Technical Staff at the MITRE Corp; and from 1985 to 1987 he was a Senior Consultant with Deloitte, Haskins, and Sells.

His current research focus is on dynamic spectrum access and intelligent wireless systems. He is currently studying secondary spectrum use and spectrum trading using platforms based on Agent-based Computational Economics (ACE). Past projects include technical and cost studies of IP and ATM telephony, bandwidth markets, interconnection of packet networks that support quality of service (QoS), and economics of new technologies in telecommunications. He is the co-author of two books and has written numerous book chapters, major conference papers and refereed journal papers. He has been invited to serve on many expert panels for industry, government and academia.

**** ALL ARE WELCOME ****

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