Advances in Broadband Access Communications
An IEEE Communications Society Distinguished Lecture Tour

Professor Tho Le-Ngoc
McGill University, Montreal, Canada

Monday, 18 May 2009
6:00 p.m. – 6:30 p.m. Pizza & Networking
6:30 p.m. – 7:30 p.m. Lecture

No charge, non-members welcome

Northrop Grumman Aerospace Systems, Building: S-Forum/Café
2100 Marine Ave, Redondo Beach, CA 90278 (Building at end of Simon Ramo Dr)
Chairs: Ron Smith, Northrop Grumman and Charles Wang, The Aerospace Corporation

RSVP by 11 May to Ms. Janice Penland, via email Janice.D.Penland@aero.org
Please identify your citizenship, IEEE membership (non-members welcome), and affiliation when you RSVP

Abstract
Broadband access communications have been continuously developed with many advances in response to increasing demands of multimedia services and applications. Broadband communications systems are generally power- and bandwidth-limited while the communications channels are characterized by their frequency-selective fading and the presence of noise and interference. Due to the dynamic nature of both transmission media and multimedia traffic, re-configurable and adaptive schemes are of particular interest. Furthermore, in most broadband communications systems, interference is the major performance-limiting factor and interference mitigation can be more efficiently done by coordination of the transmission and resource allocation between users to minimize mutual interference in a collaborative manner. The talk will provide an overview of new developments / deployments in broadband access communications, and highlight technical issues in dynamic resource allocation and intelligent multi-dimensional signal processing and the evolution from competition, to cooperation and cognition in communications.

Biography
Tho Le-Ngoc obtained his B.Eng (with Distinction) in Electrical Engineering in 1976, his M.Eng in Microprocessor Applications in 1978 from McGill University, Montreal and his Ph.D. in Digital Communications 1983 from the University of Ottawa, Canada.

During 1977-1982, he was with Spar Aerospace Limited as a Design Engineer and then a Senior Design Engineer, involved in the development and design of the microprocessor-based controller of Canadarm (of the Space Shuttle), and SCPC/FM, SCPC/PSK, TDMA satellite communications systems. During 1982-1985, he was an Engineering Manager of the Radio Group in the Department of Development Engineering of SRTelecom Inc., developed the new point-to-multipoint DA-TDMA/TDM Subscriber Radio System SR500. He was the System Architect of this first digital point-to-multipoint wireless TDMA system. During 1985-2000, he was Professor in the Department of Electrical and Computer Engineering of Concordia University. Since 2000, he has been a Professor in the Department of Electrical and Computer Engineering of McGill University. His research interest is in the area of broadband digital communications. Since 2004, he has been Scientific Director of the Center for Advanced Systems and Technologies in Communications (SYTACom), including 5 universities in Quebec.

He is a Senior Member of the Ordre des Ingénieur du Quebec, a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), a Fellow of the Engineering Institute of Canada (EIC), and a Fellow of the Canadian Academy of Engineering (CAE). He is the recipient of the 2004 Canadian Award in Telecommunications Research, and recipient of the IEEE Canada Fessenden Award 2005. He holds a Canada Research Chair (Tier I) on Broadband Access Communications, and a Bell Canada/NSERC Industrial Research Chair on Performance & Resource Management In Broadband xDSL Access Networks. Since 1985, he has been a consultant, Technical Advisor, Chief Architect, Chief Scientist to several companies in communications.

contact information:
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Directions to IEEE Meeting at Northrop Grumman
Building S - Forum, Redondo Beach

Access Building S - Forum Entrance at lower level on North side of building

For online map search for 2100 Marine Ave, Redondo Beach, CA 90278
Near Metro Green Line – Marine / Redondo Station

From South of Redondo Beach:
- I-405 North
- Take Inglewood exit
- Right on to Inglewood Ave. (North)
- Left on Marine Ave.
- Left on Simon Ramo Dr.
- Building S is at end of road
- Park just North of building
- Walk down stairs to Forum Entrance

From North of Redondo Beach:
- I-405 South
- Take Rosecrans exit - West
- Right on to Rosecrans Ave. (West)
- Left on Aviation Blvd.
- Left on Marine Ave.
- Right on Simon Ramo Dr.
- Building S is at end of road
- Park just North of building
- Walk down stairs to Forum Entrance

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