



*Vehicular Technology/Communications Society joint Chapter
Italy Section*

AVVISO DI CONFERENZA

Nell'ambito delle manifestazioni culturali del
IEEE Vehicular Technology/Communications Society joint Chapter Italy Section

il giorno **9 luglio 2007**, con inizio alle **ore 15.00**

presso la **sala A -1.4** della Facoltà di Ingegneria dell'Università dell'Aquila

Poggio di Roio, 67040 L'Aquila

il **Prof. Moe Win** del Massachusetts Institute of Technology, Cambridge, MA, USA, terrà una conferenza dal titolo

Recent Advances in Ultra-wide Bandwidth Communications and Networks

La S.V. è gentilmente invitata a partecipare. Inoltre è gradita la diffusione di questo invito a chiunque possa essere interessato alla manifestazione.

(Prof. Francesco Vatalaro)
CHAIRMAN

Abstract:

Ultra-wide bandwidth (UWB) transmission systems have gained significant interest in the scientific, commercial and military sectors following a ruling by the US Federal Communications Commission (FCC) concerning UWB emission masks. This ruling allows for coexistence with traditional and protected radio services and enables the potential use of UWB transmission without allocated spectrum. Wide bandwidth provides fine delay resolution, robustness against fading, and superior obstacle penetration, making UWB technology a viable candidate for reliable communications in challenging environments, such as dense urban and forests. UWB transmission systems potentially allow low-cost production and reuse of already populated spectra; and hence they are currently under consideration for a wide variety of applications such as high data-rate communications and low data-rate sensor networks. With its low probability of detection and anti-jam capabilities, UWB also has applications in military and homeland security operations. This talk will present a brief technical overview of UWB communication networks with particular emphasis on recent advances in UWB system design and analysis.

Curriculum del Prof. MOE WIN:

Moe Win is an Associate Professor at the Laboratory for Information & Decision Systems (LIDS), Massachusetts Institute of Technology. Prior to joining LIDS, he spent 5 years at AT&T Research Laboratories and 7 years at the Jet Propulsion Laboratory. His main research interests are the application of mathematical and statistical theories to communication, detection, and estimation problems.

Dr. Win has been involved actively in organizing and chairing a number of international conferences. He served as the chair (2004-2006) and secretary (2002-2004) for the Radio Communications Committee of the IEEE Communications Society. Dr. Win is currently an Editor for IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS. He served as Area Editor for *Modulation and Signal Design* (2003-2006), Editor for *Wideband Wireless and Diversity* (2003-2006), and Editor for *Equalization and Diversity* (1998-2003), all for the IEEE TRANSACTIONS ON COMMUNICATIONS. He was Guest-Editor for the 2002 IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS (Special Issue on Ultra-Wideband Radio in Multiaccess Wireless Communications).

He received the IEEE Antennas and Propagation Society Sergei A. Schelkunoff Transactions Prize Paper Award and the Office of Naval Research Young Investigator Award in 2003. In 2004, he received the Fulbright Fellowship, the Institute of Advanced Study Natural Sciences and Technology Fellowship, and the Presidential Early Career Award for Scientists and Engineers from the United States White House. He was honored with the 2006 IEEE Eric E. Sumner Award "for pioneering contributions to ultra-wide band communications science and technology." Professor Win is an IEEE Distinguished Lecturer and elected Fellow of the IEEE, cited "for contributions to wideband wireless transmission."

Allegato:

Come raggiungere la Facoltà di Ingegneria – Poggio di Roio, L'Aquila

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