



NATEA SIG Wireless Seminar

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Date/Time: Tuesday, December 6, 2005 / 6:00 - 8:30 PM
Place: Mountain View City Library (free basement parking, see the map below)
585 Franklin St., Mountain View, CA 94041

Subject 1: **Wireless Mesh Network (802.11s): Applications and Markets**

Speaker: **Mr. William Wittmeyer, Founder and President, eXS Inc.**

Abstract

Spanning the Digital Divide. Designing an 802.11 based mesh network to provide voice and data services in emerging growth economies.

Developing economies lack a wide spread communications infrastructure. This lack of a communications infrastructure impedes the development of information based economies. 802.11 based wireless mesh networks are a low cost easily deployed solution to the communication needs in the emerging growth economies.

A WiFi based mesh network for the emerging economies has to be able to provide not only broadband access to the Internet but also provide the basic fixed line voice communications to residents and small businesses in those economies. The design criteria and use of the WiFi mesh network differs from the WiFi mesh network requirements of the developed economies.

Speaker Biography

Mr. Wittmeyer has over 20 years experience in high-technology business and investment management, with an emphasis on telecommunications. In 2003 he founded eXS Inc, a wireless access company developing innovative and cost effective products for developing economies.

Mr. Wittmeyer founded eXS Network Technologies Sdn. Bhd., to provide innovative communication solutions to Telekom Malaysia and other service providers in Southeast Asia. Prior to founding these companies he was active investing in telecommunications and semiconductor technology companies.

He has a B.Sc. (E.E.) from the US Coast Guard Academy and an M.B.A. from Columbia University Graduate School of Business Administration.



Subject 2: **3G: The Differences among WCDMA, TD-CDMA and TD-SCDMA**

Speaker: **Dr. Jung-Tao Liu, Spreadtrum Communication, Inc.**

Abstract

UMTS (Universal Mobile Telecommunications System) is an umbrella term for three different cellular standards - W-CDMA, TD-CDMA, and TD-SCDMA. The W-CDMA is widely accepted as the main successor for GSM/GPRS. The TD-CDMA receives less support from the industry and is viewed as a solution for office and indoor applications. The TD-SCDMA, originated in China, enjoys a strong backup from the Chinese government and has a potential of becoming widely deployed within China.

In this talk, we concentrate on the technical differences between the three standards focusing on the physical layer specifications. Special attentions are given to the transmit power control, transmit diversity, synchronization procedures, random access procedures, and Node B synchronization procedures in hope to shed some light on the possibility of an efficient dual-mode ASIC architecture between the 3G standards.

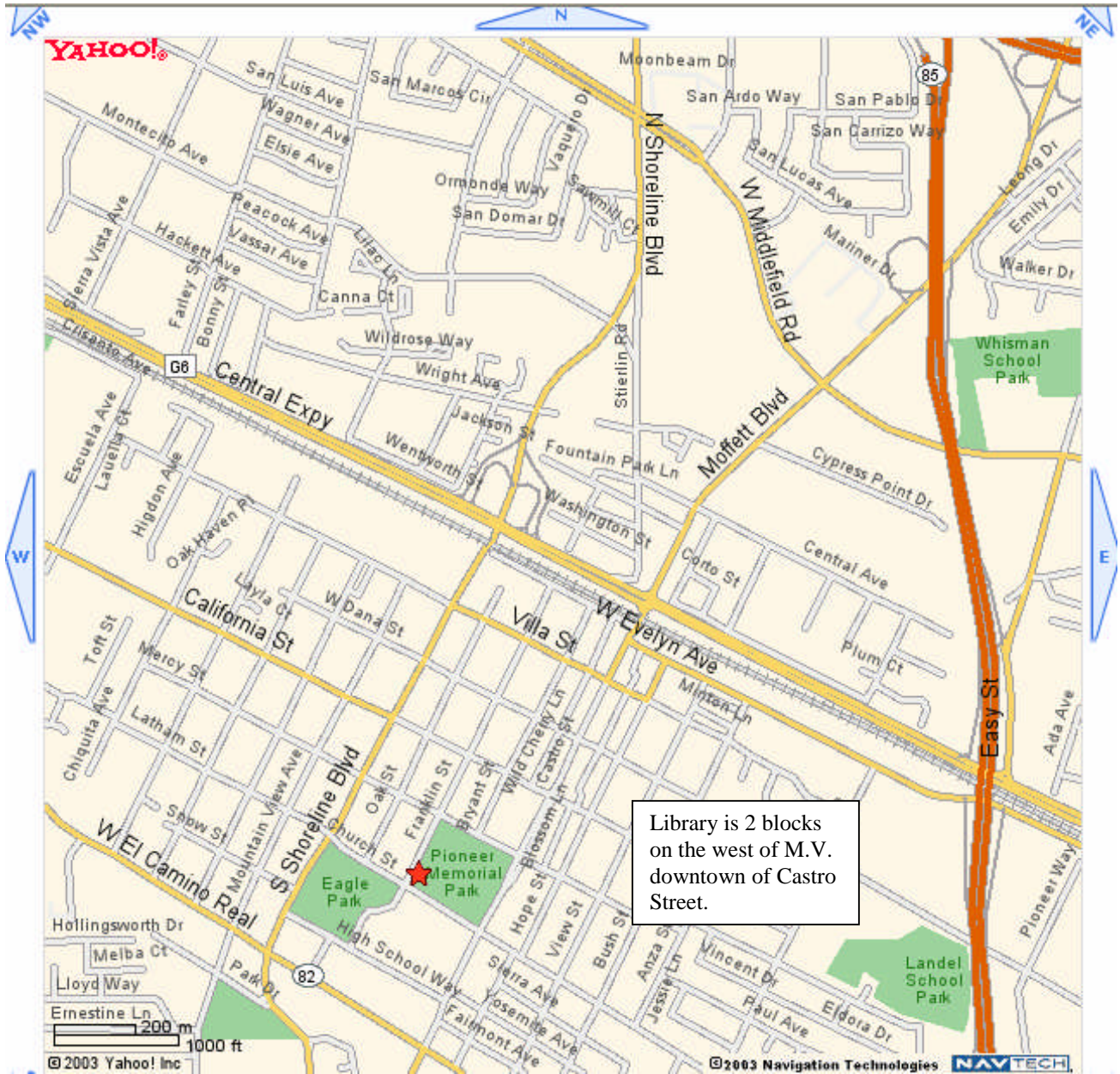
Speaker Biography

Jung-Tao Liu received his B.S. degree in electrical engineering from National Taiwan University, Taipei, Taiwan, in 1992 and the M.S. and Ph.D. degree from the School of Electrical and Computer Engineering at Purdue University in 1997 and 1999, respective.

He is currently driving both the EDGE and the WCDMA handset ASIC development efforts at Spreadtrum Communication, Incorporated. Between 1999 and 2004, he was with the Wireless Advanced Technology Lab., at Lucent Technologies, where he worked on the algorithm design for GPRS/EDGE receiver, MIMO technologies for HSDPA in UMTS, system performance analysis for CDMA2000 and UMTS cellular networks, OFDM system design for 3G, high speed packet data for UMTS uplink, etc. He is interested in the research of wireless communication theories; include coding, equalization, multiple antenna technologies, adaptive modulation, link adaptation, fast scheduling, multi-tone/multi-carrier wireless communications.



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