



MTT/ED/PHOTONICS CHAPTER

Sponsoring Technical Talk

Mobile Satellite Communication, DVB-SH and Hybrid Mobile TV

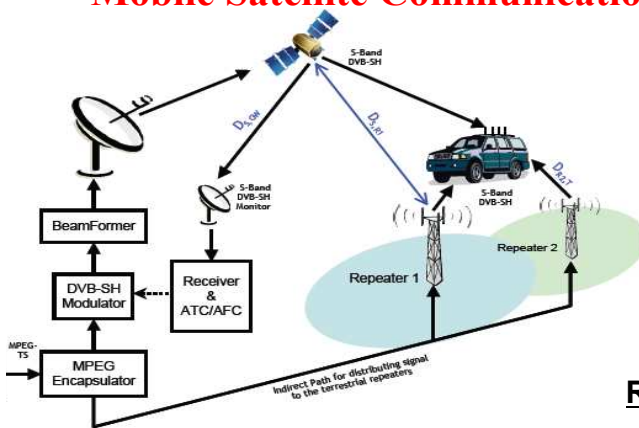
Presented By

Stephen A. Wilkus

January 21, 2010 at 6:15PM
Shrewsbury (Eastern) Branch Library
1001 Route 35, Shrewsbury, NJ 07702

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ABSTRACT - Emerging Mobile Television systems such as the Digital Video Broadcasting family, complement 3G wireless telephony in both service and technology. For example, technologically advanced digital radio concepts including Turbo coding, OFDM, and physical and link layer interleaving are now being used in broadcast television to mobile terminals.

Alcatel-Lucent has delivered a hybrid terrestrial & satellite broadcast to mobile terminals system using a Single Frequency Network (SFN). This uses terrestrial repeaters synchronized in both time and frequency with the satellite's changing signal. Synchronizing the satellite and terrestrial repeaters in this network present some fascinating challenges in architecture and RF network design. This talk will highlight the DVB-SH standard, the implementation of the trial system, field results and other related mobile satellite system developments.

BIO - Steve Wilkus (M'83, SM'07) received the B.S. degree in physics and the M.S.E.E. degree from the University of Illinois, Urbana, in 1981. He joined Bell Laboratories Lucent Technologies (then part of AT&T), as a Researcher and Developer of Surface Acoustic Wave devices used in undersea cable and wireless products. His interest in wireless communications lead to work on 802.11 and other standards and regulatory work in the AT&T Chief Architect's Office. In 1991, he spearheaded the development of a wireless electronic shelf label system sold through NCR using RFID technology. He later lead the first team to demonstrate High Speed Packet Access (HSPA) in 2003 and was the solutions architect for the DVB-SH system described in this paper. He works in the Alcatel-Lucent Wireless Chief Technology Office, is a Senior member of the IEEE and a member of the Alcatel-Lucent Technical Academy.

Questions?

Can be directed to NJ Coast MTT/ED/Photonics Chapter officers: Jeffrey H. Sinsky, Chair, sinsky@ieee.org; Chongjin Xie, Vice Chair Chongjin@alcatel-lucent.com; **OR** the speaker Steve Wilkus, Stephen.Wilkus@Alcatel-Lucent.com.