THE CHINESE UNIVERSITY OF HONG KONG
Institute of Network Coding
and
Department of Information Engineering
Seminar

Capacity Approaching Channel Coding in Use

by

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Date	:	**21 October 2013 (Monday)**
Time	:	**2:30 - 4:00 pm**
Venue	:	**Room 833, Ho Sin Hang Engineering Building**
		The Chinese University of Hong Kong

Abstract

The big upsurge in the use of wire and wireless communications started from the beginning of this century, which impacts our mankind in nearly all aspects. The backbone of this upsurge is the rapid technology development in telecommunications. The two most noticeable and closely related technologies involved in this development are OFDM and capacity approaching channel coding. Capacity approaching channel coding applies two classes of forward error correcting codes - turbo codes and LDPC (low density parity check) codes. In fact, in the last 13 years almost all wire and wireless communication standards and products applied capacity approaching channel coding. In this talk, we will discuss capacity approaching channel coding developments in industries of cable, Ethernet, home network, mobile, satellite and wireless-LAN.

Biography

Ba-Zhong Shen received his M.S. degree from Xidian University, China and his Ph.D degree from Eindhoven University of Technology, the Netherlands. From July 1993 to February 1996 he was with the Department of Electrical Engineering and Computer Science at Lehigh University, Bethlehem, PA, USA, becoming a Research Scientist in August 1993, and Adjunct Assistant Professor in January 1994. During 1996-1999, he was with Technology and Engineering of Quantum Corporation as principle design engineer. In 1999 he joined Broadcom Corporation, USA, where he currently is Broadcom Distinguished Engineer and Technical Director. He is also visiting professor of Xidian University and an overseas academic master in the wireless-network 111 base. Dr. Shen has long-term engaged in the research and development of channel coding and video coding in wire and wireless communications. He published more than 20 journals and conference papers, and has 147 issued US patents. Dr. Shen participates and contributes numerous international communication industry standard, such as IEEE 802.3 (an, bn, bp), IEEE 802.11 (n, ac, ad), 3GPP LTE, WiGiG, ITU G.hn, MoCA, HEVC (MPEG/ITU) and DOCSIS. Many of his inventions have been adopted to the standards and built into the wire or wireless communication products.

**ALL ARE WELCOME **

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