IEEE WCNC 2013 Workshop on Convergence of Broadcasting and Broadband Communications Program

Sunday, April 7, 2013

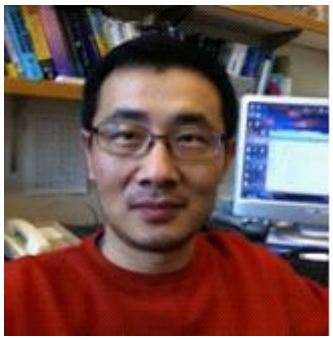
09:00 - 10:30

Room: 3H+3I
Chair: Prof. Mingqi Li, (Shanghai Advanced Research Institute, Chinese Academy of Sciences, China)
Keynote Speech#1: Ziqiang Hou (Chinese Academy of Sciences, China)
Title: "Evolution Trend of Convergence of Broadcast and Broadband Communication"
Bio:

Mr. Ziqiang Hou, is a professor of the Institute of Acoustics, China Academy of Science (CAS). Mr. Hou was the Secretary General of the Chinese Academy of Sciences from 1988 to 1993, and Director of the Institute of Acoustics CAS from 1993 to 1997. Mr. Hou is also an Committeeman of the Telecommunication Science and Technology Committee of the Ministry of Industry and Information technology (MIIT). He leads an R&D group in digital information, consumer electronics products and broadband wired and wireless IP network area in the Institute of Acoustics, CAS. Prof. Hou is the pioneer in China to promote broadband IP network as information infrastructure. He has series paper about WAN, MAN and wire and wireless access network base on broadband IP technology. He has won the 1st Class Chinese National Award of Science and Technology Progress.

Keynote Speech#2: Hui Liu (Shanghai Jiaotong University, China)
Title: "Exploiting new dimensions in wireless massive content delivery"

Bio：



Dr. Hui Liu, Zhi Yuan Chair Professor of Shanghai Jiao Tong University, received his B.S. in 1988 from Fudan University, Shanghai, China, , and a Ph.D. degree in 1995 from the Univ. of Texas at Austin, all in electrical engineering. He was previously an assistant professor at the Dept. of EE at Univ. of Virginia and a full professor at the Dept. of EE, Univ. of Washington. Dr. Liu was the chief scientist at Cwill Telecom, Inc., and was one of the principal designers of the TD-SCDMA technologies. He founded Adaptix in 2000 and pioneered the development of OFDMA-based mobile broadband networks (mobile WiMAX and 4G LTE). Dr. Liu is the creator of CMMB transmission technology which enables the delivery of mobile TV services in different regions of the world. His research interests include broadband wireless networks, array signal processing, DSP and VLSI applications, and multimedia signal processing.

Dr. Liu has published more than 50 journal articles and has over 70 awarded patents. He is the author of "OFDM-Based Broadband Wireless Networks – Design and Optimization," Wiley 2005, and "Signal Processing Applications in CDMA Communications," Artech House, 2000. Dr. Liu's activities for the IEEE Communications Society include membership on several technical committees and serving as an editor for the IEEE Transactions in Communications. He was selected Fellow of IEEE for contributions to global standards for broadband cellular and mobile broadcasting. He is the General Chairman for the 2005 Asilomar conference on Signals, Systems, and Computers. He is a recipient of 1997 National Science Foundation (NSF) CAREER Award, the Gold Prize Patent Award in China, and 2000 Office of Naval Research (ONR) Young Investigator Award.

Keynote Speech#3: Kwang-Cheng Chen (National Taiwan University)
Title: A Spectrum Sharing View on Broadcasting and Wireless Communications

Bio：

Kwang-Cheng Chen received B.S. from the National Taiwan University in 1983, M.S. and Ph.D from the University of Maryland, College Park, United States, in 1987 and 1989, all in electrical engineering. From 1987 to 1998, Dr. Chen worked with SSE, COMSAT, IBM Thomas J. Watson Research Center, and National Tsing Hua University, in mobile communications and networks. Since 1998, Dr. Chen has been with National Taiwan University, Taipei, Taiwan, ROC, and is the Distinguished Professor and Deputy Dean in academic affairs for the College of Electrical Engineering and Computer Science, National Taiwan University. Dr. Chen actively involves organization of various IEEE conferences as General/TPC chair/co-chair. He has served editorship with a few IEEE journals and served various positions in IEEE. Dr. Chen also actively participates and has contributed essential technology to various IEEE 802, Bluetooth, and 3GPP wireless standards. He has authored and co-authored over 250 technical papers and more than 20 granted US patents. He co-edits (with R. DeMarca) the book Mobile WiMAX published by Wiley 2008, and authors a book Principles of Communications published by River 2009, and co-author (with R.Prasad) another book Cognitive Radio Networks published by Wiley 2009. Dr. Chen is an IEEE Fellow and has received a number of awards including 2011 IEEE COMSOC WTC Recognition Award and co-authored a few award-winning papers published in the IEEE ComSoc journals and conferences. Dr. Chen's research interests include wireless communications and network science.

Guests： Keith Q.T. Zhang (CityU, HongKong), Douglas N. Zuckerman (IEEE Division III Director (Communications Technology)), Hsiao-Hwa Chen (National Cheng Kung University), Honglin Hu (Wico, China).

11:00 - 12:30

Room: 3H+3I
Chair: Dr. Yanzan Sun(Shanghai University, China)

Coverage performance and comparison between broadcasting and cellular systems

Fei Huang (Shanghai Advanced Research Institute, Chinese Academy of Sciences, P.R. China); Liu Zhen (Shanghai Advanced Research Institute, Chinese Academy of Sciences, P.R. China); Yun Rui (Shanghai Advanced Research Institute，Chinese Academy of Sciences, P.R. China) Wei Dongdong (Shanghai Advanced Research Institute, Chinese Academy of Sciences, P.R. China); Mingqi Li (SARI, CAS, P.R. China);

Optimization of the Energy Efficiency of a Hybrid Broadcast/Unicast Network

Nicolas Cornillet (IETR-INSA, France); Matthieu Crussière (IETR - Electronics and Telecommunications Research Institute of Rennes (IETR), France); Jean-François Hélard (IETR, France)

A QoS-guaranteed resource scheduling algorithm in high-speed mobile convergence network

Hui Gao (Shanghai Research Center for Wireless Communication, P.R. China); Yuling Ouyang (Shanghai Research Center for Wireless Communication, P.R. China); Honglin Hu (Shanghai Research Center for Wireless Communications, P.R. China); Yevgeni Koucheryavy (Tampere University of Technology, Finland)

Methods of Time Slicing and Mapping for Next Generation Broadcasting-Wireless

Ying Yang (Nanjing University of Aeronautics and Astronautics, Shanghai Advanced Research Institute, P.R. China); Xiangbin Yu (Nanjing University of Aeronautics and Astronautics, P.R. China); Jinfeng Tian (Shanghai Advanced Research Institute, CAS, P.R. China); Yajun Kou (Shanghai Advanced Research Institute, CAS, P.R. China); Fei Huang (Shanghai Advanced Research Institute, Chinese Academy of Sciences, P.R. China); Mingqi Li (SARI, CAS, P.R. China)

Rate Compatible Raptor-like LDPC Codes with Partially Decoder for Green Terrestrial Broadcasting System

Ma Wenfeng (PLA University of Science & Technology, P.R. China); Hui Tian (Institute of Communications Engineering, PLA University of Science and Technology, P.R. China); Zhang Yang (Shanghai National Engineering Research Center of Digital Television Co., Ltd, P.R. China); Youyun Xu (PLA Uuniversity of Science & Technology, P.R. China)

14:00 - 15:30

Room: 3H+3I

Chair: Prof. Xiangbin Yu, (Nanjing University of Aeronautics and Astronautics, China)

A Game Theory Approach for Power Control and Relay Selection in Cooperative Communication Networks with Asymmetric Information

Yanxi Wang (Shanghai Jiaotong University, P.R. China); Gaofei Sun (Shanghai Jiao Tong University, P.R. China); Xinbing Wang (Shanghai Jiaotong University, P.R. China)

Asynchronous Transmission of Wireless Multicast System with Genetic Joint Antennas Selection

Ji-hua Lu (Beijing Institute of Technology, P.R. China); Xiangming Li (Beijing Institute of Technology, P.R. China); Dan Liu (Beijing Instititute of Technology, P.R. China)

Wavelet BEM Based Channel Estimation over Rapidly Time-Varying Channels

Hua Yang (Shanghai Jiao Tong University, P.R. China); Jian Xiong (Shanghai Jiao Tong University, Shanghai, P.R. China); Suyue Li (Shanghai Jiao Tong University, P.R. China); Gui Lin (ShangHai JiaoTong University, P.R. China)

Storage Performance Evaluation of Media Server Based on Multi-Core Network Processors

Qiuli Shang (Institute of Acoustics, Chinese Academy of Sciences, P.R. China); Wu Zhang (Institute of Acoustics, Chinese Academy of Sciences, P.R. China); Xiao Chen (Institute of Acoustics, Chinese Academy of Sciences, P.R. China); Xiuyan Guo (Institute of Acoustics, Chinese Academy of Sciences, P.R. China)

A method for Pico-specific Upper Bound CRE Bias setting in HetNet

Yanzan Sun (Shanghai University, P.R. China); Tianle Deng (Huawei Technologies Co. Ltd, P.R. China); Yong Fang (Shanghai University, P.R. China); Min Wang (Shanghai University, P.R. China); Yating Wu (Shanghai University, P.R. China)

16:00 - 17:00

Room: 3H+3I

Chair: GaoFei Sun, (Shanghai Jiaotong University, P.R. China)

A Compact Dual Mode Tunable Filter with Source and Load Coupling

Chuan Ge (Southeast University, P.R. China); Xiaowei Zhu (Southeast University, P.R. China)

Performance Analysis of Rate-adaptive Modulation with Antenna Selection in Multiuser MIMO System

Xin Yin (Nanjing University of Aeronautics and Astronautics, P.R. China); Xiangbin Yu (Nanjing University of Aeronautics and Astronautics, P.R. China); Xiaoshuai Liu (Nanjing University of Aeronautics and Astronautics, P.R. China); Yun Rui (Shanghai Advanced Research Institute，Chinese Academy of Sciences, P.R. China); Wei Tan (Nanjing University of Aeronautics and Astronautics, P.R. China); Chen Xiaomin (Nanjing University of Aeronautics and Astronautics, P.R. China)

A High Throughput LDPC Decoder in CMMB Based on Virtual Radio

Xia Pan (Nanjing University of Posts and Telecommunications, P.R. China); Xiaofan Lu (ShangHai Advanced Research Institute, Chinese Academy of Science, P.R. China); Mingqi Li (SARI, CAS, P.R. China); Rongfang Song (Nanjing University of Posts and Telecommunications, P.R. China)