C-RAN 2012

Tuesday, 7 August • 8:30-17:30

General Chair: Prof. Jing Wang, Tsinghua University, P.R. China

Keynote Session 1 (8:30-10:00)
Session Chair: Dr. Chih-Lin I, China Mobile Research Institute

Welcome and keynote speech 1 (8:30-9:00)
Title: Terminated Architecture of Mobile Communication Systems--DWCS
Speaker: Prof. Jing Wang, Tsinghua University, P.R. China

Keynote speech 2 (9:00-9:30)
Title: C-RAN: Road towards Green Radio Access Network
Speaker: Mr. Kuilin Chen, China Mobile Research Institute

Keynote speech 3 (9:30-10:00)
Title: Thinking of the future development of mobile communication networks
Speaker: Prof. Jinglin Shi, Institute of Computing Technology of CAS

Coffee Break 10:00-10:30

Keynote Session 2 (10:30-11:30)
Session Chair: Dr. Chih-Lin I, China Mobile Research Institute

Keynote speech 4 (10:30-11:00)
Title: Wireless Network Cloud based on IT Platform: Challenges and Opportunities
Speaker: Ms. Yonghua Lin, IBM Research Labs, China

Keynote speech 4 (11:00-11:30)
Title: Single Cloud Network: Solution to the Next Generation Wireless Network
Speaker: Dr. Jianjun Wu, Huawei Corporate Research Department

Session 1 11:30-12:00 (Oral)
Session Chair: Prof. Ming Zhao, Tsinghua University

Title: Transmission Solutions and Architectures for Heterogenous Networks Built as C-RANs
Author: Zere Ghebretensäe and Kim Laraqui (Ericsson Research Ericsson AB Stockholm, Sweden)
Filippo Ponzini, Luca Giorgi and Stefano Stracca (Ericsson Research Ericsson Telecomunicazioni SPA Pisa, Italy)
Jingjing Chen and Yinggang Li (Ericsson Research Ericsson AB Mölndal, Sweden)
Andrew R. Pratt (Regional Portfolio Management Ericsson (China) Communications Co. Ltd Beijing, China)

Title: Field Test of Uplink CoMP Joint Processing with C-RAN Testbed
Author: Lei Li, Kaihang Xiong, Peter Butovitsch (Ericsson (China) Communications Co. Ltd, Beijing, China)

Lunch Time 12:00-14:00

Session 2 14:00-15:30 (Oral)
Session Chair: Mr. Kuilin Chen, China Mobile Research Institute

Title: Software-Defined Radio Based On Cortex-A9
Author: Xin Wei, Zhiyuan Shi, Lianfen Huang (School of Information Science &Technology, Xiamen University)

Title: BBU-RRH Switching Schemes for Centralized RAN
Author: Shinobu NAMBA, Takayuki WARABINO, Shoji KANEKO (KDDI R&D Laboratories Inc)

Title: CPU-MPU partitioning for C-RAN applications
Author: Tal Kaitz (ASOCS Ltd.Tel Aviv, Israel)
Gaby Guri (ASOCS Ltd.Tel Aviv, Israel)

Title:A Time Synchronization Mechanism Based on Software Defined Radio of General-Purpose Processor
Author: Hongliang Duan(Institute of Computing Technology, Chinese Academy of Sciences & Northwestern Polytechnical University)
Dengshan Huang (Northwestern Polytechnical University)

Title: Performance assessment of C-RAN: methodology, analysis and preliminary results
Author: LUO Yajuan, ZHANG Xiaona, YANG Feng, HUANG Lin, SHI Zhenning, GU Daqing (Wireless Communication Network Group, Orange
Labs, Beijing)
Alan STIDWELL (Orange Labs Networks & Carriers, New Radio Technology, Bristol UK)

Title: Performance Evaluation of Coordinated Multipoint Reception in CRAN Under LTE-Advanced Uplink
Author: Yuan Huiyu, Zheng Naizheng, Yan yuyu (China Industrial Environment, Chief Technology Office, Nokia Siemens Networks, Beijing, China)

Session 3 14:00-15:30 (Poster)
Title: Performance Analysis of Dynamic Point Selection in Extended Link Level Simulation
Author: Wang Chunye, Skov Peter, Li Zhang (Industrial Environment Nokia Siemens Network)

Title: Performance Evaluation of Layer Adaptive Multi-User Scheduling in LTE-A Downlink
Author: Li Zhang, Skov Peter, Chunye Wang (China Industrial Environment, Chief Technology Office, Nokia Siemens Network)

Title: Analysis for signal processing development with general purpose processor
Author: He Zhiqiang, Sun Jianxing (Key Laboratory of Universal Wireless Communications Ministry of Education Beijing University of Posts and Telecommunications )
Chen Kuilin, Duan Ran (China Mobile Research institute)

Title: Optimization for TD-LTE Signal Processing based on General Purpose Processor
Author: Jiang Weipeng, He Zhiqiang (Key Laboratory of Universal Wireless Communications Ministry of Education Beijing University of Posts and Telecommunications)
Duan Ran, Huang Jinri (China Mobile Research institute)

Title: GPP-based Random Access Preamble Detection in TD-LTE
Author: Yang Fangliao He Zhiqiang (Key Laboratory of Universal Wireless Communications Ministry of Education Beijing University of Posts and Telecommunications)
Chen Kuilin, Huang Jinri (China Mobile Research institute)

Title: An Implementation of MIMO Detection in TD-LTE based on General Purpose Processor
Author: Li Zhou, He Zhiqiang (Key Laboratory of Universal Wireless Communications Ministry of Education Beijing University of Posts and Telecommunications)

Coffee Break 15:30-16:00

Session 4 16:00-17:30 (Oral)
Session Chair: Dr. Yan Zhang, Tsinghua University

Title: Evaluation of Energy Efficiency for C-RAN Architecture with Centralized BBUs
Author: Chih-Hsuan Tang, Chi-En Wu, and Chen-Yin Liao (Chunghwa Telecom Laboratories, 12, Lane 551, Min-Tsu Rd. Sec.5 Yang-Mei, Taoyuan, Taiwan 32601, R.O.C)
Clark Chen, Jinri Huang (China Mobile Research institute)

Title: High Throughput Turbo Decoder Design for GPP Platform
Author: Suiping Zhang, Rongrong Qian, Tao Peng (School of Information and Communication Engineering Beijing University of Posts and Telecommunications)
Ran Duan, Kuilin Chen (Wireless Technology Research China Mobile Research Institute Beijing, China)

Title: TD-LTE eNodeB prototype using general purpose processor
Author: Niu Kai, Sun Jianxing (Key Laboratory of Universal Wireless Communications Ministry of Education Beijing University of Posts and Telecommunications)
Chen Kuilin, Duan Ran (China Mobile Research institute)

Title: A Method of Optimizing the De-rate Matching and Demodulation in LTE based on GPP
Author: Zhao Guanghui, Niu Kai (Key Laboratory of Universal Wireless Communications Ministry of Education Beijing University of Posts and Telecommunications)
He Lifeng, Huang Jinri (China Mobile Research institute)

Title: A Theoretical Analysis of I/Q Data
Compression in Distributed Antenna Systems  
Author: Haibin Yang, Chunhui Zhou, Ming Zhao, Jing Wang (State Key Laboratory on Microwave and Digital Communications, Tsinghua National Laboratory for Information Science and Technology Research Institute of Information Technology, Tsinghua University)  
Title: Investigation on USB 2.0 in Software-Defined Radio  
Author: Jing Zhou, Xin Qi, Xin Su, Haibin Yang  
(State Key Laboratory on Microwave and Digital Communications, Tsinghua National Laboratory for Information Science and Technology Research Institute of Information Technology, Tsinghua University)

Session 5 16:00-17:30 (Poster)  
Title: A Novel GPP-based Software-Defined Radio Architecture  
Author: Peng Guo, Xin Qi, Limin Xiao, Shidong Zhou (State Key Laboratory on Microwave and Digital Communications, Tsinghua National Laboratory for Information Science and Technology Department of Electronic Engineering, Tsinghua University)

Title: Field Test of Downlink Fast RRM with C-RAN Testbed  
Author: Lei Li, Kaihang Xiong, Peter Butovitsch (Ericsson (China) Communications Co. Ltd Beijing, China)

Title: Research on Coordinated Multi-Point Adaptation Prototype Based on Vector Projection  
Author: Yanwen Wang, Shijun Chen, Liujun Hu, Tao Jin, Ye Liu and Wenhao Liu (ZTE CORPORATION, Xi ’an, China)

Title: CPRI compression transport for LTE and LTE-A signal in C-RAN  
Author: Bin Guo; Wei Cao; An Tao; Bijun Zhang (Alcatel-Lucent Shanghai Bell Company Limited Shanghai, China)  
Dragan Samardzija (Alcatel-Lucent Bell Laboratories Holmdel, USA)

Title: Analysis of Handover Performance Improvement in Cloud-RAN Architecture  
Author: Liang Liu, Feng Yang, Richard Wang, Zhenning Shi, Daqing Gu (Wireless Communication Network Group, Orange Labs Beijing)  
Alan Stidwell (New Radio Technology, Orange Labs Networks & Carriers, Bristol UK)

Title: Low Complexity LMMSE Channel Estimation on GPP