

## Thursday, August 11, 2011

8:00am - 6:00pm Registration open

8:30am - 9:00am Conference opening session

9:00am - 10:00am **Keynote Speech: Prof. Dr. Rabinder N. Madan**

10:00am - 10:30am Break

10:30am – 12:10 pm **Session 1: Wireless Network Capacity**  
**Chair: Xiuzhen Cheng (George Washington University, USA)**

### **Multicast Capacity-Delay Tradeoff with Network Coding in MANETs**

*Fu Luoyi (Shanghai Jiaotong University, China), Li Jian (Shanghai Jiaotong University, China), Guo Jia (Shanghai Jiaotong University, China), Wang Xinbing (Shanghai Jiaotong University, China), Zhang Yongsheng (DoCoMo Beijing Communications Laboratories, China), Wang Xiaoli (DoCoMo Beijing Communications Laboratories, China) and Zhao Qun (DoCoMo Beijing Communications Laboratories, China)*

### **Hybrid Random Network Coding**

*Chih-Wei Yi (National Chiao Tung University, Taiwan)*

### **Enhancing Macrocell Downlink Performance Through Femtocell User Cooperation**

*Adem Zaid (Oregon State University, USA), Bechir Hamdaoui (Oregon State University, USA), Taieb Znati (University of Pittsburgh, USA) and Xiuzhen Cheng (George Washington University, USA)*

### **Modelling and Performance Analysis of Queueing Systems for Self-Similar Services in Wireless Cooperative Multi-Relay Networks**

*Xing Zhang (Beijing University of Posts and Telecom, China)*

### **Energy Efficient Data Aggregation in Solar Sensor Network**

*Jianhui Zhang (Hangzhou Dianzi University, China) and Shaojie Tang (Illinois Institute of Technology, USA)*

12:10pm – 1:30pm Lunch

2:00pm – 3:00pm **Keynote Speech: Prof. Xuemin Shen**

3:00pm – 3:30pm Break

3:30pm – 5:30pm **Session 2: Invited Session on Wireless Networks**

**Chair: Mo Li (Nanyang Technological University, Singapore)**

### **Approaching Efficient Flooding Protocol Design in Low-Duty-Cycle Wireless Sensor Networks**

*Zhenjiang Li (Nanyang Technological University, Singapore) and Mo Li (Nanyang Technological University, Singapore)*

**A Study on Spatial-temporal Dynamics Properties of Indoor Wireless Channels**

*Ruonan Zhang (Northwest Polytechnical University, China), Xiaofeng Lu (Huawei, China), Zhimeng Zhong (Huawei, China) and Lin Cai (University of Victoria, Canada)*

**Jamming-resistant Communication in Multi-Channel Multi-hop Multi-path Wireless Networks**

*Hai Su (Illinois Institute of Technology, USA), Qian Wang (Illinois Institute of Technology, USA), Kui Ren (Illinois Institute of Technology, USA)*

**A Zone-Diffusion Based Routing Protocol for LEO satellite networks**

*Wei Dong (Sichuan University, China), Junfeng Wang (Sichuan University, China), and Juan Zhang (Sichuan University, China)*

**Dual-Decomposition Approach for Distributed Optimization in Wireless Sensor Networks**

*Yang Weng (Sichuan University, China) and Wendong Xiao (Institute for Infocomm Research, Singapore)*

**uSD Card: a Plug&Play Solution for Mobile Device to Access Wireless Sensor Networks**

*Canfeng Chen (Nokia Research Center, China), Xin Zhang (Nokia Research Center, China), Jinfeng Zhang (Nokia Research Center, China) and Yuezhong Tang (Nokia Research Center, China)*

**7:00pm – 9:00pm Welcome Reception**

**Friday, August 12, 2011**

**8:40am – 10:00am Session 3: Topology Control and Coverage**

**Chair: Kai Xing (University of Science and Technology of China, China)**

**Minimum-Cost Linear Coverage by Sensors with Adjustable Ranges**

*Minming Li (City University of Hong Kong, Hong Kong), Xianwei Sun (City University of Hong Kong, Hong Kong), Peng-Jun Wan (Illinois Institute of Technology, USA) and Yingchao Zhao (City University of Hong Kong, Hong Kong)*

**A Genetic Algorithm for Constructing a Reliable MCDS in Probabilistic Wireless Networks**

*Jing Selena He (Georgia State University, USA), Zhipeng Cai (Georgia State University, USA), Shouling Ji (Georgia State University, USA), Raheem Beyah (Georgia State University, USA) and Yi Pan (Georgia State University, USA)*

**Wireless Coverage via Dynamic Programming**

*Xiaohua Xu (Illinois Institute of Technology, USA) and Zhu Wang (Illinois Institute of Technology, USA)*

**A Maximal Independent Set based Giant Component Formation in Random Unit-Disk Graphs**

*Kai Xing (University of Science and Technology of China, China)*

**10:00am - 10:30am Break**

**10:30am – 12:10 pm Session 4: Wireless Sensor Networks**  
**Chair: Djamel Djenouri (CERIST Research Center, Algeria)**

**Maelstrom: Receiver-Location Preserving in Wireless Sensor Networks**

*Shan Chang (Xi'an Jiao tong University, China), Yong Qi (Xi'an Jiao tong University, China), Hongzi Zhu (University of Waterloo, Canada), Mianxiong Dong (University of Waterloo, Canada), and Kaoru Ota (University of Waterloo, Canada)*

**Reputation Modeling for Wireless Sensor Networks**

*Mengshu Hou (University of Electronic Science and Technology, China) and Zhe Wei (University of Electronic Science and Technology, China)*

**The Design of a Wireless Sensor Network for Seismic-observation-environment Surveillance**

*Xiaoguang Niu (Wuhan University, China), Chuanbo Wei (Wuhan University, China), and Lina Wang (Wuhan University, China)*

**Distributed Receiver/Receiver Synchronization in Wireless Sensor Networks: New Solution and Joint Offset/Skew Estimators for Gaussian Delays**

*Djamel Djenouri (CERIST Research Center, Algeria)*

**On Topology of Sensor Networks Deployed for Tracking**

*Ye Zhu (Cleveland State University, USA), Anil Vikram (Cleveland State University, USA), and Huirong Fu (Oakland University, USA)*

**12:10pm – 1:30pm Lunch**

**1:30pm – 2:50pm Session 5: Coding and Information Theory**  
**Chair: Lian Zhao (Ryerson University, Canada)**

**An Entropy Based Approach for Sense-through Foliage Target Detection Using UWB Radar**

*Ishrat Maherin (University of Texas at Arlington, USA) and Qilian Liang (University of Texas at Arlington, USA)*

**Improving Performance of Multi-Radio Frequency-Hopping Wireless Mesh Networks**

*Davis Kirachaiwanich (University of Texas at Arlington, USA) and Qilian Liang (University of Texas at Arlington, USA)*

**Improved and Extended Sum-Capacity Computation for the Gaussian Vector Broadcast Channel Via Dual Decomposition**

*Peter He (Ryerson University, Canada), Lian Zhao (Ryerson University, Canada) and Zaiyi Liao (Ryerson University, Canada)*

**Efficient Maximum Weighted Sum-Rate Computation for Multiple Input Single Output Broadcast Channels**

*Peter He (Ryerson University, Canada), Shan He (Queens University, Canada) and Lian Zhao (Ryerson University, Canada)*

**2:50pm – 3:30pm Break**

**3:30pm – 5:50pm Session 6: Invited Session on LTE Technology**  
**Chair: Lingyang Song (Peking University, China)**

**Optimal precoding for bi-directional MIMO transmission with network coding**

*Qin Yi (Shanghai Jiao Tong University, China), Ding Ming (Shanghai Jiao Tong University, China) and Luo Hanwen (Shanghai Jiao Tong University, China)*

**An Enhanced Algorithm for the Transmission Mode Switching in TD-LTE Downlink Systems**

*Yuan Li (Beijing University of Posts & Telecommunications, China), Mugen Peng (Beijing University of Posts & Telecommunications, China), and Wenbo Wang (Beijing University of Posts & Telecommunications, China)*

**IRW: Low-cost localization with error control in fading environments**

*Guang Wu (Huazhong university of science and technology, China), Shu Wang (Huazhong university of science and technology, China), Yan Dong and Wei Tang (Huazhong university of science and technology, China)*

**Benefit from rateless characteristic**

*Xuyun Wang (Huazhong university of science and technology, China), Yan Dong (Huazhong university of science and technology, China), Xiaoyan Wang (Huazhong university of science and technology, China) and Rupeng Xie (Huazhong university of science and technology, China)*

**Design and Implement of the Intelligent Network Caring System**

*Xiaoyan Wang (Huazhong university of science and technology, China), Yan Dong (Huazhong university of science and technology, China), Zhen Chen (Huazhong university of science and technology, China), Yu Wang (Huazhong university of science and technology, China), Feng Gao (Huazhong university of science and technology, China), and Ying Zhang (Huazhong university of science and technology, China)*

**Joint Subcarrier and Power Allocation for Multiuser OFDM Systems using Distributed Auction Game**

*Rongqing Zhang (Peking University, China), Lingyang Song (Peking University, China), Zhu Han (University of Houston, USA), Bingli Jiao (Peking University, China) and Zhongshan Zhang (NEC Research Laboratories, China)*

**Systematic Construction and Verification Methodology for LDPC Codes**

*Jing Cui (Shanghai Jiao Tong University, China), Yixiang Wang (Shanghai Jiao Tong University, China) and Hui Yu (Shanghai Jiao Tong University, China)*

**7:00pm – 9:00pm Conference Banquet**

**Saturday, August 13, 2011**

**9:00am – 10:20 am Session 7: Scheduling and Resource Allocation**

**Chair: Peng-Jun Wan (Illinois Institute of Technology, USA)**

**Maximizing Capacity with Power Control under Physical Interference Model in Simplex Mode**

*Peng-Jun Wan (Illinois Institute of Technology, USA)*

**Two Sides Approximation Algorithms for Channel Assignments in Wireless Network**

*Chuanhe Huang (Wuhan University, China), Jia Ye (Wuhan University, China) and Bin Fu (University of Texas-Pan American, USA)*

**A Novel Channel Assignment Scheme for Multi-radio Multi-channel Wireless Mesh Networks**

*Tao Jing (Beijing JiaoTong University, China), Hongbin Shi (Beijing JiaoTong University, China), Yan Huo (Beijing JiaoTong University, China), Liran Ma (Texas Christian University, USA) and Zhipeng Cai (Georgia State University, USA)*

**Load Balancing Access Point Association Schemes for IEEE 802.11 Wireless Networks**

*Yuan Le (The George Washington University, USA), Liran Ma (Texas Christian University, USA), Hongjun Yu (The George Washington University, USA), Xiuzhen Cheng (The George Washington University, USA), Yong Cui (Tsinghua University, China), Mznah A. Al-Rodhaan (Saudi Arabia) and Abdullah Al-Dhelaan (Saudi Arabia)*

**10:20am – 10:40am Break**

**10:40am – 12:00pm Session 8: Routing Protocol and Energy Control**

**Chair: Hongwei Zhang (Wayne State University, USA)**

**Minimum Delay Routing in Multihop Wireless Networks**

*Maggie Cheng (Missouri University of Science and Technology), Xuan Gong (Missouri University of Science and Technology), and Peng-Jun Wan (Illinois Institute of Technology, USA)*

**A Survey of Routing Protocols and Simulations in Delay-Tolerant Networks**

*Mengjuan Liu (University of Electronic Science and Technology, China), Yan Yang (University of Electronic Science and Technology, China), and Zhiguang Qin (University of Electronic Science and Technology, China)*

**Experimental Analysis of Link Estimation Methods in Low Power Wireless Networks**

*Hongwei Zhang (Wayne State University, USA)*

**Golay Code Clustering for Mobility Behavior Similarity Classification in Pocket Switched Networks**

*Hongjun Yu (The George Washington University, USA), Simon Berkovich (The George Washington University, USA), Tao Jing (Beijing JiaoTong University, China) and Dechang Chen (Uniformed Services University of the Health Sciences, USA)*

**12:00pm – 1:30pm Lunch**

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