2011 11th International Symposium on Communications & Information Technologies

(ISCIT 2011)

Hangzhou, China
12-14 October 2011

TECHNICAL SESSIONS

Session 1: Coding & Decoding

No.1 Meeting Room, Hangzhou Jinxi Hotel
Wednesday, October 12, 14:00-15:30
Chair: Jinsong Wu, Bell Laboratories

S1-1: Three-Dimensional Combined Diversity Coding and Error Control Coding: Code Design and Diversity Analysis¨¨¨¨+¨¨¨¨

Jinsong Wu (Bell Laboratories, China); Pei Xiao (University of Surrey, United Kingdom); Qingchun Chen (Southwest Jiaotong University, China); Steven D Blostein (Queen's University, Canada)

S1-2: An Improved LDPC Decoding Algorithm Based on Min-sum Algorithm ¨¨¨¨¨&*

Yue Cao (Northeastern University, China)

S1-3: An Improved Decoding Algorithm for Refined Clipping Noise in IDMA System with Limited Peak Transmission¨¨¨¨¨¨*(

Yier Yan (Guangzhou University, China); Xueqin Jiang (Chonbuk National University, China); Moon Ho Lee (Chonbuk National University, Korea)

S1-4: A Simple Algorithm for a High Code Rate LDPC Parity Matrix Design¨¨¨¨) (*

Sekson Timakul (King Mongkut's Institute of Technology Ladkrabang, Thailand); Somsak Choomchuay (King Mongkut's Institute of Technology Ladkrabang, BKK, Thailand)

S1-5: A Secure Arithmetic Coding Algorithm Based on Integer Implementation¨¨¨¨) \$*

Yuh-Ming Huang (National Chi Nan University, China); Yin-Chen Liang (National Chi Nan University, China)

S1-6: An Auxiliary Unicode Han Character Lookup Service Based on Glyph Shape Similarity ¨¨¨¨(++

Jeng-Wei Lin (Tunghai University, China); Feng-Sheng Lin (National Taiwan University, China)

Session 2: Cognitive Radio Networks

No.2 Meeting Room, Hangzhou Jinxi Hotel
Wednesday, October 12, 14:00-15:30
Chair: David Grace, University of York

S2-1: Spectrum Sharing with Smooth Supermodular Game in Cognitive Radio Networks¨¨¨¨) ' %

Huili Cheng (Xidian University, China); Qinghai Yang (Xidian University, China); FengLin Fu (Xidian University, China); Kyung Sup Kwak (Inha University, Korea)

S2-2: Opportunistic Routing in Multi-Channel Cognitive Radio Networks¨¨¨¨¨) &\$

Changliang Zheng (Beijing University of Posts and Telecommunications & Macquarie University, China); Eryk Dutkiewicz (Macquarie University, Australia); Ren Ping Liu (CSIRO, Australia); Rein Vesilo (Macquarie University, Australia); Gengfa Fang (Macquarie University, Australia); Zheng Zhou (Beijing University of Posts and Telecommunications, China)

S2-3: Multiple Access with Multi-Dimensional Learning for Cognitive Radio in Open Spectrum ¨¨¨¨& ,

Haibin Li (University of York, United Kingdom); David Grace (University of York, United Kingdom); Paul Mitchell (University of York, United Kingdom)

S2-4: Collaborative Spectrum Sharing Based on Information Pooling for Cognitive Radio Networks with Channel Heterogeneity ¨¨¨¨(+%

Longwei Wang (Zhejiang University, China); Xianfu Chen (Zhejiang University, China); Zhifeng Zhao (Zhejiang University, China); Honggang Zhang (Zhejiang University, China)

S2-5: Distributed Consensus Algorithms for Decision Fusion Based Cooperative Spectrum Sensing in Cognitive Radio¨¨¨¨&%+

Shilian Zheng (Science and Technology on Communication Information Security Control Laboratory, China); Xiaoniu Yang (Science and Technology on Communication Information Security Control Laboratory, China); Caiyi Lou (Science and Technology on Communication Information Security Control Laboratory, China)

Session 3: Ultra-Wideband (UWB) Communications

No.3 Meeting Room, Hangzhou Jinxi Hotel
Wednesday, October 12, 14:00-15:30
Chair: Zheng Zhou, Beijing University of Posts & Telecommunications

S3-1: The Impact of Group Delay Ripple for TR UWB communication system

YongNu Jin (INHA University, Korea); Kyung Sup Kwak (Inha University, Korea)

S3-2: Cognitive UWB Spectrum Sharing and Power Allocation in a Multipath Fading Channel

Ruofan Jin (University of York, United Kingdom); David Grace (University of York, United Kingdom); Paul Mitchell (University of York, United Kingdom)

S3-3: Research on a Novel Synchronization and Detection Scheme used in Energy Detection UWB Receiver

Ying Tang (Zhejiang Shuren University, China); Yue Ruan (Zhejiang Shuren University, China)

S3-4: A Novel MIMO Relay FM-DCSK UWB System for Low-Rate and Low-Power WPAN Applications

Yi Fang (Xiamen University, China); Shaohua Hong (Xiamen University, China); Lin Wang (Xiamen University, China)

S3-5: On the Performance of Dual-hop Regenerative Cooperative Relaying of IR-UWB System

Yongjie Xu (Shandong University, China); Zhiquan Bai (Shandong University, China); Kyung Sup Kwak (Inha University, Korea)

Session 4: Energy-efficient Green Communications & Networking

No.1 Meeting Room, Hangzhou Jinxi Hotel
Wednesday, October 12, 16:00-17:30
Chair: Jacques Palicot, Supelec

S4-1: Energy Efficiency Analysis of TCP with Burst Transmission over a Wireless LAN

Masafumi Hashimoto (Osaka University, Japan); Go Hasegawa (Osaka University, Japan); Murata Masayuki (Osaka University, Japan)

S4-2: An Energy-Saving Scheme for Cellular Networks Based on Frequency Distribution

Weiting Li (University of Electronic Science and Technology of China, China); Xiaoning Zhang (UESTC, China); Le Min Li (University of Electronic Science and Technology of China, China); Sheng Wang (University of Electronic Science and Technology of China, China)

S4-3: Energy Efficient Data Gathering Based on Distributed iLT Coding

Jie Yang (Zhejiang University, China); Zhifeng Zhao (Zhejiang University, China); Honggang Zhang (Zhejiang University, China)

S4-4: Green Optical Networks with Availability Guarantee

Shufang Tan (University of Electronic Science and Technology of China, China); Xiaoning Zhang (UESTC, China); Le Min Li (University of Electronic Science and Technology of China, China); Sheng Wang (University of Electronic Science and Technology of China, China)

S4-5: Dynamic Energy Savings in Heterogeneous Cellular Networks Based on Traffic Prediction Using Compressive Sensing

Yan Wei (Zhejiang University, China); Zhifeng Zhao (Zhejiang University, China); Honggang Zhang (Zhejiang University, China)

Session 5: Cognitive Radio Networks

No.2 Meeting Room, Hangzhou Jinxi Hotel
Wednesday, October 12, 16:00-17:30
Chair: Honggang Zhang, Zhejiang University

S5-1: Multichannel Non-persistent CSMA MAC Schemes with Reinforcement Learning for Cognitive Radio Networks

Yi Tang (National University of Defense Technology, China); David Grace (University of York, United Kingdom); Tim Clarke (University of York, United Kingdom); Jibo Wei (National University of Defense Technology, China)

S5-2: Energy Efficiency Analysis of Cooperative Sensing and Sharing in Cognitive Radio Networks

Xiaorong Xu (Hangzhou Dianzi University, China); Aiping Huang (Zhejiang University, China); Jianrong Bao (Hangzhou Dianzi University, China)

S5-3: Wideband Spectrum Sensing in Modulated Wideband Converter Based Cognitive Radio System

Shilian Zheng (Science and Technology on Communication Information Security Control Laboratory, China); Xiaoniu Yang (Science and Technology on Communication Information Security Control Laboratory, China)

S5-4: Network Selection in Cooperative Cognitive Radio Networks

Jin Lai (Macquarie University, Australia); Eryk Dutkiewicz

(Macquarie University, Australia); Ren Ping Liu (CSIRO, Australia); Rein Vesilo (Macquarie University, Australia); Gengfa Fang (Macquarie University, Australia)

S5-5: Exploration vs Exploitation for Distributed Channel Access in Cognitive Radio Networks: A Multiuser Case Study¨¨¨¨'*$

Longwei Wang (Zhejiang University, China); Xianfu Chen (Zhejiang University, China); Zhifeng Zhao (Zhejiang University, China); Honggang Zhang (Zhejiang University, China)

Session 6: MIMO and Multiple-Channel Communications

No.3 Meeting Room, Hangzhou Jinxi Hotel
Wednesday, October 12, 16:00-17:30
Chair: Yves Louët, Supelec

S6-1: Evaluation of Genetic Algorithm-Based Detection for Correlated MIMO Fading Channels¨¨¨(-)

Kazi Obaidullah (University of Hokkaido, Japan); Constantin Siriteanu (Hokkaido University, Japan); Shingo Yoshizawa (Hokkaido University, Japan); Yoshikazu Miyanaga (Hokkaido University, Japan)

S6-2: Near-Maximum-Likelihood Detection in Spatially Correlated MIMO Systems using Semi-Definite Relaxation with Cutting Planes ¨¨($$

Peng Sun (Beijing University of Posts and Telecommunications, China); Xing Yang (Beijing University of posts and telecommunications, China); Daoben Li (Beijing University of posts and telecommunications, China); Li Fang (Beijing University of Posts and Telecommunications, China)

S6-3: A New Non-Coherent MIMO Scheme: Matrix Coded Modulation "MCM" ¨¨¨%&$

Ali El Arab (France Télécom, France); Jean-Claude Carlach (France Telecom, France); Maryline Hélard (INSA Rennes, France)

S6-4: MIMO Precoding Performance for Correlated and Estimated Rician Fading¨¨¨¨(,

Xiaonan Nicole Shi (Graduate School of Information Science and Techonology, Japan); Constantin Siriteanu (Hokkaido University, Japan); Shingo Yoshizawa (Hokkaido University, Japan); Yoshikazu Miyanaga (Hokkaido University, Japan)

S6-5: Coordinated Multi-Point Transmission with Limited Feedback for LTE-Advanced¨¨¨¨*,

Yan Li (Xidian University, China); Ge Jianhua (Xidian University, China); Cheng Shen (Xidian University, China);

Jing Li (State Key Lab. of Integrated Service Networks, Xidian University, China); Wang Miao (Xidian University, China)

Session 7: Signal Processing for Communications

No.2 Meeting Room, Hangzhou Jinxi Hotel
Thursday, October 13, 14:00-15:30
Chair: Pavel Loskot, Swansea University

S7-1: Passive RFID Customer Service Enhancement using Fuzzy Logic ¨¨¨¨%(

Junjie Chen (University of Texas at Arlington, USA); Jing Liang (University of Texas at Arlington, USA); Qilian Liang (University of Texas at Arlington, USA); Wei Wang (Tianjin Normal University, China); Baoju Zhang (Tianjin Normal University, China)

S7-2: Frequency Adaptive DAA Design Based on Frequency Band Encoding ¨¨¨¨&'

Yingjie Ma (Beijing University of Posts and Telecommunications, China); Zheng Zhou (Beijing University of Posts and Telecommunications, China); Ping Zeng (Beijing Electronic Science and Technology Institute, China); Yabin Ye (Huawei Technologies Duesseldorf GmbH, Germany)

S7-3: Beamforming Codebook Design and Performance Evaluation for 60GHz Wireless Communication ¨¨¨¨'$

Weixia Zou (Beijing University of Posts and Telecommunications, China); Zhifang Cui (Beijing University of Posts and Telecommunications, China); Bin Li (Beijing University of Posts and Telecommunications, China); Zheng Zhou (Beijing University of Posts and Telecommunications, China); Yucong Hu (Beijing University of Posts and Telecommunications, China)

S7-4: Reduced-order Adaptive Kalman Filtering for Dual-frequency Navigation with Carrier Phase ¨¨¨, -

Chenxi Lu (Peking University, China); Yunhua Tan (Peking University, China); Lezhu Zhou (Peking University, China)

S7-5: Effects of Wavelet Choice in Fast-Fading Channel Estimation Using Wavelet Transform-Based Deconvolution ¨¨¨¨- '

Canute Vaz (Rutgers, The State University of New Jersey, USA); David G. Daut (Rutgers University, USA)

S7-6: A New CAC Scheme based on Adaptive SINR Threshold Using Fuzzy Logic for CDMA System ¨¨¨¨%(&

Jiping Li (Huazhong Normal University, China); Shixun Wu (Huazhong Normal University, China); Shouyin Liu (Huazhong Normal University, China);

Session 8: Spectrum Access, Power Control & Interference Management

No.3 Meeting Room, Hangzhou Jinxi Hotel
Thursday, October 13, 14:00-15:30
Chair: David Grace, University of York

S8-1: Specific Primary User Sensing for Wireless Security in IEEE 802.22 Network

Zhenxing Luo (Science and Technology on Communication Information Security Control Laboratory, China); Caiyi Lou (Science and Technology on Communication Information Security Control Laboratory, China); Shichuan Chen (Science and Technology on Communication Information Security Control Laboratory, China); Shilian Zheng (Science and Technology on Communication Information Security Control Laboratory, China); Shaowei Li (Science and Technology on Communication Information Security Control Laboratory, China)

S8-2: Optimal Power Control for Secondary System based on Spectrum Sharing

Xiaoping Gao (Chongqing University of Posts and Telecommunications, China); Weijia Lei (University of Electronic Science and Technology of China, China); Xianzhong Xie (Chongqing University of Posts and Telecommunications, China)

S8-3: Analysis of Optimal Sensing Duration with Power Control and Partial Primary User's Information

Xie Xian-Zhong (Chongqing University of Posts and Telecommunications, China); Zhengchun Lv (Chongqing University of Posts and Telecommunications, China)

S8-4: Capacity Optimization of Ultra-wide Band System under the Coexistence with IEEE 802.11n

Zhuo Li (The University of Texas at Arlington, USA); Qilian Liang (University of Texas at Arlington, USA); Wei Wang (Tianjin Normal University, China); Baoju Zhang (Tianjin Normal University, China)

S8-5: Power-control-based Broadcast Scheme for Emergency Messages in VANETs

Liqi Wei (National University of Defense Technology, China); Xiaoqiang Xiao (National University of Defense Technology, China); Yingwen Chen (School of Computer, National University of Defense Technology, China); Ming Xu (National University of Defense Technology, China);

Haikuan Fan (National University of Defense Technology, China)

Session 9: OFDM Communications

No.1 Meeting Room, Hangzhou Jinxi Hotel
Thursday, October 13, 16:30-17:30
Chair: Yves Louët, Supelec

S9-1: Joint Power and Subchannel Allocation in Relay Aided Multi-cell OFDMA Networks

Miaomiao Dong (Xidian University, China); Qinghai Yang (Xidian University, China); FengLin Fu (Xidian University, China); Kyung Sup Kwak (Inha University, Korea)

PS9-2: APR Reduction with Harmony Annealing Research for OFDM Systems

Jing Gao (School of Information Science & Engineering, Northeastern University, China); Jinkuan Wang (Northeastern University, China); Bin Wang (Northeastern University, China); Xin Song (Northeastern University, China)

S9-3: Power Allocation for Nonregenerative OFDM Relay Links with Outdated Channel Knowledge

Shashika Biyanwilage (University of Western Sydney, Australia); Upul Gunawardana (University of Western Sydney, Australia); Ranjith Liyanapathirana (University of Western Sydney, Australia)

S9-4: Block Transform OFDM: A Robust Power and Bandwidth Efficient System with Improved Frequency Diversity Performance

Xiaoliang Xue (University of Wollongong, Australia); Xiaojing Huang (CSIRO ICT Centre, Australia)

Session 10: Signal Processing for Communications

No.2 Meeting Room, Hangzhou Jinxi Hotel
Thursday, October 13, 16:00-17:30
Chair: Yabo Li, Zhejiang University

S10-1: Closed-Form MSE Performance for Phase Estimation from Gaussian Reference Signals

Xiaojing Huang (CSIRO ICT Centre, Australia); Y Jay Guo (CSIRO, Australia)

S10-2: A Novel Frequency Estimation Method for Harmonic Signal in Chaos

Haixin Sun (Jilin University, China); Yaowu Shi (Jilin University, China); Xiaodong Sun (Jilin University, China)

S10-3: Method of Space Diversity Frequency Combining Based on Single Carrier Frequency Domain Equalization ¨¨¨¨¨‰ (

Zhou Feng (Harbin Engineering University, China); Wei Wang (Harbin Engineering University, China); Ran Guo (Harbin Engineering University, China)

S10-4: Robust Blind Beamforming Algorithm via the Oblique Projection Method ¨¨¨¨¨) &*

Xin Song (Engineering Optimization and Smart Antenna Institute, Northeastern University at Qinhuangdao, China); Jinkuan Wang (Northeastern University at Qinhuangdao, China); Qiuming Li (Northeastern University at Qinhuangdao, China); Jingguo Ren (Northeastern University at Qinhuangda, China); Han Wang (Qingdao Sifang Locomotive & Rolling Stock Co., Ltd, China)

S10-5: Enhanced Subspaced Approach to Interference Mitigation ¨¨¨¨¨‰

Pei Xiao (University of Surrey, United Kingdom); Wu Yin (Kuang-Chi Institute of Advanced Technology, China); Rahim Tafazolli (University of Surrey, United Kingdom); Sherif Welsen Shaker (Kuang-Chi Institute of Advanced Technology, Egypt)

Session 11: Advanced Radio Access Techniques

No.3 Meeting Room, Hangzhou Jinxi Hotel
Thursday, October 13, 16:00-17:30
Chair: Pei Xiao, University of Surrey

S11-1: Scalability of Two-Way Relay Channel Network Coding in Relay Enhanced LTE Cell ¨¨¨‰ ,

Hassan Hamdoun (Swansea University, United Kingdom); Pavel Loskot (Swansea University, United Kingdom); Timothy O'Farrell (University of Sheffield, United Kingdom)

S11-2: POCAM: Partially Overlapped Channel Assignment in Multi-Radio Multi-Channel Wireless Mesh Network ¨¨¨‰ ,

Dongsheng Wang (National University of Defence Technology, China); Pin Lv (National University of Defense Technology, China); Yingwen Chen (School of Computer, National University of Defense Technology, China); Ming Xu (National University of Defense Technology, China)

S11-3: Theoretical Analysis of Repetition Time-Switched Transmit Diversity Scheme ¨¨¨¨¨&‰‰

Pei Xiao (University of Surrey, United Kingdom); Boon Kien Khoo (Cambridge Broadband Networks, United Kingdom); Stephane Y. Le Goff (University of Newcastle upon Tyne, United Kingdom); Rahim Tafazolli (University of Surrey, United Kingdom)

S11-4: Antenna Configurations for Infrastructure-to-Vehicle Broadcast Systems on Motorways ¨¨¨¨¨) ‰

Pavel Loskot (Swansea University, United Kingdom)

S11-5: Call Admission Control Policy for Multiclass Traffic in Heterogeneous Wireless Networks ¨¨¨¨¨(&‰

Shusmita Sharna (Monash University, Australia); Mohammad Rohul Amin (Imagesoft Pty Ltd., Australia); Manzur Murshed (Monash University, Australia)

Session 12: Routing, Traffic Management and Protocol Design

No.1 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 9:00-10:30
Chair: Eryk Dutkiewicz, Macquarie University

S12-1: Dynamic Traffic Prioritization Scheme for Multihop Tactical Networks ¨¨¨¨¨' -)

Dongho Lee (Kwangwoon University, Korea); Kwangsung Ju (Kwangwoon University, Korea); Kwangsue Chung (Kwangwoon University, Korea)

S12-2: A Distributed Algorithm for Throughput Optimization with Fairness in Wireless Mesh Networks

Mingsheng Gao (Nanyang Technological University, China); Hui Jiang (Shanghai Jiao Tong University, China)

S12-3: Markov Chain Analysis of IEEE 802.11 Wireless Networks with Greedy Behavior and Heterogeneous Traffic ¨¨¨¨' +&

Xijie Liu (City University of New York, USA); Tarek Saadawi (The City University of New York/The City College, USA)

S12-4: Some Observations on Individual TCP Flows Behavior in Network Traffic Traces ¨¨¨¨¨') (

Lei Qian (The University of Auckland, New Zealand); Brian E Carpenter (The University of Auckland, New Zealand)

S12-5: An Improved Routing Protocol for Power-line Network based on AODV ¨¨¨¨¨& '

Wei Gao (Zhejiang University, China); Wenguang Jin (Zhejiang University, China); Hao Li (Zhejiang Meses

Semiconductor Technology Co., Ltd., China

S12-6: Delay-Minimized Routing Based on Bandwidth Estimation for Ad Hoc Networks ····'(%

Lan Nie (Shenzhen University, China); Juan Wang (Shenzhen University, China); Hui Wang (Shenzhen University, China); Xiaohui Lin (Shenzhen University, China)

Session 13: Advanced Signal Processing

No.2 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 9:00-10:30
Chair: Pavel Loskot, Swansea University

S13-1: Removing Impulse Noise Influence in FBMC System by Compressive Sensing ····'(* *

Guangchao Zhang (Zhejiang University, China); Zhifeng Zhao (Zhejiang University, China); Honggang Zhang (Zhejiang University, China)

S13-2: An Improved Dynamic Time Warping Algorithm Employing Nonlinear Median Filtering ¨(& +

Yuxin Zhang (Hokkaido University, Japan); Yoshikazu Miyanaga (Hokkaido University, Japan)

S13-3: A Novel Approach for Collaborative Filtering to Alleviate the New Item Cold-Start Problem ·····' - $

Dongting Sun (National University of Defense Technology, China)

S13-4: A Study of Robust Speech Recognition Using modified Running-Spectrum-Filtering ·····' %

Kyunghee Lee (Hokkaido University, Japan); Yoshikazu Miyanaga (Hokkaido University, Japan)

S13-5: Improved Roughening Algorithm and Hardware Implementation for Particle Filter Applied to Bearings-Only Tracking ·····& &,

Shaohua Hong (Xiamen University, China); Lin Wang (Xiamen University, China)

Session 14: Circuits, Devices and Testbed Implementation

No.3 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 9:00-10:30
Chair: Yoshikazu Miyanaga, Hokkaido University

S14-1: Implementation of FPGA-Based DVB-T2 Modulator with Multiple PLPs ·····+,

Sangchae Lim (Gwangju Institute of Science and Technology, Korea); Youngin Park (Gwangju Institute of Science and Technology, Korea); Eonpyo Hong (Gwangju Institute of Science and Technology, Korea); Dongsoo Har (GIST, Korea)

S14-2: High-performance FPGA Implementation of Packet Reordering for Multiple TCP Connections ·····' %

Feng Zhou (Southeast University, China); Qingsheng Hu (Southeast University in China, China)

S14-3: An Efficient Hardware Implementation of High Quality AWGN Generator Using Box-Muller Method ·····'(+

Jamshaid Malik (KTH Sweden, Sweden); Jameed Malik (NUST, Pakistan); Ahmed Hemani (Royal Institute of Technology, Sweden); Nasir-ud-din Gohar (NUST, Pakistan)

S14-4: Realization of Embedded Speech Recognition Module Based on STM32 ·····+'

Qinglin Qu (Anhui University of Science and Technology, China)

S14-5: A Supply Current Testable Register String DAC of Decoder Type ·····) ,

Masaki Hashizume (The University of Tokushima, Japan); Yutaka Hata (The University of Tokushima, Japan); Hiroyuki Yotsuyanagi (The University of Tokushima, Japan); Yukiya Miura (Tokyo Metropolitan University, Japan)

S14-6: Increment/Decrement/2's Complement/Priority Encoder Circuit for Varying Operand Lengths ·····(* $

Sai Phaneendra P (BITS-Pilani, Hyderabad Campus, India); Chetan Vudadha (BITS-Pilani, Hyderabad Campus, India); Syed Ershad Ahmed (BITS-Pilani, Hyderabad Campus, India); Veeramachaneni Sreehari (Birla Institute of Technology and Science – Pilani, Hyderabad, India); Moorthy Muthukrishnan (Birla Institute of Technology and Science – Pilani, Hyderabad, India); Mb Srinivas (Birla Institute of Technology and Science – Pilani, Hyderabad, India)

Session 15: Networks Resources Management and Protocol Design

No.1 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 11:00-12:30
Chair: Wei Wang, Zhejiang University

S15-1: Distributed Fair Resource Allocation in Wireless Multi-User Multi-Relay Networks with

Heterogeneous Rate Constraints ˙˙˙˙˙' ' '

Yanyan Shen (City University of Hong Kong, Hong Kong); Gang Feng (City University of Hong Kong, China); Bo Yang (Shanghai Jiao Tong University, China); Xinping Guan (Shanghai Jiao Tong University, China)

S15-2: Throughput Analysis of IEEE 802.15.4 MAC Protocol in the Presence of Hidden Nodes ˙˙˙' $'

Sumudu Wijetunge (University of Western Sydney, Australia); Upul Gunawardana (University of Western Sydney, Australia); Ranjith Liyanapathirana (University of Western Sydney, Australia)

S15-3: Performance Analysis of IEEE 802.15.4 MAC Protocol for WSNs in Burst Error Channels ˙&, *

Sumudu Wijetunge (University of Western Sydney, Australia); Upul Gunawardana (University of Western Sydney, Australia); Ranjith Liyanapathirana (University of Western Sydney, Australia)

S15-4: A Two-layer Traffic Clustering Framework for Network Virtualization ˙˙˙˙˙&* &

Xiaochun Wu (Zhejiang Gongshang University, China); Zhou Fengyu (National Digital Switching System Engineering Technological Research Center, China); Chunming Wu (Zhejiang University, China); Qiang Yang (Zhejiang University, China)

S15-5: Enhancing TCP RAPID Using IGI ˙˙˙˙' (-

Nopporn Kongwatmai (Chulalongkorn University, Thailand); Kultida Rojviboonchai (Chulalongkorn University, Thailand)

Session 16: Network Applications

No.2 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 11:00-12:30
Chair: Chunming Wu, Zhejiang University

S16-1: Fairness Algorithm for Renewable M2M Network ˙˙˙˙˙%

Pingping Chen (Tsinghua University, China); Xiaofeng Zhong (Tsinghua University, China); Wang Jing (Tsinghua University, China)

S16-2: Proposal of a Remote Watching System Utilizing a Smartphone and Sensors ˙˙˙˙˙' *

Kato Daichi Hiroyuki Yamagishi, Hidekazu Suzuki, Eiji Konaka, Akira Watanabe (Meijo University, Japan)

S16-3: Proposal and Implementation of a System to Remotely Watch the Health Conditions of Elderly Persons ˙˙˙˙˙(&

Hiroyuki Yamagishi, Daichi Kato, Kazunori Teshima, Hidekazu Suzuki, Osami Yamamoto, Akira Watanabe (Meijo University, Japan)

S16-4: Design of a P2P based Collaboration Platform for Underwater Acoustic Sensor Network ˙˙˙˙˙% *

Ming Xu (Shanghai Maritime University, China); Guangzhong Liu (Shanghai Maritime University, China)

S16-5: Design and Analysis of a MAC Protocol for Wireless Body Area Network Using Wakeup Radio ˙˙˙˙˙%(,

Moshaddique Al Ameen (Inha University, Korea); Niamat Ullah (Inha University, Korea); Kyung Sup Kwak (Inha University, Korea)

Session 17: Network Performance Management & Applications

No.3 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 11:00-12:30
Chair: Qiang Yang, Zhejiang University

S17-1: Mobility Performance Analysis in Wireless Network based on a Cross-layer Network Calculus Model ˙˙˙˙˙%&*

Lie Jiang (Huazhong University of Science and Technology, China); Li Yu (Huazhong University of Science & Technology, China); Zilong Chen (Huazhong University of Science and Technology, China)

S17-2: A Collision Detection Method based on Power Sensing and Time-Domain Signal Processing for Wireless LAN ˙˙˙˙˙% -

Peng Shao (NEC Communication Systems, Ltd., Japan); Akira Matsumoto (NEC Communication Systems, Ltd., Japan); Stefan Aust (NEC Communication Systems, Ltd., Japan); Tetsuya Ito (NEC Communication Systems, Ltd., Japan); Peter Davis (Telecognix Corporation, Japan)

S17-3: Distributed Anomaly Event Detection in Wireless Networks Using Compressed Sensing ˙˙˙&) $

Yu Xia (Zhejiang University, China); Zhifeng Zhao (Zhejiang University, China); Honggang Zhang (Zhejiang University, China)

S17-4: QoS Routing Algorithm Consuming Minimum Overall Timeslots for Video Streaming over MANET ˙˙˙˙&) *

Oh Chan Kwon (POSTECH, Korea); Hyung Rai Oh (POSTECH, Korea); Hwangjun Song (POSTECH (Pohang University of Science and Technology), Korea); Lee GyeongCheol (POSTECH, Korea)

S17-5: Proposal on the Concealment of the Network Topology in IPv6 ¨¨¨¨) '

Toru Kuboshiki, Hidekazu Suzuki, Akira Watanabe (Meijo University, Japan)

S17-6: Constructing (k, r)-Connected Dominating Sets for Robust Backbone in Wireless Sensor Networks ¨¨¨¨%+(

Chan Zheng (University of Electronic Science and Technology, China)

Session 18: Information & Communications Techniques Applications

No.1 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 14:00-15:30
Chair: Pei Xiao, University of Surrey

S18-1: A Closed-loop Adjusting Strategy for Wireless HART Time Synchronization ¨¨¨¨%%

Miaomiao Hua (Zhejiang University, China); Lida Dong (Zhejiang University, China)

S18-2: Performance Enhancement for Shared Relay Networks in LTE-Advanced Systems ¨¨¨¨' , (

Yiwei Yu (Macquarie University, Australia); Eryk Dutkiewicz (Macquarie University, Australia); Xiaojing Huang (CSIRO ICT Centre, Australia); Markus Dominik Mueck (Intel Mobile Communications, Germany)

S18-3: Active RFID Positioning of Vehicles in Road Traffic ¨¨¨¨&&&

Enzhan Zhang (University of Electronic Science and Technology of China, China); Weili Jiang (Chongqing University of Posts and Telecommunications, China); Kuang Yujun (University of Electronic Science and Technology of China, China); Mifta Ahmed Umer (UESTC, China)

S18-4: A Design of Smart Radio Research Platform for Universal Access in a Multi-RAT Environment ¨¨¨¨%+,

Jeounglak Ha (ETRI, Korea); Jin-Up Kim (ETRI, Korea); Youngho Jeong (ETRI, Korea)

Session 19: Network Applications

No.2 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 14:00-15:30
Chair: Minjian Zhao, Zhejiang University

S19-1: Detecting Bursts in P2P based Semi-Autonomous Underwater Acoustic Sensor Networks ¨¨¨¨&' ,

Ming Xu (Shanghai Maritime University, China); Guangzhong Liu (Shanghai Maritime University, China)

S19-2: A Dynamic Association Control Mechanism for Bus Networks ¨¨¨¨&((

Luobei Kuang (National University of Defense Technology, China); Ming Xu (National University of Defense Technology, China); Yingwen Chen (School of Computer, National University of Defense Technology, China); Bo Xie (National University of Defense Technology, China); Xiaoqiang Xiao (National University of Defense Technology, China)

S19-3: Avoiding the Evolved Node B Buffer Overflow by Using Advertisement Window Control ¨¨¨¨&* ,

Qinlong Qiu (Zhejiang University, China); Zhao Liang (China National Digital Switching System Engineering and Technological, China); Lingdi Ping (Zhejiang University, China); Chunming Wu (College of Computer Science, Zhejiang University, China); Qiang Yang (Zhejiang University, China)

S19-4: A Model for Privacy Policy Agreement in Online Services ¨¨¨¨' ('

Bhume Bhumiratana (King Monkut's University of Technology, Thonburi, Thailand)

S19-5: Measuring Anonymity Using Network Coordinate Systems ¨¨¨¨' **

Thorsten Ries (University of Luxembourg, Luxemburg); Radu State (University of Luxembourg, Luxemburg); Thomas Engel (University of Luxemburg, Luxemburg)

S19-6: An Efficient DOA Tracking Algorithm for Coherently Distributed Source ¨¨¨¨(, %

Yinghua Han (Northeastern University at Qinhuangdao, China); Jinkuan Wang (Northeastern University, China); Qiang Zhao (Northeastern University, China); Jing Gao (Northeastern University at Qinhuangdao, China)

Session 20: Information & Communications Techniques Applications

No.3 Meeting Room, Hangzhou Jinxi Hotel
Friday, October 14, 14:00-15:30
Chair: Yang Du, Zhejiang University

S20-1: New Continuous Speech Feature Adjustment for a Noise-Robust CSR System ¨¨¨¨$-

Yiming Sun (Hokkaido University, Japan)

S20-2: DoA Based Positioning Employing Uniform Circular Arrays ¨¨¨' &,

Kewei Xu (Macquarie University, Australia); Y Jay Guo (CSIRO, Australia); Xiaojing Huang (CSIRO ICT Centre, Australia); Eryk Dutkiewicz (Macquarie University, Australia)

S20-3: Similar Vulnerability Query Based on Text Mining ¨¨¨' ' -

Jin Yi (China Information Technology Security Evaluation Center, China); Runpu Wu (China Information Technology Security Evaluation Center, China); Juan Li (China Information Technology Security Evaluation Center, China); Qi Xiong (China Information Technology Security Evaluation Center, China); Fajiang Yu (Wuhan University, China); Tao Peng (Jetway Information Security Industry Co., Ltd., China); Zhenyu Yang (Wuhan University, China); Bo Han (Wuhan University, China)

S20-4: Economic Dispatch Model with Wind Generation

Mingsheng Gao (Nanyang Technological University, China); Hui Jiang (Shanghai Jiao Tong University, China)

S20-5: The 'Neural Space': a Physiologically Inspired Noise Reduction Strategy Based on Fractional Derivatives ¨¨¨) $$

Jinqiu Sang (University of Southampton, United Kingdom); Hongmei Hu (Southampton University, United Kingdom); Ian Winter (University of Cambridge, United Kingdom); Matthew Wright (University of Southampton, United Kingdom); Stefan Bleeck (University of Southampton, United Kingdom)

S20-6: A New Image Authentication Scheme Using Bit Plane Feature of Wavelet Coefficient ¨¨¨) %$

Kasemsuk Sepsirisuk (King Mongkut's Institute of Technology Ladkrabang, Thailand)

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