IEEE GLOBECOM 2012 TECHNICAL PROGRAM

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room A

AHSN01: Ad Hoc Routing
Chair: Yifeng Zhou (Communications Research Centre, Canada)

Quasi-greedy Geographic Routing in Wireless Networks
Jung-Tsung Tsai, Yen-Cheng Li (National Taiwan Normal University, Taiwan)

A New Routing Scheme Based on Adaptive Selection of Geographic Directions
Zimu Yuan, Wei Li (Chinese Academy of Sciences, China)
Shuhui Yang (Purdue University Calumet, USA)

Automatic Routing Using Multiple Prefix Labels
Rumi Ghosh, Jj Garcia-Luna-Aceves (University of California, Santa Cruz, USA)

Throughput Capacity of the Group-Based Two-Hop Relay Algorithm in MANETs
Jiajia Liu (Tohoku University, Japan)
Xiaohong Jiang (Future University-Hakodate, Japan)
Hiroki Nishiyama, Nei Kato (Tohoku University, Japan)

Energy-Efficient Routing through Weighted Load Balancing
Donovan Bradley, RN Uma (North Carolina Central University, USA)

Ad Hoc Network Metrics: Which is Best?
Qian Zhang (Ohio University, USA)
David W. Matolak (University of South Carolina, USA)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room B

AHSN10: VANETs I
Chair: Falko Dressler (University of Innsbruck, Austria)

HHLS: A Hybrid Routing Technique for VANETs
Marwane Ayaida (University of Reims Champagne-Ardenne / CReSTIC, France)
Mohtadi Barhoumi, Hacene Fouchal (Université de Reims Champagne-Ardenne, France)
Yacine Ghamri-Doudane (ENSIIE / Université Paris-Est (LIGM Lab), France)
Lissan Afilal (CReSTIC, France)

An Intersection Collision Avoidance System for Scooters Utilizing Non-Line-Of-Sight Links
Po-Jui Chiu, Hsin-Mu Tsai (National Taiwan University, Taiwan)

Wireless Connection Steering for Vehicles
Tarik Taleb (NEC Europe Ltd., Germany)
Adlen Ksentini (University of Rennes 1 / IRISA Lab, France)
Fethi Filali (QMIC, Qatar)

A Low Complexity Clustering Approach Enabling Context Awareness in Sparse VANETs
Francesco Chiti, Romano Fantacci, Riccardo Mastandrea (University of Florence, Italy)

Infotainment traffic flow dissemination in an urban VANET

Pierpaolo Salvo, Mario De Felice, Francesca Cuomo, Andrea Baiocchi
(University of Roma Sapienza, Italy)

A Distributed Infrastructure-Based Congestion Avoidance Protocol for VANETs
Maram Bani Younes (University of Ottawa, Canada)
Graciela Roman Alonso (Universidad Autonoma Metropolitana-Izt, Mexico)
Azzedine Boukerche (University of Ottawa, Canada)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room C

CISS01: Social Network Security
Chair: Sushmita Ruj (IIT-Indore, India)

Searching in the Dark: A Framework for Authenticating Unknown Users in Online Social Networks
Lingjun Li, Xinxin Zhao, Guoliang Xue (Arizona State University, USA)

Enabling Collaborative Data Sharing in Google+
Hongxin Hu (Delaware State University, USA)
Gail-Joon Ahn, Jan Jorgensen (Arizona State University, USA)

Gmatch: Secure and Privacy-Preserving Group Matching in Social Networks
Boyang Wang (Xidian University, China)
Baochun Li (University of Toronto, Canada)
Hui Li (Xidian University, China)

User-Centric Private Matching for eHealth Networks - A Social Perspective
Linke Guo, Xinxin Liu, Yuguang Fang, Xiaolin Li (University of Florida, USA)

PriMatch: Fairness-aware Secure Friend Discovery Protocol in Mobile Social Network
Muyuan Li, Zhaoyu Gao, Suguo Du, Haojin Zhu (Shanghai Jiao Tong University, China) Mianxiong Dong (University of Aizu, Japan)
Kaoru Ota (Tohoku University, Japan)

Digging up Social Structures from Documents on the Web
Eleni Gessiou (Polytechnic Institute of New York University, USA)
Stamatis Volanis (University of Crete, Greece)
Elias Athanasopoulos (Columbia University, USA)
Evangelos Markatos (ICS-FORTH, Greece)
Sotiris Ioannidis (Foundation for Research and Technology, Hellas, Greece)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room D

CogRN01: CRN Applications and Implementation
Chair: Chih-Wei Huang (National Central University, Taiwan)

Rateless Code Based Opportunistic Multicasting over Cognitive Radio Networks
Pavol Polacek, Chih-Wei Huang (National Central University, Taiwan)

Multicast Throughput Optimization and Fair Spectrum Sharing in Cognitive Radio Networks
Miao Pan (Texas Southern University, USA)
Yan Long (Xidian University, China)
Hao Yue, Yuguang Fang (University of Florida, USA)
Hongyan Li (Xidian University, China)

Multi-path Routing In Cognitive Radio Networks for Multimedia Communication using Sample Division Multiplexing
Ansuman Bhattacharya, Sasthi Ghosh, Bhabani Sinha (Indian Statistical Institute, India)

Procedure to Build Interference Map in Peer to Peer IEEE 802.22 Networks
Huaizhou Shi, Venkatesha Prasad, Vijay Sathyanarayana Rao, Ignas G.M.M. Niemegeers
(Delft University of Technology, Netherlands)

Concept Design and Performance Evaluation of a Parametrizable Cognitive Radio Engine
Christian Kocks, Alexander Viessmann, Guido Bruck, Peter Jung
(Universität Duisburg-Essen, Germany)

A Polarization Enabled Cooperation Framework for Cognitive Radio Networking
Bin Cao (Harbin Institute of Technology / University of Waterloo, China)
Jon Mark (University of Waterloo, Canada)
Qinyu Zhang (Harbin Institute of Technology, China)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: Magic Kingdom Ballroom 4

CQ01: Energy Saving in Communication Networks and Equipment
Chair: Chonggang Wang (InterDigital Communications, USA)

Dynamic Energy Efficient Distance-Aware Base Station Switch On/Off Scheme for LTE-Advanced
Alexandra Bousia, Elli Kartsakli, Luis Alonso (Universidad Politecnica de Catalunya, Spain) Christos
Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)

Modeling and Performance Analysis of Device Discovery in Bluetooth Low Energy Networks
Jia Liu (Nokia & Beijing University of Posts and Telecommunications, China)
Canfeng Chen (Nokia Research Center, China)
Yan Ma (Bejing University of Posts and Telecommunications, China)

QoS-Aware BS Switching and Cell Zooming Design for OFDMA Green Cellular Networks
Long Bao Le (INRS, University of Quebec, Canada)

Improved Energy Detection with Interference Cancellation in Heterogeneous Cognitive Wireless Networks
Zeyang Dai (University of Electronic Science and Technology of China, China)
Jian Liu, Keping Long (University of Science and Technology Beijing, China)

Energy Saving through a Learning Framework in Greener Cellular Radio Access Networks
Rongpeng Li, Zhifeng Zhao (Zhejiang University, China)
Xianfu Chen (VTT Technical Research Centre of Finland, Finland)
Honggang Zhang (Zhejiang University, China)

Energy-Efficient Peer Selection Mechanism for BitTorrent Content Distribution
Ahmed Lawey, Taisir El-Gorashi, Jaafar Elmirghani (University of Leeds, UK)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room G

CSSM01: Multimedia Quality of Service
Chair: Yingsong Huang (Auburn University, USA)

Bandwidth Management for Mobile Media Delivery

Sanjeev Mehrotra (Microsoft Research, USA)
Hua Chen (University of Maryland, College Park, USA)
Sourabh Jain (University of Minnesota, USA)
Jin Li (Microsoft, USA)
Baochun Li (University of Toronto, Canada)
Minghua Chen (Chinese University of Hong Kong, China)

Achieving Quality of Service via Packet Distribution Shaping
Duong Nguyen-Huu, Thai Duong, Thinh Nguyen (Oregon State University, USA)

Quality-optimized Downlink Scheduling for Video Streaming Applications in LTE Networks
Xiaolin Cheng, Prasant Mohapatra (University of California, Davis, USA)

Optimizing Content Retrieval Delay for LT-based Distributed Cloud Storage Systems
Haifeng Lu, Chuan Heng Foh, Yonggang Wen, Jianfei Cai
(Nanyang Technological University, Singapore)

On Multi-stream Multi-source Multicast Routing
Yuh-Rong Chen, Sridhar Radhakrishnan, Sudarshan Dhall, Suleyman Karabuk
(University of Oklahoma, USA)

Achieving Quality of Service with Adaptation-based Programming for Medium Access Protocols
Pingan Zhu, Jervis Pinto, Thinh Nguyen, Alan Fern (Oregon State University, USA)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room H

CT01: Theoretical Aspects of Communication Systems
Chair: Aravind Kailas (University of North Carolina, Charlotte, USA)

General BER Expression for One-Dimensional Constellations
Mikhail Ivanov, Fredrik Brännström (Chalmers University of Technology, Sweden)
Alex Alvarado (University of Cambridge, UK)
 Erik Agrell (Chalmers University of Technology, Sweden)

New Approximations to the Lognormal Characteristic Function
Seyed Ali Saberali, Norman C. Beaulieu (University of Alberta, Canada)

Outage Minimization in Fading Channels: Optimal Power Allocation with Channel Distribution Information Known at Transmitter
Chuan Huang (Texas A&M University, USA)
Rui Zhang (National University of Singapore, Singapore)
Shuguang Cui (Texas A&M University, USA)

On the Outage Throughput Capacity of Hybrid Wireless Networks over Fading Channels
Xin Wang, Qilian Liang (University of Texas, Arlington, USA)

Coverage Probability of Uplink Cellular Networks
Harpreet S Dhillon, Thomas Novlan, Jeffrey Andrews (University of Texas, Austin, USA)

Transmission Capacities for Overlaid Wireless Networks with Spatial Multiplexing
Xianling Wang, Xin Zhang, Jian Geng
(Beijing University of Posts and Telecommunications, China)
Xiaoyi Liu (University of California, Irvine, USA)
Dacheng Yang (Beijing University of Posts and Telecommunications, China)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room J

NGNI01: Data Centers and Cloud Computing
Chair: Stefano Giordano (University of Pisa, Italy)

FlatNet: Towards A Flatter Data Center Network
Dong Lin, Yang Liu, Mounir Hamdi, Jogesh Muppala
(Hong Kong University of Science and Technology, Hong Kong)

Efficient VM Placement with Multiple Deterministic and Stochastic Resources in Data Centers
Hao Jin, Deng Pan, Jing Xu, Niki Pissinou (Florida International University, USA)

Network Resource Allocation in Data Center Interconnection with Anycast Service Provisioning
Molka Gharbaoui (Scuola Superiore Sant'Anna, Italy)
Barbara Martini (CNIT, Italy)
Walter Cerroni (University of Bologna, Italy)
Piero Castoldi (Scuola Superiore Sant'Anna, Italy)
Franco Callegati (Universita` di Bologna, Italy)

Optimal Provisioning for Elastic Service Oriented Virtual Network Request in Cloud Computing
Gang Sun (University of Electronic Science and Technology of China, China)
Vishal Anand (State University of New York, USA)
Hong-Fang Yu, Dan Liao, Le Min Li
(University of Electronic Science and Technology of China, China)

Torii-HLMAC: A Distributed, Fault-tolerant, Zero Configuration Fat Tree Data Center Architecture with Multiple Tree-based Addressing and Forwarding
Elisa Rojas, Guillermo Ibáñez (UAH Alcala de Henares, Spain)

Energy Models driven Green Routing for Data Centers
Shivashis Saha, Jitender Singh Deogun, Lisong Xu (University of Nebraska-Lincoln, USA)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: Castle A

ONS01: Physical Layer Issues & Technologies
Chairs: Filippo Cugini (CNIT, Italy)
Keren Bergman (Columbia University, USA)

Error Rate Analysis of Subcarrier Intensity Modulation Using Rectangular QAM in Gamma-Gamma Turbulence
Md. Zoheb Hassan, Xuegui Song, Julian Cheng (University of British Columbia, Canada)

Constellation Optimization for Coherent Optical Channels Distorted by Nonlinear Phase Noise
Christian Häger, Alexandre Graell i Amat (Chalmers University of Technology, Sweden)
Alex Alvarado (University of Cambridge, UK)
Erik Agrell (Chalmers University of Technology, Sweden)

Experimenting Push-Pull Defragmentation in Flexible Optical Networks with Direct Detection
Filippo Cugini (CNIT, Italy)
Francesco Paolucci, Gianluca Berrettini, Marco Secondini, Francesco Fresi, Gianluca Meloni, Nicola Sambo (Scuola Superiore Sant'Anna, Italy)
Luca Potì (Consorzio Nazionale Interuniversitario per le Telecomunicazioni, Italy)

Piero Castoldi (Scuola Superiore Sant'Anna, Italy)

Contention Resolution Using Parametric Wavelength Converters: Performance and Cost Analysis
Michele Savi, Harald Øverby, Norvald Stol
(Norwegian University of Science and Technology, Norway)
Carla Raffaelli (University of Bologna, Italy)

Cross-Layer Enabled Translucent Optical Network with Real-time Impairment Awareness
Oscar Pedrola (Universitat Politècnica de Catalunya, Spain)
Balagangadhar G. Bathula, Michael Wang, Atiyah Ahsan (Columbia University, USA)
Davide Careglio (Universitat Politecnica de Catalunya, Spain)
Keren Bergman (Columbia University, USA)

Spectrum-Efficient Coherent Optical Zero Padding OFDM for Future High-Speed Transport Networks
Linglong Dai, Zhaocheng Wang (Tsinghua University, China)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: Castle B

SAC-GNCS1: Green Systems, Designs and Applications
Chair: Christos Verikoukis
(Telecommunications Technological Centre of Catalonia, Spain)

Risk-aware Day-ahead Scheduling and Real-time Dispatch for Plug-in Electric Vehicles
Lei Yang, Junshan Zhang, Dajun Qian (Arizona State University, USA)

Dynamic Energy-Efficient Resource Allocation in Cognitive Heterogeneous Wireless Networks with the Smart Grid
Shengrong Bu, F. Richard Yu (Carleton University, Canada)

Green Firewall: an Energy-Efficient Intrusion Prevention Mechanism in Wireless Sensor Network
Ping Yi (Shanghai Jiao Tong University, China)
Ting Zhu (State University of New York, Binghamton, USA)
Qingquan Zhang (University of Minnesota, USA)
Yue Wu, Jianhua Li (Shanghai Jiao Tong University, China)

N-player Medium Access Game for Wireless Data Dissemination
Angelos Antonopoulos, Christos Verikoukis
(Telecommunications Technological Centre of Catalonia, Spain)

Energy-Aware Planning and Management of Wireless Mesh Networks
Silvia Boiardi, Antonio Capone (Politecnico di Milano, Italy)
Brunilde Sansò (Ecole Polytechnique de Montreal, Canada)

An Efficient Energy Curtailment Scheme for Outage Management in Smart Grid
Wayes Tushar (Australian National University, Australia)
Jian (Andrew) Zhang (CSIRO ICT Centre, Australia)
David B. Smith (National ICT Australia, Australia)
H. Vincent Poor (Princeton University, USA)
Glenn Platt (CSIRO Energy Technology, Australia)
Salman Durrani (Australian National University, Australia)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: Monorail A

SPC01: MIMO I
Chair: Shigeru Shimamoto (Waseda University, Japan)

Integer-Forcing Linear Receiver Design over MIMO Channels
Lili Wei, Wen Chen (Shanghai Jiao Tong University, China)

Error Resilient MIMO Detector for Memory-Dominated Wireless Communication Systems
Muhammad S. Khairy, Chung-An Shen, Ahmed M. Eltawil, Fadi J Kurdahi
(University of California, Irvine, USA)

Enhanced QRD-M Algorithm for Soft-Output MIMO Detection
Tae-Kyoung Kim, Hyun-Myung Kim, Gi-Hong Im
(Pohang University of Science and Technology, Korea)

Modeling and Performance Evaluation for Dual-Polarized Ricean MIMO Channels
Adrian Ispas, Xitao Gong (RWTH Aachen University, Germany)
Christian Schneider (Ilmenau University of Technology, Germany)
Gerd H. Ascheid (RWTH Aachen University, Germany)
Reiner S. Thomä (Ilmenau University of Technology, Germany)

Device-to-Device (D2D) Communication in MU-MIMO Cellular Networks
James C. F. Li, Ming Lei (NEC Laboratories, China)
Feifei Gao (Tsinghua University, China)

Iterative Detection and Decoding Using Approximate Bayesian Theorem Based PDA Method over MIMO
Nakagami-m Fading Channels
Shaoshi Yang, Lajos Hanzo (University of Southampton, UK)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: Monorail B

SPC02: Compressed Sensing
Chair: Claudio da Silva (Samsung, USA)

Compressed Sensing with Rank Deficient Dictionaries
Thomas L Hansen, Daniel H. Johansen, Peter Jørgensen, Kasper F Trillingsgaard, Thomas Arildsen,
Karsten Fyhn, Torben Larsen (Aalborg University, Denmark)

An Energy-Efficient Cooperative Spectrum Sensing Scheme for Cognitive Radio Networks
Nan Zhao (Dalian University of Technology, China)
F. Richard Yu (Carleton University, Canada)
Hongjian Sun, Arumugam Nallanathan (King's College London, UK)

Random Circulant Orthogonal Matrix based Analog Compressed Sensing
Xianjun Yang (Beijing University of Post and Telecommunication, China)
Y Jay Guo (CSIRO, Australia)
Qimei Cui, Xiaofeng Tao (Beijing University of Posts and Telecommunications, China)
Xiaojing Huang (CSIRO ICT Centre, Australia)

Compressive Sensing Framework for Signal Processing in Heterogeneous Cellular Networks
Niranjan M. Gowda, Arun Pachai Kannu (Indian Institute of Technology Madras, India)

Likelihood-Based Spectrum Sensing of OFDM Signals in the Presence of Tx/Rx I/Q Imbalance
Ahmed ElSamadouny, Ahmad Abdulrahman Gomaa, Naofal Al-Dhahir
(University of Texas, Dallas, USA)

Distributed Multiple-Access for Wireless Communications: Compressed Sensing with Multiple Antennas
Raymond Hall Yip Louie, Wibowo Hardjawana, Yonghui Li, Branka Vucetic
(University of Sydney, Australia)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: Monorail C

WC01: Resource Allocation
Chair: Giovanni Giambene (University of Siena, Italy)

Wireless Information and Power Transfer: Architecture Design and Rate-Energy Tradeoff
Xun Zhou, Rui Zhang (National University of Singapore, Singapore)
Chin Keong Ho (Institute for Infocomm Research, A*STAR, Singapore)

Resource Allocation for Multipoint-to-Multipoint Orthogonal Multicarrier Division Duplexing
Poramate Tarasak (Institute for Infocomm Research, Singapore)
Hlaing Minn (University of Texas, Dallas, USA)

Delay Quality-of-Service Driven Resource Allocation for Relay-Based OFDMA Cognitive Radio Networks
Jun Yuan, Qiao Wang (Southeast University, China)

Optimal Power Allocation and AP Deployment in Green Wireless Cooperative Communications
Xiaoxia Zhang, Zhongming Zheng (University of Waterloo, Canada)
Jing Liu (Shanghai Jiao Tong University, China)
Sherman Shen, Liang-Liang Xie (University of Waterloo, Canada)

Joint Spectrum and Power Efficiencies Optimization for Statistical QoS Provisionings in Wireless Networks
Wenchi Cheng (Xidian University, China)
Xi Zhang (Texas A&M University, USA)
Hailin Zhang (Xidian University, China)

Power Control and Scheduling for Joint Detection Cooperative Cellular Systems
Fabian Diehm, Guo-Xiong Chen, Gerhard Fettweis (Technische Universität Dresden, Germany)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: Magic Kingdom Ballroom 1

WC02: Modulation and Coding I
Chair: Yabo Li (Zhejiang University, China)

Exploring Controllable Deterministic Bits for LDPC Iterative Decoding in WiMAX Networks
Bo Rong (CRC, Canada)
Yin Xu (ShangHai Jiao Tong University, China)
Yiyan Wu, Gilles Gagnon (Communications Research Centre, Canada)
Bo Liu, Gui Lin, WenJun Zhang (Shanghai JiaoTong University, China)

Turbo Trellis-Coded Spatial Modulation
Calin Vladeanu (University Politehnica of Bucharest, Romania)

Adaptive Demodulation for Raptor Coded Multilevel Modulation Schemes over AWGN Channel
Kadir Turk (Karadeniz Technical University, Turkey)
Pingyi Fan (Tsinghua University, China)

Structure-based Decoding for Hierarchically Modulated, LDPC coded Signals
Zixia Hu (University of Washington, USA)
Hui Liu (Shanghai JiaoTong University, China)

Linear Programming based Joint Detection of LDPC coded MIMO systems
Yong Li, Lin Wang (Xiamen University, China)
Zhi Ding (UC Davis, USA)

Structure Optimization of Spatial Modulation over Correlated Fading Channels
Xiping Wu, Sinan Sinanović (University of Edinburgh, UK)
Marco Di Renzo (French National Center for Scientific Research, France)
Harald Haas (University of Edinburgh, UK)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: Castle C

WC03: UWB I
Chair: Davide Dardari (University of Bologna, Italy)

Optimal Integration Time for Energy-Detection PPM UWB Systems
Jose M. Almodovar-Faria, Janise McNair (University of Florida, USA)

Robust Pre-Equalization for Pre-Rake UWB Systems with Spectral Mask Constraints
Zahra Ahmadian, Lutz Lampe (University of British Columbia, Canada)

Enhanced Bayesian Compressive Sensing for Ultra-Wideband Channel Estimation
Xiantao Cheng (University of Electronic Science and Technology of China, Taiwan)
Yong Liang Guan (Nanyang Technological University, Singapore)
Guangrong Yue, Shaoqian Li
(University of Electronic Science and Technology of China, Taiwan)

The Correlation Properties of Subchannel Fading for Non-continuous Carrier Aggregation based on Indoor Ultra-Wideband Measurement
Ruonan Zhang (Northwestern Polytechnical University, China)
Yang Zhang, Zhimeng Zhong, Stan X. Lu (Huawei Technology Company, China)

On the Nonlinear Teager-Kaiser Operator for Energy Detection Based Impulse Radio UWB Receivers
Zhimeng Xu (Fuzhou University, China)
Hong Nie (University of Northern Iowa, USA)
Zhizhang (David) Chen (Dalhousie University, Canada)
Hassan Khani (University of Northern Iowa, USA)
Lun Yu (Fuzhou University, China)

Low Complexity Suboptimal Monobit Receiver for Transmitted-Reference Impulse Radio UWB Systems
Hassan Khani, Hong Nie (University of Northern Iowa, USA)
Weidong Xiang (University of Michigan, Dearborn, USA)
Zhimeng Xu (Fuzhou University, China)
Zhizhang Chen (Dalhousie University, Canada)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room I

WN01: Femto-cell Networks
Chair: Ping Zhou (Qualcomm, USA)

So near, and yet so far: Managing 'Far-away' Interferers in Dense Femto-cell Networks
Huiguang Liang, Hyong Kim (Carnegie Mellon University, USA)
Wai-Leong Yeow (Docomo Labs / Institute for Infocomm Research, USA)
Hwee Pink Tan (Institute for Infocomm Research, Singapore)

QoS-based Power Control and Resource Allocation in OFDMA Femtocell Networks
Abbas Antoun Hatoum, Rami Langar (University Pierre et Marie Curie - Paris 6, France)
Nadjib Aitsaadi (University of Paris-Est Creteil, France)
Raouf Boutaba (University of Waterloo, Canada)
Guy Pujolle (University Pierre et Marie Curie - Paris 6, France)

Load Balancing in Open Access Femtocell Based Two-Tier Cellular Networks
Dongmyoung Kim, Sunghyun Choi (Seoul National University, Korea)

Prediction Handover Trigger Scheme for Reducing Handover Latency in Two-tier Femtocell Networks
Hongjia Li (Chinese Academy of Sciences /
Beijing University of Posts and Telecommunications, China)
Song Ci (University of Nebraska-Lincoln, USA)
Zejue Wang (Chinese Academy of Sciences, China)

LOGA: Local Grouping Architecture for Self-Healing Femtocell Networks
Wei Wang, Jin Zhang, Qian Zhang
(Hong Kong University of Science and Technology, Hong Kong)

A Complete Femtocell Network Modeling and Development Platform
Elias Chavarria Reyes, David M Gutierrez-Estevez, Ian F. Akyildiz
(Georgia Institute of Technology, USA)

Tuesday, 4 December 2012 • 10:00 – 12:00
Room: North Exhibit Hall Room F

WN02: Smart Grid Communications
Chair: Hossam Afifi (Institut Telecom / Paris South, France)

Decentralized Inverter Control in Microgrids Based on Power Sharing Information through Wireless Communications
Hao Liang, Bong Jun Choi, Weihua Zhuang, Sherman Shen (University of Waterloo, Canada)

A Novel Demand Control Policy for Improving Quality of Power Usage in Smart Grid
Mostafa M. Fouda, Zubair Md. Fadlullah, Nei Kato (Tohoku University, Japan)
Akira Takeuchi, Yousuke Nozaki (NTT Energy and Environment Systems Laboratories, Japan)

Adaptive Electricity Scheduling with Quality of Usage Guarantees in Microgrids
Yingsong Huang, Shiwen Mao (Auburn University, USA)

Cognitive Transmission based on Data Priority Classification in WSNs for Smart Grid
Chunhua Qian, Zhe Luo, Xiaohua Tian, Xinbing Wang (Shanghai Jiaotong University, China)
Mohsen Guizani (QU, USA)

Traffic Scheduling for Smart Grid in Rural Areas with Cognitive Radios
Jiazhen Zhou (University of Wisconsin, Whitewater, USA)
Rose Qingyang Hu (Utah State University, USA)
Yi Qian (University of Nebraska–Lincoln, USA)

Tuesday, 4 December 2012 • 13:45 – 15:30

Room: North Exhibit Hall Room A

AHSN02: Data Mules and Mobile Sinks
Chair: Jun Tao (Southeast University, China)

Smooth Path Construction for Data Mule Tours in Wireless Sensor Networks
Andrew Wichmann, Justin Chester, Turgay Korkmaz (University of Texas, San Antonio, USA)

Delay-Tolerant Data Gathering in Energy Harvesting Sensor Networks with a Mobile Sink
Xiaojiang Ren, Weifa Liang (Australian National University, Australia)

Traffic-Attracted Mobile Relay Deployment in a Wireless Ad Hoc Network
Fang-Jing Wu, Hsiu-Chi Hsu, Yu-Chee Tseng (National Chiao-Tung University, Taiwan)

Energy Conservation in Sensor Network Data Ferrying: A Reinforcement Metalearning Approach
Ben Pearre, Timothy Brown (University of Colorado, USA)

Sweeping and Active Skipping in Wireless Sensor Networks with Mobile Elements
Jun Tao (Southeast University, China)
Liang He (Singapore University of Technology and Design, Singapore)
Yanyan Zhuang, Jianping Pan, Maryam Ahmadi (University of Victoria, Canada)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: North Exhibit Hall Room B

AHSN11: Network Coding
Chair: Hacene Fouchal (Université de Reims Champagne-Ardenne, France)

Restricted Isometry Property in Quantized Network Coding of Sparse Messages
Mahdy Nabaee, Fabrice Labeau (McGill University, Canada)

Modeling the Transmission of Coded Packets for Coding Aware Routing
Diego Passos, Celio Albuquerque (Universidade Federal Fluminense, Brazil)

TCP VON: Joint Congestion Control and Online Network Coding for Wireless Networks
Wei Bao (University of Toronto, Canada)
Vahid Shah-Mansouri, Vincent W.S. Wong, Victor CM Leung
(University of British Columbia, Canada)

Hybrid Network-Erasure Coding Protection of Multi-Source, Multi-Sink Multicast Sessions in WSNs
Suhas Shetty, Ahmed E. Kamal (Iowa State University, USA)

MWNCast: Cooperative Multicast based on Moving Window Network Coding
Fei Wu (Zhejiang University, China)
Cunqing Hua (Shanghai Jiao Tong University, China)
Hangguan Shan, Aiping Huang (Zhejiang University, China)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: North Exhibit Hall Room C

CISS02: Security in Cloud Computing and Storage
Chair: Xiaolin Li (University of Florida, USA)

An Optimal Scheduling for File Dissemination under a Full Binary Tree of Trust Relationship
Chin-Fu Ku (Academia Sinica, Taiwan)

Kai-Hsiang Yang (National Taipei University of Education, Taiwan)
Jan-Ming Ho (Academia Sinica, Taiwan)

Using Segmentation for Confidentiality Aware Image Storage and Retrieval on Clouds
Arash Nourian, Muthucumaru Maheswaran (McGill University, Canada)

Encrypted Phrase Searching in the Cloud
Steven Zittrower, Cliff Zou (University of Central Florida, USA)

Disk Storage Isolation and Verification in Cloud
Zhan Wang, Kun Sun, Sushil Jajodia (George Mason University, USA)
Jiwu Jing (Graduate University of Chinese Academy of Sciences, China)

Verifying Cloud Service Level Agreement
Lin Ye, Hongli Zhang, Jiantao Shi (Harbin Institute of Technology, China)
Xiaojiang Du (Temple University, USA)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: North Exhibit Hall Room D

CogRN02: Energy Management of Cognitive Radio Networks
Chair: Bala Natarajan (Kansas State University, USA)

Optimal Energy-Delay Tradeoff Policies in Cognitive Radio Networks
Habachi Oussama, Yezekael Hayel, Rachid El-Azouzi
(LIA/CERI University of Avignon, France)

Performance Analysis of Joint Power Control, Rate Adaptation, and Channel Selection Strategies for Cognitive Radio Networks
Ala Abu Alkheir, Mohamed Ibnkahla (Queen's University, Canada)

Distributed Optimal Power Control for Multicarrier Cognitive Systems
Guanying Ru, Hongxiang Li, Tuan T. Tran (University of Louisville, USA)
Weiyao Lin (Shanghai Jiao Tong University, China)
Lingjia Liu (University of Kansas, USA)
Huasen Wu (Beihang University, Beijing, China)

Sensing Time and Power Optimization in MIMO Cognitive Radio Networks
Farzad Moghimi (University of British Columbia, Canada)
Ranjan K. Mallik (Indian Institute of Technology, Delhi, India)
Robert Schober (University of British Columbia, Canada)

A Family of Power Allocation Schemes Achieving High Secondary User Rates in Spectrum Sharing OFDM Cognitive Radio
Mainak Chowdhury, Anubhav Singla (Stanford University, USA)
Ajit K. Chaturvedi (Indian Institute of Technology Kanpur, India)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: North Exhibit Hall Room F

CQ02: Network Layer Modeling and Design
Chair: Fabrizio Granelli (University of Trento, Italy)

On Path Selection and Wavelength Assignment in Inter-Domain Lightpath Provisioning
Alisson S. L. Pontes, Nelson L. S. da Fonseca (State University of Campinas, Brazil)

André C Drummond (University of Brasilia, Brazil)

A Congestion Level Based End-to-end Acknowledgement Mechanism for Delay Tolerant Networks
Ying An, Jiawei Huang, Hong Song, Jianxin Wang (Central South University, China)

A Robust WiMAX Scheduler for EPON-WiMAX Networks
Mariana Dias, Nelson L. S. da Fonseca (State University of Campinas, Brazil)

Impact of Relay Station Positioning on LTE Uplink Performance at Flow Level
Harm Hennepe, Hans van den Berg, Georgios Karagiannis (University of Twente, Netherlands)

On Adaptive Routing in Urban Vehicular Networks
Yanmin Zhu, YongKang Qiu, Yuchen Wu (Shanghai Jiao Tong University, China)
Bo Li (Hong Kong University of Science and Technology, Hong Kong)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: North Exhibit Hall Room G

CSSM02: Multimedia Quality of Experience
Chair: Luigi Atzori (University of Cagliari, Italy)

Improving QoE for Skype Video Call in Mobile Broadband Network
Jing Zhu, Rath Vannithamby (Intel, USA)
Christoffer Rodbro, Mingyu Chen (Skype, Sweden)
Soren Andersen (Skype, Luxemburg)

Adaptive Video Pacing Method Based on the Prediction of Stochastic TCP Throughput
Kozo Satoda, Hiroshi Yoshida, Hironori Ito, Kazunori Ozawa (NEC Corporation, Japan)

QoE-Driven Cache Management for HTTP Adaptive Bit Rate (ABR) Streaming over Wireless Networks
Weiwen Zhang, Yonggang Wen (Nanyang Technological University, Singapore)
Zhenzhong Chen (MediaTek USA Inc., USA)
Ashish Khisti (University of Toronto, Canada)

Availability Analysis of Cloud Computing Centers
Hamzeh Khazaei (University of Manitoba, Canada)
Jelena Mišić, Vojislav B. Mišić, Nasim Beigi Mohammadi (Ryerson University, Canada)

Empirical QoE/QoS Correlation Model based on Multiple Parameters for VoD flows
Aroussi Sana, Thouraya Bouabana-Tebibel (National School of Computer Science, Algeria) Abdelhamid
Mellouk (University Paris-Est Creteil Val de Marne, France)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: North Exhibit Hall Room H

CT08: Cognitive Radio
Chair: Anthony Soong (Huawei Technologies, USA)

Asymptotically Optimal Channel Feedback Protocol Design for Cognitive Multiple Access Channels
Ehsan Nekouei (University of Melbourne, Australia)
Hazer Inaltekin (Antalya International University, Turkey)
Subhrakanti Dey (University of Melbourne, Australia)

Interference Alignment with Rate Splitting in a Three-user Interference Channel with a Cognitive
Transmitter

Myunggil Kang, Wan Choi (KAIST, Korea)

Flexible Duplex for Cognitive Femtocells in Two-Tier Networks
Yong Sheng Soh (California Institute of Technology, USA)
Tony Q. S. Quek (Singapore University of Technology and Design
/ Institute for Infocomm Research, Singapore)
Marios Kountouris (Supélec, France)
Giuseppe Caire (University of Southern California, USA)

Phase Asynchronous Cognitive Interference Channels: Lossless Source-Channel Separation Theorems
Hamidreza Ebrahimzadeh Saffar, Patrick Mitran (University of Waterloo, Canada)

SEP-Optimal Antenna Selection for Average Interference Constrained Underlay Cognitive Radios
Rimalapudi Sarvendranath, Neelesh B. Mehta (Indian Institute of Science, India)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: North Exhibit Hall Room I

NGNI02: Router Architecture & Switch Design
Chair: Norbert Egi (Huawei Technologies Inc., USA)

On-line Power Savings in a Distributed Multi-stage Router Architecture
Andrea Bianco, Fikru Getachew Debele, Luca Giraudo (Politecnico di Torino, Italy)

FTMS: An Efficient Multicast Scheduling Algorithm for Feedback-based Two-stage Switch
Chunzhi He (University of Hong Kong, Hong Kong)
Bing Hu (Zhejiang University, China)
Kwan Yeung (University of Hong Kong, Hong Kong)

A Port-Configuration Assisted NIC IRQ Affinitization Scheme for Multi-Core Packet Forwarding Applications
Tsai Wen-Yen, Nen-Fu Huang, Hsien-Wei Hung (National Tsing Hua University, Taiwan)

Efficient Memory Layout for Packet Classification System on Multi-Core Architecture
Shariful H Shaikot, Min Sik Kim (Washington State University, USA)

Statistical Adapting RED in Dynamic Networks
Wu Chen (ZTE Corporation, China)
Geyong Min (University of Bradford, UK)
Honggang Zhang (Suffolk University, USA)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: North Exhibit Hall Room J

ONS03: Optical Spectrum Management
Chairs: Jason P. Jue (University of Texas, Dallas, USA)
Biswanath Mukherjee (University of California, Davis, USA)

Spectrum and Waveband Assignment in Elastic Optical Waveband Networks
Saket Varma, Jason P. Jue (University of Texas, Dallas, USA)

Spectrum Management in Heterogeneous Bandwidth Networks
Rui Wang, Biswanath Mukherjee (University of California, Davis, USA)

Dynamic RMSA in Elastic Optical Networks with an Adaptive Genetic Algorithm
Xiang Zhou, Wei Lu, Long Gong, Zuqing Zhu
(University of Science and Technology of China, China)

Optimal Relocation of Excess Capacity in Optical WDM Backbone Networks
Ferhat Dikbiyik (University of California, Davis, USA)
Massimo Tornatore (Politecnico di Milano, Italy)
Biswanath Mukherjee (University of California, Davis, USA)

Distributed Management of Energy-Efficient Lightpaths for Computational Grids
Daniele Tafani (Dublin City University, Ireland)
Burak Kantarci, Hussein T. Mouftah (University of Ottawa, Canada)
Conor J. McArdle, Liam Barry (Dublin City University, Ireland)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: Castle A

SAC-ASN1: DSL, RoF & Misc.
Chair: Filippo Cugini (CNIT, Italy)

On the Achievable Bit Rates of DSL Vectoring Techniques in the Presence of Alien Crosstalkers
Amir R. Forouzan (University of Isfahan, Iran)
Marc Moonen (Katholieke Universiteit Leuven, Belgium)
Michael Timmers, Mamoun Guenach, Jochen Maes (Alcatel-Lucent Bell Labs, Belgium)

Interference Alignment for DSL
Sean Huberman, Tho Le-Ngoc (McGill University, Canada)

Study of Complex-Envelope Behavioral Models for Radio-over-Fiber Link Nonlinearities
Luis C. Vieira, Nathan J Gomes, Anthony Nkansah (University of Kent, UK)
Frédéric Van Dijk (Alcatel Thales III-V Lab, France)

Development and Implementation of a Feature-Based Automatic Classification Algorithm for
Communication Standards in the 868 MHz Band
Matthias Kuba, Karlheinz Ronge (Fraunhofer Institute for Integrated Circuits IIS, Germany)
Robert Weigel (University of Erlangen-Nuremberg, Germany)

Expert System based on Wavelets and DELT Measurements for VDSL System
Claudomiro Jr., Vinicius Lima, Joao Crisostomo Weyl Costa, Aldebaro Klautau, Roberto Menezes
Rodrigues (Federal University of Para, Brazil)
Klas Ericsson (Ericsson AB, Sweden)
Gustavo Ikeda (UFPA, Brazil)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: Castle B

SAC-GNCS2: Green Hardware and Chip Designs
Chair: Roberto Bruschi (CNIT, Italy)

Measuring and modeling Energy Consumption to design a Green NetFPGA Giga-Router
Alfio Lombardo, Carla Panarello, Diego Reforgiato, Giovanni Schembra
(University of Catania, Italy)

Designing Optimal Energy Profiles for Network Hardware
Raffaele Bolla (University of Genoa, Italy)

Roberto Bruschi (CNIT, Italy)
Franco R Davoli (University of Genoa, Italy)

Potential on Energy Saving in a Modular Base Station
Wieslawa Wajda (Bell Labs Germany, Alcatel-Lucent Deutschland AG, Germany)

Exploiting Space Diversity and Dynamic Voltage Frequency Scaling in Multiplane Network-on-Chips
Andrea Bianco, Paolo Giaccone, Mario Roberto Casu, Nanfang Li (Politecnico di Torino, Italy)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: Castle C

SPC03: Relay
Chair: Hsi-Pin Ma (National Tsing Hua University, Taiwan)

MMSE Based Greedy Eigenmode Selection for AF MIMO Relay Channels
Shenyu Song, Wen Chen (Shanghai Jiao Tong University, China)

Segment Training Based Individual Channel Estimation for One-Way Relay Network
Shun Zhang (Xidian University, China)
Feifei Gao (Tsinghua University, China)
Changxin Pei, Xiandeng He (Xidian University, China)

Precoding Design for Cognitive Two-Way Relay Networks
Rui Wang, Meixia Tao (Shanghai Jiao Tong University, China)

An Adaptive Receiver Design for OFDM-Based Cooperative Relay Systems Using Conjugate
Transmission
Chin-Liang Wang, Po-Chung Shen, Meng-Cian Bai, Hung-Chin Wang
(National Tsing Hua University, Taiwan)

Secure Resource Allocation for OFDMA Two-Way Relay Networks
Haijun Zhang (Beijing University of Posts and Telecommunications, China)
Hong Xing (King's College London, UK)
Xiaoli Chu (University of Sheffield, UK)
Arumugam Nallanathan (King's College London, UK)
Wei Zheng, Xiangming Wen (Beijing University of Posts and Telecommunications, China)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: Monorail A

WC04: Cooperative Communications I: Coding and Diversity
Chair: Toufiqul Islam (University of British Columbia, Canada)

Towards Reliable Cooperative Communications in Clustered Ad Hoc Networks
Ahasanun Nessa, Kadoch Michel (Ecole de Technologie Suprieure, Canada)
Rose Qingyang Hu (Utah State University, USA)
Bo Rong (Communications Research Centre, Canada)

User Cooperation via Rateless Coding
Mahyar Shirvanimoghaddam, Yonghui Li, Branka Vucetic (University of Sydney, Australia)

Opportunistic Relaying with Time-Division Broadcast in Bidirectional Cooperative Networks
Peng Liu, Saeed Gazor, Il-Min Kim (Queen's University, Canada)

Cooperative Communication Based on Random Beamforming Strategy in Wireless Sensor Networks
Li Li, Kamesh Namuduri, Shengli Fu (University of North Texas, USA)

Cooperative Beamforming in Multiuser MIMO Networks: Fast SINR Fairness Algorithms
Yichao Huang (University of California, San Diego, USA)
Chee Wei Tan (City University of Hong Kong, Hong Kong)
Bhaskar Rao (University of California, San Diego, USA)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: Monorail B

WC05: Heterogeneous Network
Chair: Beatriz Soret (Aalborg University, Denmark)

Optimal Intra-cell Cooperation in the Heterogeneous Relay Network
Yiran Xu, Rose Qingyang Hu (Utah State University, USA)

Macro Transmission Power Reduction for HetNet Co-Channel Deployments
Beatriz Soret (Aalborg University, Denmark)
Klaus Pedersen (Nokia Siemens Networks, Denmark)

Joint Uplink and Downlink Optimal Mobile Association in a Wireless Heterogeneous Network
Richard Chen, Rose Qingyang Hu (Utah State University, USA)

Efficient Communications in Mobile Hybrid Wireless Networks
Xueli Huang, Xiaojiang Du (Temple University, USA)
XiaoMing Li, Kaigui Bian (Peking University, China)

Towards an Optimal User Association in Heterogeneous Cellular Networks
Qiaoyang Ye (University of Texas, Austin, USA)
Beiyu Rong (Marvell Semiconductor, Inc, USA)
Yudong Chen, Constantine Caramanis, Jeffrey Andrews (University of Texas, Austin, USA)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: Monorail C

WC06: UWB II: Performance Analysis
Chair: Zhizhang Chen (Dalhousie University, Canada)

Performance Analysis of Dual-Hop systems with Fixed-Gain Relays over Generalized η-µ Fading Channels
Osamah Badarneh (Yarmouk University, Jordan)
Kadoch Michel (Ecole de Technologie Superieure, Canada)

Design and Performance Analysis of Distributed Network-Channel Codes for Wireless Sensor Networks
Jing Yue (Xidian University, China)
Kun Pang, Zihuai Lin, Yonghui Li (University of Sydney, Australia)
Bao-Ming Bai (Xidian University, China)
Branka Vucetic (University of Sydney, Australia)

SINR Order Statistics in OFDMA Systems
Radha Krishna Ganti (IIT, Madras, India)
Kiran Kuchi (IIT Hyderabad, India)

Heterogeneous Broadcast Channel: Spatial Diversity or Advanced Receiver Design

Rizwan Ghaffar, Pin-Han Ho (University of Waterloo, Canada)
Bin Wu (University of Electronic Science and Technology of China, China)

Downlink Coverage Analysis in a Heterogeneous Cellular Network
Prasanna Madhusudhanan, Juan Restrepo, Youjian (Eugene) Eugene Liu, Timothy Brown (University of Colorado, Boulder, USA)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: Magic Kingdon Ballroom 1

WN03: Cellular Networks I
Chair: Olabisi Emmanuel Falowo (University of Cape Town, South Africa)

Regularity-Based Wireless Subscriber Population Estimation
Sara Motahari, Kosol Jintaseranee, Phyllis Reuther, Hui Zang (Sprint, USA)

Statistical Analysis of COB-based Location Estimation in Cellular Mobile Radio Systems
Nejla Ghaboosi, Abbas Jamalipour (University of Sydney, Australia)

Optimizing Cell Size for Energy Saving in Cellular Networks with Hybrid Energy Supplies
Tao Han, Nirwan Ansari (NJIT, USA)

Decentralized Energy-Efficient Base Station Operation for Green Cellular Networks
Wei-Te Wong (National Taiwan University, Taiwan)
Ya-Ju Yu (Academia Sinica, Taiwan)
Ai-Chun Pang (National Taiwan University, Taiwan)

Dynamic Operation of Base Stations in Green Wireless Cellular Networks Powered by the Smart Grid
Shengrong Bu, F. Richard Yu, Yegui Cai, Peter Liu (Carleton University, Canada)

Tuesday, 4 December 2012 • 13:45 – 15:30
Room: Magic Kingdom Ballroom 4

WN04: 802.11 Wireless Networks
Chair: Sunghyun Choi (Seoul National University, Korea)

Receiver Design for Realizing On-Demand WiFi Wake-up using WLAN Signals
Hiroyuki Yomo (Kansai University, Japan)
Yoshihisa Kondo (ATR Adaptive Communications Research Lab, Japan)
Noboru Miyamoto (Kansai University, Japan)
Suhua Tang (ATR Adaptive Communications Research Lab, Japan)
Masahito Iwai, Tetsuya Ito (NEC Communication Systems, Ltd., Japan)

DeepSleep: IEEE 802.11 Enhancement for Energy-Harvesting Machine-to-Machine Communications
Hsiang-Ho Lin, Hung-Yu Wei (National Taiwan University, Taiwan)
Rath Vannithamby (Intel, USA)

Markov Chain Performance Model for IEEE 802.11 Devices with Energy Harvesting Source
Ger Yang, Guan-Yu Lin, Hung-Yu Wei (National Taiwan University, Taiwan)

Collision Detection in IEEE 802.11 Networks by Error Vector Magnitude Analysis
Muhammad Aman, Wai Chan, Biplab Sikdar (Rensselaer Polytechnic Institute, USA)

Averting Speed Inefficiency in Rate-Diverse WiFi Networks through Queueing and Aggregation
Martín Zubeldía, Andres Ferragut, Fernando Paganini (Universidad ORT, Uruguay)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room A

AHSN03: Wireless Sensor Network Routing I
Chair: Moez Esseghir
(University of Technology, Troyes / Charles Delaunay Institute, France)

Optimal Distributed Relay Selection for Duty-Cycling Wireless Sensor Networks
Mohammed-Amine Koulali, Abdellatif Kobbane, Mohammed El Koutbi
(University Mohamed V - Souissi / ENSIAS, Morocco)
Jalel Ben-Othman (University of Paris 13, France)

Consensus Based Distributed Joint Power and Routing Optimization in Wireless Sensor Networks
Markus Leinonen, Marian Codreanu, Markku Juntti (University of Oulu, Finland)

Hands on IRIS: Lessons learned from implementing a cross layer protocol stack for WSNs
Alessandro Camillò, Chiara Petrioli (University of Rome "La Sapienza", Italy)

Fast Convergence in Stochastic Routing for Wireless Sensor Networks: An Analytical Perspective
Udara Sadathana Wijetunge, Sylvie Perreau, André Pollok
(University of South Australia, Australia)

Improving Learning Automata-based Routing in Wireless Sensor Networks
Ehsan Ahvar (Payame Noor University, Iran)
Marcelo Yannuzzi, René Serral-Gracià, Eva Marin-Tordera
(Technical University of Catalonia, Spain)
Xavier Masip-Bruin (Universitat Politècnica de Catalunya /
Advanced Network Architectures Lab, Spain)
Shohreh Ahvar (Isfahan University of Technology, Iran)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room B

AHSN12: VANETs II
Chair: Soufiene Djahel (Lero, UCD School of Computer Science and Informatics, Ireland)

A Hidden Markov Model based Scheme for Efficient and Fast Dissemination of Safety Messages in VANETs
Imane Horiya Brahmi (PEL, UCD, Ireland)
Soufiene Djahel (Lero, UCD School of Computer Science and Informatics, Ireland)
Yacine Ghamri-Doudane (ENSIIE / Université Paris-Est, France)

Stochastic Data Delivery Delay Analysis in Intermittently Connected Vehicular Networks
Maurice J. Khabbaz (Concordia University / Lebanese American University, Canada)
Hamed M. K. Alazemi (Kuwait University, Kuwait)
Chadi Assi (Concordia University, Canada)

A Road-based QoS-aware Multipath Routing for Urban Vehicular Ad Hoc Networks
Yi-Ling Hsieh, Kuochen Wang (National Chiao Tung University, Taiwan)

Routing in VANETs: A Fuzzy Constraint Q-Learning Approach
Celimuge Wu, Satoshi Ohzahata, Toshihiko Kato
(University of Electro-Communications, Japan)

A Distributed Advanced Analytical Trust Model for VANETs
Tahani Gazdar (University of Avignon / University of Manouba, Tunisia)
Abderrezak Rachedi (University Paris-Est Marne-la-Vallée, France)
Abderrahim Benslimane (University of Avignon / LIA/CERI, France)
Abdelfettah Belghith (University of Manouba / National School of Computer Sciences, Tunisia)

Towards Guaranteed Delivery of Safety Messages in VANETs
Faisal Ahmad Khan (Georgia Institute of Technology, USA)
Yusun Chang (Southern Polytechnic State University, USA)
Sung Jin Park, John A. Copeland (Georgia Institute of Technology, USA)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room C

CISS03: Physical Security
Chair: Maged Elkashlan (Queen Mary, University of London, UK)

Precoding Strategy Based on SLR for Secure Communication in MUME Wiretap Systems
Kun Xie, Wen Chen (Shanghai Jiao Tong University, China)

Secure Transmission via Transmit Antenna Selection in MIMO Wiretap Channels
Nan Yang (University of New South Wales, Australia)
Phee Lep Yeoh (University of Melbourne, Australia)
Maged Elkashlan (Queen Mary, University of London, UK)
Robert Schober (University of British Columbia, Canada)
Iain B. Collings (CSIRO, Australia)

PHY Foundation for Multi-Factor ZigBee Node Authentication
Benjamin W. Ramsey, Michael A Temple, Barry E. Mullins
(Air Force Institute of Technology, USA)

Enhanced Security of Random Seed DSSS Algorithms against Seed Jamming Attacks
Young-Hyun Oh, David Thuente (North Carolina State University, USA)

Security Embedding on UWB-IR Physical Layer
Ahmed Benfarah (Insa Lyon / Orange Labs, France)
Benoit Miscopein (France Telecom, France)
Jean-Marie Gorce (INSA-Lyon, France)

Clock Skew Based Remote Device Fingerprinting Demystified
Fabian Lanze, Andriy Panchenko, Benjamin Braatz, Andreas Zinnen
(University of Luxembourg, Luxemburg)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room D

CogRN03: Resource Allocation
Chair: Chung Shue Chen (Alcatel-Lucent Bell Labs /
Laboratory of Information, Network and Communication Sciences, France)

Rank Minimization Designs for Underlay MIMO Cognitive Radio Networks with Completely Unknown Primary CSI
Minyan Pei (University of California, Irvine / National University of Defense Technology, USA)
Amitav Mukherjee (Nokia Research Center, USA)
Lee Swindlehurst (University of California, Irvine, USA)

Ji-Bo Wei (National University of Defense Technology, China)

Two-dimensional Contract Theory in Cognitive Radio Networks
Yanming Cao, Qi Shi, Xinbing Wang, Xiaohua Tian (Shanghai Jiaotong University, China)
Yu Cheng (Illinois Institute of Technology, USA)

Fair Channel Allocation and Access Design for Cognitive Ad Hoc Networks
Tan Thanh Le (University of Quebec, Canada)
Long Bao Le (INRS, University of Quebec, Canada)

Coordinated Optimization of Underlay Network Communication for Efficient Use of Spectrum
Amber Silva (BAE Systems / Worcester Polytechnic Institute, USA)
Joshua Niedzwiecki (BAE Systems, USA)
Alexander M. Wyglinski (Worcester Polytechnic Institute, USA)
Brandon Hombs (BAE Systems, USA)

Game Theory Based Resource Allocation for Cognitive Radio Networks
Omar El Ferkouss, Wessam Ajib (Université du Québec à Montréal, Canada)

Joint Spectrum Sensing and Resource Allocation for Multi-band Cognitive Radio Systems with Heterogeneous Services
Cong Shi, Ying Wang, Ping Zhang
(Beijing University of Posts and Telecommunications, China)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: Magic Kingdom Ballroom 4

CogRN09: Spectrum Sharing
Chair: Mohamed M. Abdallah (Texas A&M University / Cairo University, Qatar)

Profit-Robust Policies for Dynamic Sharing of Radio Spectrum
Ashraf Al Daoud (German Jordanian University / Boston University, Jordan)
Murat Alanyali, David Starobinski (Boston University, USA)

Exploiting Channel Correlation and PU Traffic Memory for Opportunistic Spectrum Scheduling
Shanshan Wang (Arizona State University, USA)
Sugumar Murugesan (ASSIA, Inc., USA)
Junshan Zhang (Arizona State University, USA)

Bargaining-based Spectrum Sharing for Cognitive Radio Networks with Incomplete Information
Xuesong Jonathan Tan, Liang Li
(University of Electronic Science and Technology of China, China)
Guo Wei (National Communication Technology Key LAB, China)

On-Demand Spectrum Sharing By Flexible Time-Slotted Cognitive Radio Networks
Shimin Gong (Nanyang Technological University, Singapore)
Xu Chen (Arizona State University, USA)
Jianwei Huang (Chinese University of Hong Kong, Hong Kong)
Ping Wang (Nanyang Technological University, Singapore)

Joint Multiuser Switched Diversity and Adaptive Modulation Schemes for Spectrum Sharing Systems
Marwa Qaraqe (Texas A&M University, USA)
Mohamed M. Abdallah (Texas A&M University / Cairo University, Qatar)
Erchin Serpedin (Texas A&M University, USA)
Mohamed-Slim Alouini (King Abdullah University of Science and Technology, Saudi Arabia)

Hussein Alnuweiri (Texas A&M University, Qatar)

Spectrum Sharing with Primary and Secondary Limited Feedback in Cognitive Radio Networks
Zhe Wang, Wei Zhang (University of New South Wales, Australia)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room F

CQ03: Cloud Computing and Communication Technology
Chair: Hongfang Yu (University of Electronic Science and Technology of China, China)

An Effective Auditing Scheme for Cloud Computing
Ryan Houlihan, Xiaojiang Du (Temple University, USA)

SEAD: Self-Evolving Anomaly Detection for Developing Highly Dependable Utility Clouds
Husanbir S. Pannu, Jianguo Liu, Song Fu (University of North Texas, USA)

D^2ENDIST: Dynamic and Disjoint ENDIST-based Layer-2 Routing Algorithm for Cloud Datacenters
Gen-Hen Liu, Hung-Pin Wen, Li-Chun Wang (National Chiao Tung University, Taiwan)

Adaptive Provisioning for Evolving Virtual Network Request in Cloud-based Datacenters
Gang Sun (University of Electronic Science and Technology of China, China)
Vishal Anand (State University of New York, USA)
Hong-Fang Yu, Dan Liao, Yanyang Cai, Le Min Li
(University of Electronic Science and Technology of China, China)

Impact of Communication Uncertainties on Workflow Scheduling in Hybrid Clouds
Luiz F. Bittencourt, Edmundo Madeira, Nelson L. S. da Fonseca
(State University of Campinas, Brazil)

On the Integrated Control of Virtual Machine Live Migration and Traffic Engineering for Cloud Computing
Hirofumi Ichihara, Yuki Koizumi, Hiroyuki Ohsaki, (Osaka University, Japan)
Kunio Hato, Junichi Murayama (NTT Corporation, Japan)
Makoto Imase (Osaka University, Japan)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room H

CSSM03: Peer-to-Peer Service
Chair: Roberto Rojas-Cessa (New Jersey Institute of Technology, USA)

Toward Continuous Push-based P2P Live Streaming
Dongni Ren, Wangkit Wong, Gary Chan
(Hong Kong University of Science and Technology, China)

A Study on Peer Startup Process and Initial Offset Placement in P2P Live Streaming Systems
Chunxi Li (Beijing Jiaotong University, China)
Yishuai Chen, Baoxian Zhang (Chinese Academy of Sciences, China)
Cheng Li (Memorial University of Newfoundland, Canada)
Changjia Chen (North JiaoTong University, China)

Peer Selection in P2P File Sharing Systems over Mobile Cellular Networks with Consideration of Downlink Bandwidth Limitation
Yan Zhang, Xu Zhou, Xuezhen Zhang (Chinese Academy of Sciences, China)
Shuhao Liu, Dan Liao (University of Electronic Science and Technology of China, China)

On Providing Bounded Delay Service to Subscribers in P2P Live Streaming Systems
Zhipeng Ouyang (OPNET, USA)
Miao Wang (A10networks Inc., USA)
Lisong Xu, Byrav Ramamurthy (University of Nebraska-Lincoln, USA)

Understanding the Topologies of BitTorrent Networks: A Measurement View
Majing Su, Hongli Zhang (Harbin Institute of Technology, China)
Xiaojiang Du (Temple University, USA)
Binxing Fang (Harbin Institute of Technology, China)
Mohsen Guizani (Qatar University, Qatar)

A Playback Length Changeable Chunk Scheduling Algorithm for SVC based P2P Streaming Systems
Junping Song, Xu Zhou, Yan Zhang, Hui Tang, Fan Bai (Chinese Academy of Sciences, China)
Song Ci (University of Nebraska-Lincoln, USA)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room I

CT02: Pilot Design and Channel Estimation
Chair: Michael Rice (Brigham Young University, USA)

Impact of Imperfect Channel State Information on the Performance of Wireless Sensor Networks
Giorgio Taricco (Politecnico di Torino, Italy)

Training Sequence Design for Data-Aided Synchronization of Burst-Mode CPM
Ehsan Hosseini, Erik S. Perrins (University of Kansas, USA)

Pilot Design and Channel Estimation for Uplink Block Spread CDMA
Gillian Huang (MStar Semiconductor Ltd, UK)
Yue Wang, Justin Coon, Mohammud Z. Bocus (Toshiba Research Europe Limited, UK)
Joe McGeehan (University of Bristol, UK)

Orthogonal Training Signal Relaying for Channel Estimation in Dual-Hop AF Relay Networks
Gillian Huang (MStar Semiconductor Ltd, UK)
Yue Wang, Justin Coon, Mohammud Z. Bocus (Toshiba Research Europe Limited, UK)

How useful is Adaptive Action?
Chiranjib Choudhuri, Urbashi Mitra (University of Southern California, USA)

A Rate-Maximizing Channel-Shortening Detector with Soft Feedback Side Information
Fredrik Rusek (Lund University, Sweden)
Naofal Al-Dhahir, Ahmad Abdulrahman Gomaa (University of Texas, Dallas, USA)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room J

NGNI03: Mobile and Wireless Networks
Chair: Ming Xia (Ericsson Research, USA)

Clique Partition Based Relay Placement in WiMAX Mesh Networks
Zhuofan Liao, Jianxin Wang, Shigeng Zhang (Central South University, China)
Jiannong Cao (Hong Kong Polytechnic University, Hong Kong)

Proposal of Seamless IP Mobility Schemes: Network Traversal with Mobility (NTMobile)

Katsuhiro Naito (Mie University, Japan)
Kazuma Kamienoo (Meijo University, Japan)
Takuya Nishio (Mie University, Japan)
Hidekazu Suzuki, Akira Watanabe (Meijo University, Japan)
Kazuo Mori, Hideo Kobayashi (Mie University, Japan)

A Novel User-centric Handoff Cost Framework Applied to the Virtual Mobility Domains and IPv6-based
Mobility Protocols
Hasan Tuncer, Nirmala Shenoy, Andres Kwasinski, John Hamilton, Sumita Mishra
(Rochester Institute of Technology, USA)

Benchmarking Message Authentication Code Functions for Mobile Computing
Abdulmonem Mohammad Rashwan (Queen's University, Canada)
Abd-Elhamid M. Taha (Alfaisal University, Saudi Arabia)
Hossam S. Hassanein (Queen's University, Canada)

Spatial Spectrum Sharing-based Carrier Aggregation for Heterogeneous Networks
Yong Xiao, Timothy K. Forde, Irene Macaluso (Trinity College Dublin, Ireland)
Luiz A. DaSilva (Virginia Polytechnic Institute and State University /
Trinity College Dublin, Ireland)
Linda Doyle (Trinity College Dublin, Ireland)

Inter-Operator Spectrum Sharing in Future Cellular Systems
Yu-Ting Lin (National Taiwan University, Taiwan)
Hamidou Tembine (Supelec, France)
Kwang-Cheng Chen (National Taiwan University, Taiwan)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: Castle B

SAC-GNCS3: Green Wireline Communications
Chair: Hussein Mouftah (University of Ottawa, Canada)

Analysis of ONT Buffer and Power Management Performances for XG-PON Cyclic Sleep Mode
Hakjeon Bang, Jongdeog Kim, Youngjun Shin, Chang-Soo Park
(Gwangju Institute of Science and Technology, Korea)

How to Slice the Day: Optimal Time Quantization for Energy Saving in the Internet Backbone Networks
Marcel Caria, Anna Engelmann, Admela Jukan
(Technische Universität Carolo-Wilhelmina zu Braunschweig, Germany)
Beate H. Konrad (Nokia Siemens Networks, Germany)

Energy Efficient DSL via Heterogeneous Sleeping States: Optimization Structures and Operation
Guidelines
Ioannis Kamitsos (Princeton University, USA)
Paschalis Tsiaflakis (Katholieke Universiteit Leuven, Belgium)
Kenneth Kerpez (ASSIA Inc, USA)
Sangtae Ha, Mung Chiang (Princeton University, USA)

Power Saving Protocol for 10G- EPON Systems: A Proposal and Performance Evaluations
Nga Dinh (Bell Labs Seoul, Korea)
Anwar Walid (Bell-labs, Alcatel Lucent, USA)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: Castle A

SAC-PL1: Power Line Communications and Smart Grid I
Chair: Vassilis Kekatos (University of Minnesota / University of Patras, USA)

Decentralized Power System State Estimation
Vassilis Kekatos (University of Minnesota / University of Patras, USA)
Georgios B. Giannakis (University of Minnesota, USA)

Attack against Electricity Market-Attacker and Defender Gaming
Mohammad Esmalifalak (University of Houston, USA)
Ge Shi (Peking University, China)
Zhu Han (University of Houston, USA)
Lingyang Song (Peking University, China)

False Data Injection Attacks with Incomplete Information against Smart Power Grids
Md Ashfaqur Rahman (Texas Tech University, USA)
Hamed Mohsenian-Rad (University of California, Riverside, USA)

Tackling Co-existence and Fairness Challenges in Autonomous Demand Side Management
Zahra Baharlouei, Hamed Narimani (Isfahan University of Technology, Iran)
Hamed Mohsenian-Rad (University of California, Riverside, USA)

Lightweight Powerline Communications for Smart Grid applications with standard RFID tags
Joerg Huettner, Fabian Kurz, Gerhard Metz, Andreas Ziroff (Siemens AG, Germany)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: Castle C

SPC04: OFDM and Multicarrier Systems
Chair: Xiaopeng Huang (Stevens Institute of Technology, USA)

Constrained Joint Bit and Power Allocation for Multicarrier Systems
Ebrahim Bedeer, Octavia A. Dobre, Mohamed Hossam Ahmed
(Memorial University of Newfoundland, Canada)
Kareem E. Baddour (Communications Research Centre, Canada)

Adaptive Threshold Optimization for a Blanking Nonlinearity in OFDM Receivers
Ulrich Epple, Michael Schnell (German Aerospace Center, Germany)

Symbol Merging Approach for Intercell Interference Mitigation in Wireless OFDM Systems
Enrique M Lizarraga (National University of Cordoba, Argentina)
Alexis Alfredo Dowhuszko (Aalto University / National University of Cordoba, Finland)
Victor Sauchelli (National University of Cordoba, Argentina)

On Max-SINR Receiver for Hexagonal Multicarrier Transmission over Doubly Dispersive Channel
Kui Xu, Xiaochen Xia (PLAUST, China)

A Parallel ICI Cancellation Technique for OFDM Systems
Hen-Geul Yeh (California State University, USA)
Kung Yao (UCLA, USA)

Optimal Bit and Power Loading for OFDM Systems with Average BER and Total Power Constraints
Ebrahim Bedeer, Octavia A. Dobre, Mohamed Hossam Ahmed
(Memorial University of Newfoundland, Canada)
Kareem E. Baddour (Communications Research Centre, Canada)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: Monorail A

WC07: Cooperative Communications II: Performance Analysis
Chair: Norman C. Beaulieu (University of Alberta, Canada)

Performance of OSTBC Transmission in Dual-Hop Amplify-and-Forward MIMO Relaying Systems over Spatially Correlated Nakagami-m Fading Channels
Kai Yang (Alcatel-Lucent Shanghai Bell Co., Ltd, China)
Jie Yang (Beijing Institute of Technology, China)
Liyu Cai (Alcatel-Lucent Shanghai Bell Co., Ltd, China)

Performance Analysis of AF Cooperative Systems with HPA Nonlinearity in Semi-Blind Relays
Jian Qi (King Abdullah University of Science and Technology, Saudi Arabia)
Sonia Aïssa (INRS, University of Quebec, Canada)
Mohamed-Slim Alouini (King Abdullah University of Science and Technology, Saudi Arabia)

Efficient Concurrent Transmission Scheduling for Cooperative Millimeter Wave Systems
Jian Qiao (University of Waterloo, Canada)
Bin Cao (Harbin Institute of Technology / University of Waterloo, China)
Xiaoxia Zhang, Sherman Shen, Jon Mark (University of Waterloo, Canada)

Multi-cell Distributed Interference Cancellation for Co-operative Pico-cell Clusters
Shirish Nagaraj (Nokia Siemens Networks, USA)
Raghavendra M R (Nokia Siemens Networks, India)
Philip J. Fleming (Nokia Siemens Networks, USA)
Michael Honig (Northwestern University, USA)

Adaptive Fusion in Air: A Cooperative Sensing Scheme Based on Distributed Beamforming
Cheng Luo, Wei Chen, Shunliang Mei (Tsinghua University, China)

Cooperative Binary Relaying and Combining for Multi-hop Wireless Communication
Yi Zhu, Chong Tang, Lixing Song, Qingmei Yao, Shaoen Wu
(University of Southern Mississippi, USA)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: Monorail B

WC08: Modulation and Coding II
Chair: Qingchun Chen (Southwest Jiaotong University, China)

Optimal Binary/Quaternary Adaptive Signature Design for Code-Division Multiplexing
Lili Wei, Wen Chen (Shanghai Jiao Tong University, China)

Reduced-Complexity Soft STBC Detection
Chao Xu, Dandan Liang (University of Southampton, UK)
Shinya Sugiura (Toyota Central R&D Labs., Inc., Japan)
Soon Xin (Michael) Ng, Lajos Hanzo (University of Southampton, UK)

Differential Codebook for General Rotated Dual-Polarized MISO Channels
Junil John Choi (Purdue University, USA)
Bruno Clerckx (Imperial College London, UK)
David Love (Purdue University, USA)

Channel Codes for Mitigating Intersymbol Interference in Diffusion-based Molecular Communications

Po-Jen Shih (National Taiwan University, Taiwan)
Chia-Han Lee (Academia Sinica, Taiwan)
Ping-Cheng Yeh (National Taiwan University, Taiwan)

Blind Encoder Parameter Estimation for Turbo Codes
Yonas Debessu, Hsiao-Chun Wu (Louisiana State University, USA)
Hong Jiang (Bell Labs & Alcatel-Lucent, USA)
Shih Yu Chang (National Tsing Hua University of Taiwan, Taiwan)

On the PS-RCPT Codes Design for LTE System
Xiaofeng Long, Qingchun Chen (Southwest Jiaotong University, China)
Pei Xiao (University of Surrey, UK)
Jinsong Wu (Bell Laboratories & Alcatel-Lucent, China)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: Monorail C

WC09: Interference Management I
Chair: Hani Mehrpouyan (California State University, USA)

Interference Alignment Based on Channel Prediction with Delayed Channel State Information
Nan Zhao (Dalian University of Technology, China)
F. Richard Yu (Carleton University, Canada)
Hongjian Sun (King's College London, UK)
Hongxi Yin (Dalian University of Technology, China)
Arumugam Nallanathan (King's College London, UK)

An Effective Initialization of Interference Cancellation Algorithms for Distributed MIMO Systems in Wireless Datacenters
Toshiyuki Yamane, Yasunao Katayama (IBM Research, Japan)

Is Multicell Interference Coordination Worthwhile in Indoor Wireless Broadband Systems?
Du Ho Kang, Ki Won Sung, Jens Zander (Royal Institute of Technology, Sweden)

Adaptive Partitioned Interference Management in Cellular Networks
Bijan Golkar, Elvino Silveira Sousa (University of Toronto, Canada)

Distributed Clustering and Interference Management in Two-Tier Networks
Kianoush Hosseini, Hayssam Dahrouj, Raviraj Adve (University of Toronto, Canada)

Data Sharing Coordination and Blind Interference Alignment for Cellular Networks
Salam Akoum (University of Texas, Austin, USA)
Chung Shue Chen (Alcatel-Lucent Bell Labs /
Laboratory of Information, Network and Communication Sciences, France)
Mérouane Debbah (Supelec, France)
Robert Heath (University of Texas, Austin, USA)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: Magic Kingdom Ballroom 1

WN05: Handover and Mobility Management
Chair: Sangheon Pack (Korea University, Korea)

Playout-Buffer Aware Hand-Off Control for Wireless Video Streaming
Lawrence Chow, Bradley Collins, Nicholas Bambos (Stanford University, USA)

Christoph Peylo, Hans Joachim Einsiedler, Nico Bayer
(Deutsche Telekom Laboratories, Germany)
Peter Dely, Andreas J. Kassler (Karlstad University, Sweden)

Joint Utility Optimization Based Vertical Handoff Algorithm in Heterogeneous Network
Ruizhe Yin, Rong Chai, Qian-bin Chen
(Chongqing University of Posts and Telecommunications, China)

Effect of Call Dynamics of a Multiservice Multimode Terminal on RAT Selection in Heterogeneous
Wireless Networks
Olabisi Emmanuel Falowo (University of Cape Town, South Africa)
H. Anthony Chan (Huawei Technologies, USA)

Distributed Mobility Management Scheme with Mobility Routing Function at the Gateways
Petro Pesha Ernest (University of Cape Town, South Africa)
H. Anthony Chan (Huawei Technologies, USA)
Olabisi Emmanuel Falowo (University of Cape Town, South Africa)

Performance Comparison between Multihomed Network Mobility Protocols
Md Shohrab Hossain, Mohammed Atiquzzaman (University of Oklahoma, USA)
William D. Ivancic (NASA Glenn Research Center, USA)

Cost and Efficiency Analysis of Hierarchical SIGMA
Md Shohrab Hossain, Mohammed Atiquzzaman (University of Oklahoma, USA)
William D. Ivancic (NASA Glenn Research Center, USA)

Tuesday, 4 December 2012 • 16:00 – 18:00
Room: North Exhibit Hall Room G

WN06: Delay Tolerant Networks
Chair: Atikan Teber (Case Western Reserve University / Prince Sultan University, USA)

Modeling Opportunistic Data Delivery in Dynamic Wireless Networks
Mary R. Schurgot, Cristina Comaniciu (Stevens Institute of Technology, USA)
Katia Jaffrès-Runser (University of Toulouse, France)

Incentive Driven Information Sharing in Delay Tolerant Mobile Networks
Yan Wang (Stevens Institute of Technology, USA)
Mooi Choo Chuah (Lehigh University, USA)
Yingying Chen (Stevens Institute of Technology, USA)

A Novel Bargaining based Incentive Protocol for Opportunistic Networks
Yun Li, Jihong Yu (ChongQing University of Posts and Telecommunications of China, China)
Chonggang Wang (InterDigital Communications, USA)
Qilie Liu (ChongQing University of Posts and Telecommunications, China)
Bin Cao (University of Electronic Science and Technology of China, China)
Mahmoud Daneshmand (AT&T, USA)

Routing with Multi-Level Social Groups in Mobile Opportunistic Networks
Lunan Zhao, Fan Li, Chao Zhang (Beijing Institute of Technology, China)
Yu Wang (University of North Carolina, Charlotte, USA)

Topology Design in Time-Evolving Delay-Tolerant Networks with Unreliable Links
Minsu Huang, Siyuan Chen (University of North Carolina, Charlotte, USA)
Fan Li (Beijing Institute of Technology, China)

Yu Wang (University of North Carolina, Charlotte, USA)

Constructing Time-Varying Contact Graphs for Heterogeneous Delay Tolerant Networks
Xiaoyan Hong, Bo Gu, Yuguang Zeng, Jingyuan Zhang (University of Alabama, USA)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room A

AHSN04: Wireless Sensor Network Routing II
Chair: Jun Zheng (Southeast University, China)

Pruned Adaptive Routing in the Heterogeneous Internet of Things
Sharief M.A. Oteafy, Fadi M. Al-Turjman, Hossam S. Hassanein (Queen's University, Canada)

An Entropy Coding based Hybrid Routing Algorithm for Data Aggregation in Wireless Sensor Networks
ZhenZhong Huang, Jun Zheng (Southeast University, China)

A Simple Energy-Efficient Routing Algorithm for Wireless Sensor Networks based on Artificial Potential Field
Shichao Wang, Ruonan Zhang (Northwestern Polytechnical University, China)
Jianfeng Ma (Xidian University, China)
Lin Cai (University of Victoria, Canada)

Delay Minimum Data Collection in the Low-duty-cycle Wireless Sensor Networks
Shuyun Luo (Beijing University of Posts and Telecommunications, China)
Xufei Mao (Tsinghua University, China)
Yongmei Sun, Ji Yuefeng (Beijing University of Posts and Telecommunications, China)
Shaojie Tang (Illinois Institute of Technology, USA)

A Cross-Layer Approach for Context-Aware Data Gathering in Wireless Sensor Networks
Mohamed S Hefeida, Ashfaq Khokhar (University of Illinois, Chicago, USA)

Receiver-Based Heading: Towards On-Line Energy Efficient Duty Cycle Assignments
Yuqun Zhang, Chien-Liang Fok (University of Texas, Austin, USA)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room B

AHSN13: DTN and Opportunistic Networking
Chair: Shigeru Shimamoto (Waseda University, Japan)

An SNMP-based Solution for Vehicular Delay-Tolerant Network Management
Bruno Ferreira João Isento, João Dias, Joel J. P. C. Rodrigues
(Instituto de Telecomunicações, University of Beira Interior, Portugal)
Liang Zhou (Nanjing University of Posts and Telecommunications, China)

Come-Stop-Leave (CSL): A Geographic Routing for Intermittently Connected Networks Using Delegation Replication Approach
Yue Cao (University of Surrey, UK)
Yingmin Wang (CATT, China)
Shaoli Kang (CATT, China)
Zhili Sun (University of Surrey, UK)

Energy Efficient Scheduling for Delay Constrained Communication in Wireless Body Area Networks

Qinghua Shen, Weihua Zhuang (University of Waterloo, Canada)

TicTac: From Transfer-Incapable Carpooling to Transfer-Allowed Carpooling
Yunfei Hou, Xu Li, Chunming Qiao (State University of New York, Buffalo, USA)

A Distributed Opportunistic Scheduling Protocol for Multi-Channel Wireless Ad Hoc Networks
Hua Chen, John S. Baras (University of Maryland College Park, USA)

Ubiquitous Robust Data Delivery for Integrated RSNs in IoT
Ashraf E. Al-Fagih, Fadi M. Al-Turjman, Hossam S. Hassanein (Queen's University, Canada)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room C

CISS04: Internet Security I
Chair: Raheem Beyah (Georgia Institute of Technology, USA)

Pecan: A Circuit-less P2P Design for Anonymity
Gang Xu, Leonardo Aguilera, Yong Guan (Iowa State University, USA)

Real-World Sybil Attacks in BitTorrent Mainline DHT
Liang Wang, Jussi Kangasharju (University of Helsinki, Finland)

Relay Recommendation System (RRS) and Selective Anonymity for Tor
Chenglong Li (CNCERT/CC, China)
Yibo Xue (Tsinghua University, China)
Yingfei Dong (University of Hawaii, USA)
Dongsheng Wang (Tsinghua University, China)

IRONSIDES: DNS with No Single-Packet Denial of Service or Remote Code Execution Vulnerabilities
Martin Carlisle, Barry Fagin (US Air Force Academy, USA)

Towards Active Measurement for DNS Query Behavior of Botnets
Xiaobo Ma, Jianfeng Li, Jing Tao (Xi'an Jiaotong University, China)
Xiaohong Guan (Xi'an Jiaotong University / Tsinghua University, China)

Rabit: A Reputation Architecture for BitTorrent
Hani Ragab-Hassen, Olga Jones, Nikos Galanis (University of Kent, UK)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room D

CISS10: Information Security and Cryptography
Chair: Xiaodong Lin (University of Ontario Institute of Technology, Canada)

Linear Cryptanalysis against Block Ciphered System under Noisy Ciphertexts
Yahya Khiabani, Shuangqing Wei (Louisiana State University, USA)
Jian Yuan, Jian Wang (Tsinghua University, China)

Hash Function Mapping Design Utilizing Probability Distribution for Pre-image Resistance
Jianhua Mo (Shanghai Jiao Tong University, China)
Xiawen Xiao (Nanchang University, China)
Meixia Tao (Shanghai Jiao Tong University, China)
Nanrun Zhou (Nanchang University, China)

A Hierarchical Two-Tier One-way Hash Chain Protocol for Secure Internet Transactions
Amerah Alabrah, Mostafa Bassiouni (University of Central Florida, USA)

An Approach for Light-Weight Encryption Employing Dedicated Coding
Miodrag Mihaljević (Serbian Academy of Sciences and Arts, Serbia)

Adaptive Angle Quantization Index Modulation for Robust Image Watermarking
Mohsen Zareian (Amirkabir University of Technology, Iran)
Ali Daneshkhah (IUPUI, USA)

An Attribute Based Encryption Scheme with Fine-Grained Attribute Revocation
Qiang Li, Dengguo Feng, Liwu Zhang (Chinese Academy of Sciences, China)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Magic Kingdom Ballroom 4

CogRN04: MIMO and Cooperative Relaying Cognitive Radio Networks
Chair: Raghuraman Mudumbai (University of Iowa, USA)

Blind Null-space Tracking for MIMO Underlay Cognitive Radio Networks
Alexandros Manolakos, Yair Noam (Stanford University, USA)
Konstantinos D. Dimou
Andrea Goldsmith (Stanford University, USA)

Incremental Relaying Transmissions with Relay Selection in Cognitive Radio Networks
Wael Jaafar (École Polytechnique de Montréal, Canada)
Wessam Ajib (Université du Québec à Montréal, Canada)
David Haccoun (Ecole Polytechnique de Montréal, Canada)

Secure MISO Cognitive Radio System with Perfect and Imperfect CSI
Taesoo Kwon, Vincent W.S. Wong, Robert Schober (University of British Columbia, Canada)

On The User Scheduling In Cognitive Radio MIMO Networks
Elmahdi Driouch, Wessam Ajib (Université du Québec à Montréal, Canada)

Outage Analysis for Underlay Relay-assisted Cognitive Networks
Kamel Tourki, Khalid A. Qaraqe (Texas A&M University, Qatar, USA)
Mohamed-Slim Alouini (King Abdullah University of Science and Technology, Saudi Arabia)

A Novel Secondary User Assisted Relay Mechanism in Cognitive Radio Networks with Multiple Primary Users
Song He, Lingge Jiang, Chen He (Shanghai Jiaotong University, China)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room F

CQ04: Service and Application on Communication Networks
Chair: Periklis Chatzimisios
(Alexander Technological Educational Institute of Thessaloniki, Greece)

Double Auction-based Optimal Relay Assignment for Many-to-Many Cooperative Wireless Networks
Yong Wang (University of Electronic Science and Technology
/ Chongqing University of Education, China)
Yun Li (ChongQing University of Posts and Telecommunications of China, China)

Xiaolong Yang (University of Science and Technology Beijing, China)
Chao Liao, Quan Chen (Chongqing University of Posts and Telecommunications, China)

Resource Contention-Aware Virtual Machine Management for Enterprise Applications
Andrew Fox, Andrew Turner, Hyong Kim (Carnegie Mellon University, USA)

Community Detection in an Integrated Internet of Things and Social Network Architecture
Sudip Misra, Romil Barthwal (Indian Institute of Technology, Kharagpur, India)
Mohammad S. Obaidat (Monmouth University, USA)

Multidimensional Resource Allocation Strategy for High-Speed Railway MIMO-OFDM System
Yisheng Zhao, Xi Li, Xiaoliang Zhang, Yi Li, Hong Ji
(Beijing University of Posts and Telecommunications, China)

A Case Study of Listening Quality of Temporally Interrupted VoIP Service
Sofiene Jelassi, Gerardo Rubino (INRIA, France)

Performance Evaluation of Cooperation Mechanisms for mHealth Applications
Tiago Machado, Ivo Lopes, Bruno Silva, Joel J. P. C. Rodrigues
(Instituto de Telecomunicações, University of Beira Interior, Portugal)
Jaime Lloret (Universidad Politécnica de Valencia, Spain)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room G

CSSM04: Mobile Service and Service Platform
Chair: Gary Chan (Hong Kong University of Science and Technology, China)

Mobile Applications Tracking Wireless User Location
Sara Motahari, Hui Zang (Sprint, USA)
Soshant Bali (IIIT Delhi, USA)
Phyllis Reuther (Sprint, USA)

A Trust Calculating Algorithm Based on Mobile Phone Data
Yancui Shi, Xiangwu Meng, Yujie Zhang, Mi Xiao
(Beijing University of Posts and Telecommunications, China)

Multi-entity Device-Free WLAN Localization
Ibrahim Sabek (Alexandria University, Egypt)
Moustafa Youssef (Egypt-Japan University of Science and Technology, Egypt)

CONT: A Contention-based Time Division Scheme for Handoff Support in Single-radio Wireless Mesh
Networks
Haopeng Li, Linda Jiang Xie (University of North Carolina. Charlotte, USA)

A SIP-SHIM6 Based Solution for Seamless Intra-Domain Mobility in IMS Networks
Amel Achour, Kamel Haddadou, Brigitte Kervella (LIP6 University of Paris 6, France)
Guy Pujolle (Laboratoire d'Informatique de Paris 6, France)

deStress: Mobile and Remote Stress Monitoring, Alleviation, and Management Platform
Jin Zhang (Hong Kong University of Science and Technology, China)
Hao Tang (Shenzhen New Element Medical Equipment Technology Development Co., China)
Dawei Chen, Qian Zhang (Hong Kong University of Science and Technology, Hong Kong)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room H

CT03: Network Coding
Chair: Tor M. Aulin (Chalmers University of Technology, Sweden)

On Analysis of Wireless Uplink using Analog Network Coding with Non-Coherent Modulations
Wei Guan, K. J. Ray Liu (University of Maryland, USA)

A Simple Non-Coherent Physical-Layer Network Coding for Transmissions over Two-Way Relay Channels
Kai Zhu, Alister G. Burr (University of York, UK)

On the Feasibility of Network Alignment for Three-Source Three-Destination Multiple Unicast Networks with Delays
Abhinav Ganesan (Indian Institute of Science, Bangalore, India)
Teja Damodaram Bavirisetti (Broadcom Communications Technologies Pvt Ltd, India)
B. Sundar Rajan (Indian Institute of Science, India)

Precoder Design for Weighted Sum Delay Minimization in MIMO Physical Layer Multicasting
Hao Zhu (University of Minnesota, USA)
Narayan Prasad, Sampath Rangarajan (NEC Labs America, USA)

Physical Layer Network Coding for Two-Way Relaying with QAM and Latin Squares
Vishnu Namboodiri, B. Sundar Rajan (Indian Institute of Science, India)

Finding Three Transmissions is Hard
Arash Saber Tehrani, Alex Dimakis (University of Southern California, USA)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room I

NGNI04: Network Virtualization
Chair: Zuqing Zhu (University of Science and Technology of China, China)

Virtual Network Embedding by Exploiting Topological Information
Zihou Wang, Yanni Han, Tao Lin, Hui Tang (Chinese Academy of Sciences, China)
Song Ci (University of Nebraska-Lincoln, USA)

Minimizing Electricity Cost in Geographical Virtual Network Embedding
Zhongbao Zhang, Sen Su, Xinli Niu, Jiao Ma, Xiang Cheng, Kai Shuang
 (Beijing University of Posts and Telecommunications, China)

Virtual Network Embedding with Substrate Support for Parallelization
Sheng Zhang (Nanjing University, China)
Jie Wu (Temple University, USA)
Sanglu Lu (Nanjing University, China)

Topology-aware Virtual Network Embedding through Bayesian Network Analysis
Sude Qing (Beijing University of Posts and Telecommunications
/ EBUPT Information Technology Co., Ltd., China)
Qi Qi, Jingyu Wang, Tong Xu, Jianxin Liao
(Beijing University of Posts and Telecommunications, China)

On the Problem of Mapping Virtual Machines to Physical Machines for Delay Sensitive Services

Bedhiaf limam Imen (UQAM, Canada)
Racha Ben Ali (École Polytechnique de Montréal, Canada)
Cherkaoui Omar (University of Quebec in Montreal, Canada)

Scalability Aspects of Centralized Control of MPLS Access/Aggregation Network
Dávid Jocha, András Kern (Ericsson, Hungary)
Kiran Yedavalli (Cisco Systems, USA)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room J

ONS02: Wireless Optical Communications and Networks
Chairs: Suresh Subramaniam (George Washington University, USA)
Maite Brandt-Pearce (University of Virginia, USA)

Multilevel Pulse-Position Modulation Based on Balanced Incomplete Block Designs
Mohammad Noshad, Maite Brandt-Pearce (University of Virginia, USA)

Alamouti-Type STBC for Subcarrier Intensity Modulated Wireless Optical Communications
Xuegui Song, Julian Cheng (University of British Columbia, Canada)

Hybrid FSO/RF Symbol Mappings: Merging High Speed FSO with Low Speed RF through BICM-ID
Kuldeep Kumar, Deva K. Borah (New Mexico State University, USA)

Improving Hybrid FSO/RF Network Reliability through Transceiver Reconfiguration
Farshad Ahdi, Suresh Subramaniam (George Washington University, USA)

Throughput Maximization Approach for O-MIMO Systems using MGDM Technique
Mazen Awad, Walaa Hamouda (Concordia University, Canada)
Iyad Dayoub (University Lille Nord de France / Concordia University Montreal, France)

Theoretical and Experimental Design of an Alternative System to 2x2 MIMO for LTE over 60 km Directly Modulated RoF Link
Thavamaran Kanesan, Wai Pang Ng, Zabih Ghassemlooy (Northumbria University, UK)
Chao Lu (Hong Kong Polytechnic University, Hong Kong)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Castle A

SAC-GNCS4: Analysis for Green Wireless Communications
Chair: George Koutitas (University of Thessaly, Greece)

Traffic-Aware Power Adaptation and Base Station Sleep Control for Energy-Delay Tradeoffs in Green Cellular Networks
Jian Wu (University of Tsinghua, China)
Yiqun Wu (Huawei, China)
Sheng Zhou (Tsinghua University, China)
Zhisheng Niu (Tsinghua University, China)

Energy Consumption Analysis of Wireless Networks using Stochastic Deployment Models
Vinay Suryaprakash (Technische Universität Dresden
/ Vodafone Chair Mobile Communication Systems, Germany)
André Fonseca dos Santos (Bell Labs, Alcatel-Lucent, Germany)
Albrecht J Fehske, Gerhard Fettweis (Technische Universität Dresden, Germany)

Energy Efficiency Analysis of a Cooperative Scheme for Wireless Local Area Networks
Tatjana Predojev, Jesus Alonso-Zarate
(Centre Tecnologic de Telecomunicacions de Catalunya, Spain)
Luis Alonso (Universidad Politecnica de Catalunya, Spain)
Christos Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)

Energy Efficiency and Deployment Efficiency Tradeoff for Heterogeneous Wireless Networks
Gaoning He, Shunqing Zhang, Yan Chen, Shugong Xu (Huawei, China)

Analysis of Spectral Efficiency and Energy Efficiency Interrelationship in Cellular Networks with Outage Constraint
Jaya B. Rao, Abraham O. Fapojuwo (University of Calgary, Canada)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Castle B

SPC05: Coding and Decoding
Chair: Byonghyo Shim (Korea University, Korea)

Complexity Reduction of Blind Decoding Schemes Using CRC Splitting
Jonas Eriksson (Ericsson AB, Sweden)
Reza Moosavi, Erik G. Larsson (Linkoping University, Sweden

Near-Optimal Turbo Decoding in Presence of SNR Estimation Error
Mostafa El-Khamy, Jinhong Wu (Samsung, USA)
Hee-Jin Roh (Samsung, Korea)
Jungwon Lee, (Samsung, USA)

Online SNR Statistic Estimation for LDPC Decoding over AWGN Channel Using Laplace Propagation
Lijuan Cui (University of Oklahoma, USA)
Shuang Wang (University of California, San Diego, USA)
Samuel Cheng (University of Oklahoma, USA)

A New Paradigm for Channel Coding in Diffusion-Based Molecular Communications: Molecular Coding Distance Function
Pin-Yu Ko, Yen-Chi Lee, Ping-Cheng Yeh (National Taiwan University, Taiwan)
Chia-Han Lee (Academia Sinica, Taiwan)
Kwang-Cheng Chen (National Taiwan University, Taiwan)

Anti Error Propagation Methods for Wireless Uplink Using Network Coding
Wei Guan, K. J. Ray Liu (University of Maryland, USA)

Practical Coding Schemes for Cognitive Overlay Radios
Ernest Kurniawan (Stanford University / Institute for Infocomm Research, USA)
Andrea Goldsmith (Stanford University, USA)
Stefano Rini (Technical University Munich, Germany)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Magic Kingdom Ballroom 3

SPC06: COMP
Chair: Hani Mehrpouyan (California State University, USA)

Adaptive Joint Nonlinear Transmit-Receive Processing for Multi-Cell MIMO Networks
Liang Sun, Ming Lei (NEC Laboratories China, China)

Design Method of Relative Magnitude Coefficients Considering Rotation of Basis Vectors in Interference Space on the K-User MIMO Interference Channel for Downlink System
Kunitaka Matsumura, Tomoaki Ohtsuki (Keio University, Japan)

An Interference Alignment Based Precoder Design Using Channel Statistics for OFDM Systems with Insufficient Cyclic Prefix
Yuansheng Jin, Xiang-Gen Xia (University of Delaware, USA)

Semi-Blind CoMP System with Multiple-CFO Estimation and ICA Based Equalization
Yufei Jiang, Xu Zhu (University of Liverpool, UK)
Eng Lim (XJTLU, China); Hai Lin (Osaka Prefecture University, Japan); Yi Huang (University of Liverpool, United Kingdom)

Dynamic Power Allocation via Wavefront Multiplexing Through Multiple Base Stations
Donald Chang (Spatial Digital Systems, USA)
Hen-Geul Yeh, Pei Wang (California State University, Long Beach, USA)

Linear Precoding and Power Allocation Optimization with Partial CSI under per BS Power Constraints for Cooperative MIMO TDD Systems
Shu-Yan Yu, Hsi-Pin Ma (National Tsing Hua University, Taiwan)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Castle C

WC10: Relay Technologies: Performance Analysis and Relay Selection
Chair: Wei Xu (Southeast University, China)

Spectral-Energy Efficiency Tradeoff in Multicell Cellular Networks with Adaptive Relay Cooperation
Ivan Ku, Chengxiang Wang (Heriot-Watt University, UK)
John Thompson (University of Edinburgh, UK)

Distributed Multiple Relay Selection by an Auction Mechanism
Chia-Hao Yu (MediaTek, Finland)
Brendan Mumey (Montana State University, USA)
Olav Tirkkonen (Aalto University, Finland)

Outage Probability of Opportunistic Decode-and-Forward Relaying with Beamforming in Two-Wave with Diffuse Power Fading Channels
Yao Lu (China Unicom, China)
Nan Yang (University of New South Wales, Australia)
Xiaoxiang Wang, Jiameng Luo (Beijing University of Posts and Telecommunications, China)

Space Full-Duplex Max-Max Relay Selection for Relays with Buffers
Aissa Ikhlef (University of British Columbia, Canada)
Junsu Kim (Korea Polytechnic University, Korea)
Robert Schober (University of British Columbia, Canada)

Outage Probability of Wireless Ad Hoc Networks with Cooperative Relaying
MohammadAli Mohammadi (Australian National University, Australia)
Himal A Suraweera (Singapore University of Technology and Design, Singapore)
Xiangyun Zhou (Australian National University, Australia)

An Efficient Cooperative Retransmission for Wireless Regenerative Relay Networks
Quoc-Tuan Vien, Brian G. Stewart, Huaglory Tianfield (Glasgow Caledonian University, UK)

Huan X Nguyen (Middlesex University, UK)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Monorail A

WC11: Network Coding I
Chair: Hadi Meshgi (McMaster University, Canada)

Phase-Level Synchronization for Physical-Layer Network Coding
Yang Huang, Qingyang Song (Northeastern University, China)
Shiqiang Wang (Imperial College London / Northeastern University, UK)
Abbas Jamalipour (University of Sydney, Australia)

Constellation Mapping for Physical-Layer Network Coding with M-QAM Modulation
Shiqiang Wang (Imperial College London / Northeastern University, UK)
Qingyang Song, Lei Guo (Northeastern University, China)
Abbas Jamalipour (University of Sydney, Australia)

Deadline-aware Broadcasting in Wireless Networks with Network Coding
Pouya Ostovari (Temple University, USA)
Abdallah A. Khreishah (New Jersey Institute of Technology, USA)
Jie Wu (Temple University, USA)

Soft Network Coding Design in Two-Way Relay Channel
Weixiao Meng, Rui Fang (Harbin Institute of Technology, China)
Cheng Li (Memorial University of Newfoundland, Canada)
Qiyue Yu (Harbin Institute of Technology, China)

Block Relay for Physical-Layer Network Coding
Ning Xu (Ericsson Inc, USA)
Shengli Fu (University of North Texas, USA)
Dong Wang (Philips Research North America, USA)
Yabo Li (Zhejiang University, China)

Joint Channel-Network Coding with Rateless Code in Two-way Relay System
Yu Zhang, Zhaoyang Zhang, Rui Yin, Guanding Yu, Wei Wang (Zhejiang University, China)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Monorail B

WC12: MIMO Systems: Transmission and Detection
Chair: Rizwan Ghaffar (University of Waterloo, Canada)

Information Dissemination in MIMO Networks
Youngmin Jeong, Hyundong Shin (Kyung Hee University, Korea)
Moe Win (Massachusetts Institute of Technology, USA)

A Transmission Mode Selection Scheme for MIMO Interference Channels with Antenna Correlations
Jin-Sung Kim (Bell Labs Seoul Ltd., Korea)
Kyoung-Jae Lee (University of Texas, Austin, USA)
Haewook Park (Korea University, Korea)
Inkyu Lee (Korea University, Korea)

Novel Tree-Search Algorithm versus Sphere-Decoding-based Algorithms for MIMO system with Inter-Symbol Interference

Xu Chong (University of St. Thomas, USA)
Hamid Gharavi (NIST / ITL, USA)

Achieving Full Diversity and Full Rate with Energy Spreading Transform for MIMO Systems
Taewon Hwang, Yunesung Kim, Hyunsung Park, Younggap Kwon (Yonsei University, Korea)

A Modified Fixed Sphere Decoding Algorithm for Under-Determined MIMO Systems
Chen Qian (Tsinghua University, China)
Jingxian Wu (University of Arkansas, USA)
Yahong Rosa Zheng (Missouri University of Science and Technology, USA)
Zhaocheng Wang (Tsinghua University, China)

Turbo Receiver Design for MIMO Relay ARQ Transmissions
Zakaria El-Moutaouakkil (Telecom Bretagne / LabSticc, Morocco)
Tarik Ait-Idir (INPT, Morocco)
Samir Saoudi (Telecom-Bretagne, France)
Halim Yanikomeroglu (Carleton University, Canada)
Mounir Ghogho (University of Leeds, UK)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Monorail C

WC13: Cellular Networks
Chair: Chung Shue Chen (Alcatel-Lucent Bell Labs /
Laboratory of Information, Network and Communication Sciences, France)

A Mutual-Information Based Power Allocation Algorithm for Multi-Layer Rate Splitting Scheme in Tri-sectored Wireless Networks
Guangxia Zhou (Intel Mobile Communications /
Technische Universität Hamburg-Harburg, Germany)
Wen Xu (Intel Mobile Communications, Germany)
Gerhard Bauch (Universitaet der Bundeswehr Munich, Germany)

A Non-asymptotic Throughput for Massive MIMO Cellular Uplink with Pilot Reuse
Yang Li (University of Texas, Dallas, USA)
Young-Han Nam, Boon Loong Ng, Jianzhong Zhang (Samsung, USA)

Baseband Signal Compression in Wireless Base Stations
Aida Vosoughi, Michael Wu, Joseph R. Cavallaro (Rice University, USA)

Optimal 3D Cell Planning: A Random Matrix Approach
Axel Müller (Intel, France)
Jakob Hoydis (Alcatel-Lucent Bell Labs, Germany)
Romain Couillet, Mérouane Debbah (Supelec, France)

Power Efficiency and Consumption Factor Analysis for Broadband Millimeter-Wave Cellular Networks
Theodore Rappaport (NYU-Poly / NYU, USA)
James Murdock (Texas Instruments, USA)

Pairwise Interaction Processes for Modeling Cellular Network Topology
David Taylor, Harpreet S. Dhillon, Thomas Novlan, Jeffrey Andrews
(University of Texas, Austin, USA)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Magic Kingdom Ballroom 1

WN07: 802.16 and LTE Networks
Chair: Channasandra Ravishankar (Hughes Network Systems, USA)

Unified Handover Authentication between Heterogeneous Access Systems in LTE Networks
Jin Cao (Xidian University, China)
Maode Ma (Nanyang Technological University, Singapore)
Hui Li (Xidian University, China)

On the Energy Efficiency of Self-Organizing LTE Cellular Access Networks
Md. Farhad Hossain, Kumudu S. Munasinghe, Abbas Jamalipour
(University of Sydney, Australia)

A Fairness-Based Preemption Algorithm for LTE-Advanced
Mehdi Khabazian (Qatar Mobility Innovations Center /
INRS-EMT, University of Quebec, Qatar)
Osama Kubbar (QU Wireless Innovation Centre, Qatar)
Hossam S. Hassanein (Queen's University, Canada)

Performance Evaluation of a Coordinated Time-Domain eICIC Framework based on ABSF in
Heterogeneous LTE-Advanced Networks
Mahmoud I Kamel, Khaled Elsayed (Cairo University, Egypt)

Adaptive CAC for SVC Video Traffic in IEEE 802.16 Networks
Marwen Abdennebi (University of Paris Nord, France)
Yacine Ghamri-Doudane (ENSIIE / Université Paris-Est, France)

On Interference Alignment in Multi-user OFDM Systems
Yi Xu, Shiwen Mao (Auburn University, USA)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: Magic Kingdom Ballroom 2

WN08: Wireless Sensor Network Design
Chair: Zhili Sun (University of Surrey, UK)

Fault-tolerant Scheduling for Data Collection in Wireless Sensor Networks
Liang Zhang (Hong Kong Polytechnic University, Hong Kong)
Qiang Ye, Jie Cheng (University of Prince Edward Island, Canada)
Hongbo Jiang, Wang Yake
(Huazhong University of Science and Technology & Electronic, China)
Rui Zhou (University of Prince Edward Island, Canada);
Peng Zhao (Ericsson, USA)

OWER-MDG: A Novel Energy Replenishment and Data Gathering Mechanism in Wireless Rechargeable
Sensor Networks
Ji Li (Stony Brook University, USA)
Miao Zhao (Huawei Technologies, USA)
Yuanyuan Yang (Stony Brook University, USA)

An Efficient and Sustainable Self-healing Protocol for Unattended Wireless Sensor Networks
Juan Chen, Hongli Zhang (Harbin Institute of Technology, China)
Fang Binxing Chinese Academy of Sciences, China)
Xiaojiang Du (Temple University, USA)
Haining Yu (Harbin Institute of Technology, China)

Xiangzhan Yu (Harbin Institute of Technology, China)

Aggregating User Rating and Service Context for WSN Service Ranking
Jun Lei, Wenjia Niu, Yifang Qin, Hui Tang (Chinese Academy of Sciences, China)
Song Ci (University of Nebraska-Lincoln, USA)

Exploiting Timing Channel in Intra-body Sensor Networks
Laura Galluccio, Giacomo Morabito, Sergio Palazzo (University of Catania, Italy)

Gaussian Distributed Deployment of Relay Nodes for Wireless Visual Sensor Networks
Hailong Li, Vaibhav Pandi, Dharma P. Agrawal (University of Cincinnati, USA)

Posters

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: South Exhibit Hall

SPC01P: Signal Processing for Communications II
Chair: Kun Yan (Gulin University of Electrical Technology, China)

Joint Optimization for MIMO AF Multiple-Relay Systems with Correlated Channel Uncertainties
Chia-Chang (James) Hu, Yi-Shiang Chiu, Sheng-Shang Lin
(National Chung Cheng University, Taiwan)

Baseband Characterization of Additive White Symmetric α-Stable Noise
Ahmed Mahmood, Mandar Chitre, Marc Armand (National University of Singapore, Singapore)

Green Data Transmission in Power Line Communications
Hongjian Sun, Arumugam Nallanathan (King's College London, UK)
Nan Zhao (Dalian University of Technology, China)
Chengxiang Wang (Heriot-Watt University, UK)

A Non-Uniform Sampling ADC Architecture with Embedded Alias-Free Asynchronous Filter
Dylan Hand, Mike Shuo-Wei Chen (University of Southern California, USA)

Optimal Power Allocation for Active and Passive Localization
Yuan Shen, Wenhan Dai, Moe Win (Massachusetts Institute of Technology, USA)

Correlation-based Cell Search and Measurement for LTE and LTE-A
Wen Xu, Xiaojun Ma (Intel, Germany)

Channel Estimation in Underwater Cooperative OFDM System with Amplify-and-Forward Relaying
Habib Senol, Erdal Panayirci, Mustafa Erdogan (Kadir Has University, Turkey)
Murat Uysal (Ozyegin University, Turkey)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: South Exhibit Hall

WC01P: Wireless Communications I
Chair: Tadashi Nakano (Osaka University, Japan)

On Balancing Energy Efficiency and Estimation Error in Compressed Sensing
Donglin Hu, Shiwen Mao, Nedret Billor (Auburn University, USA)

Full-Duplex Transmissions in Fiber-Connected Distributed Relay Antenna Systems

Hu Jin, Victor CM Leung (University of British Columbia, Canada)

Reliable OFDM System Design under Hostile Multi-tone Jamming
Mai Abdelhakim, Jian Ren, Tongtong Li (Michigan State University, USA)

Performance Enhanced Transmission in Device-to-Device Communications: Beamforming or Interference Cancellation?
Wei Xu, Le Liang, Hua Zhang, Shi Jin (Southeast University, China)
James C. F. Li, Ming Lei (NEC Laboratories China, China)

Multiplexing over Molecular Communication Channels from Nanomachines to a Micro-scale Sensor Device
Michael J. Moore, Tadashi Nakano (Osaka University, Japan)

Multi-User Detection for Asynchronous Space-Frequency Block Coded Schemes in Frequency Selective Environments
Konstantinos Nikitopoulos, Sanaz Barghi, Hamid Jafarkhani, Homayoun Yousefi'zadeh (University of California, Irvine, USA)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: South Exhibit Hall

WC02P: Wireless Communications II
Chair: Li Wang (Beijing University of Posts and Telecommunications, China)

Load-Aware Heterogeneous Cellular Networks: Modeling and SIR Distribution
Harpreet S Dhillon (University of Texas, Austin, USA)
Radha Krishna Ganti (Indian Institute of Technology, Madras, India)
Jeffrey Andrews (University of Texas, Austin, USA)

QoS Driven Energy-Efficient Design for Downlink OFDMA Networks
Cong Xiong, Geoffrey Li (Georgia Tech, USA)
Yalin Liu, Shugong Xu (Huawei, China)

On Gaussian Multiple Access Channel with Signal Dependent Noise
Hai Li, Youjian (Eugene) Eugene Liu (University of Colorado, Boulder, USA)

Spectrum-Efficient Distributed Collaborative Beamforming in the Presence of Local Scattering and Interference
Slim Zaidi (University of Quebec / INRS-EMT, Canada)
Sofiene Affes (INRS-EMT, Canada)

Decentralized Linear Transceiver Design in Coordinated Multi-Cell Multiuser MIMO Systems
Harri Pennanen, Antti Tölli, Matti Latva-aho (University of Oulu, Finland)

A Novel Security-Oriented Cooperative Scheme for Wireless Relay Networks in Presence of Eavesdroppers
Li Wang (Beijing University of Posts and Telecommunications, China)
Xi Zhang (Texas A&M University, USA)
Mei Song (China)
Tenghui Ke (Beijing University of Posts and Telecommunications, China)

Wednesday, 5 December 2012 ● 10:00 – 12:00
Room: South Exhibit Hall

WC03P: Wireless Communications III
Chair: Huiling Zhu (University of Kent, UK)

Analysis of the Indoor Localization Game
Deric Waters, Mohamed Mansour, Ariton Xhafa (Texas Instruments Inc., USA)

A Game Formulation of Duopoly Market with Coexistence of SoftSim and Regular Users
Peng Lin, Qian Zhang, Mounir Hamdi
(Hong Kong University of Science and Technology, China)

Signal Detection and ISI Cancellation for Quantity-based Amplitude Modulation in Diffusion-based
Molecular Communications
Wei-An Lin, Yen-Chi Lee, Ping-Cheng Yeh (National Taiwan University, Taiwan)
Chia-Han Lee (Academia Sinica, Taiwan)

The UC4G Wireless MIMO Testbed
Pat Chambers (Heriot-Watt University, UK)
Xuemin Hong (Xiamen University, China)
Zengmao Chen, Chengxiang Wang (Heriot-Watt University, UK)
Mark Beach (University of Bristol, UK)
Harald Haas (University of Edinburgh, UK)

Wireless MIMO Switching
Fanggang Wang (Beijing Jiaotong University, China)
Soung Chang Liew (Chinese University of Hong Kong, Hong Kong)

Fractional Cooperation in Femtocell Networks
K. V. Srinivas (Samsung, India)
Andrew Eckford (York University, Canada)
Raviraj Adve (University of Toronto, Canada)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room A

AHSN05: Localization and Tracking
Chair: Xiaolin Li (University of Florida, USA)

Angle of Departure Aided Sensor Localization Technique under Multipath Environment
Bobin Yao, Wenjie Wang, Qinye Yin (Xi'an Jiaotong University, China)

Acoustic Ranging and Communication via Microphone Channel
Kaikai Liu, Xinxin Liu, Xiaolin Li (University of Florida, USA)

Device-Free Object Tracking with Wireless Sensors
Ying Zhu, Lixia Chen, Wei Zhang, Ai Chen, Xiaoxia Huang
(Chinese Academy of Sciences, China)

RSS Based Indoor Localization with Limited Deployment Load
Sameh Sorour (King Abdullah University of Science and Technology, Saudi Arabia)
Yves Lostanlen (SIRADEL / University of Toronto, Canada)
Shahrokh Valaee (University of Toronto, Canada)

Multilateration Localization in the Presence of Anchor Location Uncertainties

Yifeng Zhou, Jun Li, Louise Lamont (Communications Research Centre Canada, Canada)

Indoor Positioning and Distance-aware Graph-based Semi-supervised Learning Method
Vahid Pourahmadi, Shahrokh Valaee (University of Toronto, Canada)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room B

AHSN14: Security Issues
Chair: Rui L. Aguiar (University of Aveiro / Instituto de Telecomunicações, Portugal)

On Sleep-wakeup Scheduling of Non-penetrable Barrier-coverage of Wireless Sensors
Donghyun Kim, Jiwoong Kim (North Carolina Central University, USA)
Deying Li (Renmin University of China, China)
Sung-Sik Kwon, Alade Tokuta (North Carolina Central University, USA)

Privacy- and Integrity-Preserving Range Query in Wireless Sensor Networks
Yao-Tung Tsou (National Taiwan University, Taiwan)
Chun-Shien Lu (Academia Sinica, Taiwan)
Sy-Yen Kuo (National Taiwan University, Taiwan)

Privacy-preserving and Secure Top-k Query in Two-tier Wireless Sensor Network
Xiaojing Liao (Georgia Institute of Technology, USA)
Jianzhong Li (Harbin Institute of Technology, China)

A New 'Direction' for Source Location Privacy in Wireless Sensor Networks
Shehla Rana, Nitin Vaidya (University of Illinois, Urbana-Champaign, USA)

VSLP: Voronoi-Socialspot-Aided Packet Forwarding Protocol with Receiver Location Privacy in MSNs
Kuan Zhang, Xiaohui Liang, Rongxing Lu, Sherman Shen (University of Waterloo, Canada)
Hai Zhao (Northestern University, China)

A New Method to Secure RA-OLSR using IBE
Jalel Ben-Othman (University of Paris 13, France)
Yesica Imelda Saavedra Benitez (University of Versailles, France)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room C

CISS05: Internet Security II
Chair: Peter Reiher (UCLA, USA)

Classification of Malicious Network Streams using Honeynets
Fahim Abbasi, Richard J. Harris, Giovanni Moretti (Massey University, New Zealand)
Aun Haider (National Institute of Information and Communications Technology, Japan)
Nafees Anwar (Massey University, New Zealand)

Embedded Markov Process based Model for Performance Analysis of Intrusion Detection and Prevention Systems
Khalid Alsubhi, Mohamed Faten Zhani, Raouf Boutaba (University of Waterloo, Canada)

Backward Traffic Throttling to Mitigate Bandwidth Floods
Yehoshua Gev, Moti Geva, Amir Herzberg (Bar-Ilan University, Israel)

Managing the Adoption of Asymmetric Bidirectional Firewalls: Seeding and Mandating

MHR (Arman) Khouzani (Ohio State University, USA)
Soumya Sen (Princeton University, USA)
Ness B. Shroff (Ohio State University, USA)

Breaching Location Privacy in XMPP based Messaging
Rui Ferreira (Instituto de Telecomunicações, Portugal)
Rui L. Aguiar (University of Aveiro / Instituto de Telecomunicações, Portugal)

Heterogeneity in Vulnerable Hosts Slows Down Worm Propagation
Zesheng Chen, Chao Chen (Indiana University / Purdue University, USA)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room D

CogRN05: Spectrum Sensing I
Chair: Alessandro Vanelli-Coralli (University of Bologna, Italy)

Pattern Classification Techniques for Cooperative Spectrum Sensing in Cognitive Radio Networks: SVM and W-KNN Approaches
Karaputugala Gamacharige Madushan Thilina, Kaewon Choi, Nazmus Saquib, Ekram Hossain
(University of Manitoba, Canada)

A Cooperative DoA-based Algorithm for Localization of Multiple Primary-Users in Cognitive Radio Networks
Jun Wang, Danijela Cabric (University of California Los Angeles, USA)

A Spectrum Sensing Prototype for Japanese Digital Television Signals
Chunyi Song, Hiroshi Harada
(National Institute of Information & Communications Technology, Japan)

A Rollout-based Joint Spectrum Sensing and Access Policy for Cognitive Radio Networks with Hardware Limitations
Lingcen Wu, Wei Wang, Zhaoyang Zhang (Zhejiang University, China)
Lin Chen (The University of Paris-Sud 11, France)

Three Regions for Space-Time Spectrum Sensing and Access in Cognitive Radio Networks
Zhiqing Wei, Zhiyong Feng, Qixun Zhang
(Beijing University of Posts and Telecommunications, China)
Wei Li (University of Victoria, Canada)

Spectrum Sensing Algorithms for Cognitive Radio Based on Polarization Vector's Orientation
Caili Guo (Beijing University of Posts and Telecommunications, China)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: Castle A

CQ05: Traffic Modeling and Performance Evaluation
Chair: Fernando M. Matsubara (Mitsubishi Electric Corporation, Japan)

GROOV: A Geographic ROuting Over VANETs and Its Performance Evaluation
Sanjay Kumar Dhurandher (Netaji Subhas Institute of Technology, India)
Mohammad S. Obaidat (Monmouth University, USA)
Deepti Bhardwaj, Ankush Garg (University of Delhi, India)

Statistical Characteristics of Wireless Link in Opportunistic Networks

Yun Li, Yaozhang Guo, Weiliang Zhao, Jihong Yu
 (Chongqing University of Posts and Telecommunications, China)
Mahmoud Daneshmand (AT&T, USA)

Queueing Model and Optimization of Packet Dropping in Real-Time Wireless Sensor Networks
Antonios Argyriou (University of Thessaly / CERTH, Greece)
Marc Aoun (Philips Research, Netherlands)

Packet Loss Bounds for Asynchronous Bufferless Optical Packet Switches with Limited Range Wavelength Converters
Shuna Yang, Norvald Stol (Norwegian University of Science and Technology, Norway)

A Game-theoretic Approach for Cooperative Transmission Strategy in Wireless Networks
Bin Cao, Gang Feng (University of Electronic Science and Technology of China, China)
Yun Li (ChongQing University of Posts and Telecommunications of China, China)

Performance of Channel Bonding for Opportunistic Spectrum Access Networks
Shaunak Joshi (University of California, Los Angeles, USA)
Przemyslaw Pawełczak (Fraunhofer Henrich Hertz Institute / TU Delft, Germany)
Danijela Cabric, John Villasenor (University of California, Los Angeles, USA)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room F

CSSM05: Cloud and Social Networking
Chair: Athanasios V. Vasilakos (National Technical University of Athens, Greece)

AMVSC: A Framework of Adaptive Mobile Video Streaming in the Cloud
Min Chen (Huazhong University of Science and Technology, China)

Building Cloud-ready Video Transcoding Systems for Content Delivery Networks (CDNs)
Zhenyun Zhuang (Oracle Corporation / Georgia Institute of Technology, USA)
Chun Guo (IeWare Technologies / Ying-Da-Ji Technologies, USA)

ITS-Cloud: Cloud Computing for Intelligent Transportation System
Salim Bitam (Mohamed Khider University of Biskra, Algeria)
Abdelhamid Mellouk (University Paris-Est Creteil Val de Marne, France)

Measurement-driven Temporal Analysis of Information Diffusion in Online Social Networks
Guolin Niu, Victor O. K. Li, Yi Long, Kuang Xu (University of Hong Kong, Hong Kong)

Blind Spots: Unveiling Users' True Willingness in Online Social Networks
Di Wang, Xinxin Liu, Xiaolin Li (University of Florida, USA)

Diffusion of Real-Time Information in Social-Physical Networks
Dajun Qian (Arizona State University, USA)
Osman Yağan (Carnegie Mellon University, USA)
Lei Yang, Junshan Zhang (Arizona State University, USA)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room G

CT04: Interference Management
Chair: Riccardo Raheli (University of Parma, Italy)

Throughput Regions for Fading Interference Channels under Statistical QoS Constraints
Deli Qiao (University of Nebraska-Lincoln, USA)
M. Cenk Gursoy (Syracuse University, USA)
Senem Velipasalar (Syracuse University, USA)

Analog Multitone with Interference Suppression: Relieving the ADC Bottleneck for Wideband 60 GHz Systems
Hong Zhang, Sriram Venkateswaran, Upamanyu Madhow
(University of California, Santa Barbara, USA)

On Optimal Ergodic Interference Alignment
Chunhua Geng, Syed Ali Jafar (University of California Irvine, USA)

The Performance of Successive Interference Cancellation in Random Wireless Networks
Xinchen Zhang, Martin Haenggi (University of Notre Dame, USA)

Uplink Multicell Processing with Limited Backhaul via Successive Interference Cancellation
Lei Zhou, Wei Yu (University of Toronto, Canada)

Towards the Feasibility Conditions for Linear Interference Alignment with Symbol Extensions: A Diversity Constraint
Liangbin Li, Hamid Jafarkhani, Syed Ali Jafar (University of California Irvine, USA)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room I

NGNI05: Resource Allocation and Routing in Next Generation Networks
Chair: Mohammad Reza Nakhai (King's College London, UK)

Adaptive-VNE: A Flexible Resource Allocation for Virtual Network Embedding Algorithm
Ilhem Fajjari (Ginkgo Networks / University Pierre et Marie Curie, France)
Nadjib Aitsaadi (University of Paris-Est Creteil, France)
Guy Pujolle (University Pierre et Marie Curie, France)
Hubert Zimmermann (Ginkgo Networks, France)

A Simple and Cost-Effective EPON-Based 4G Mobile Backhaul RAN Architecture
Syed Rashid Zaidi (City University Of New York, USA)
Shahab Hussain (City University of New York / Alcatel-Lucent, USA)
ASM Delowar Hossain (City University, USA)
Georgios Ellinas (University of Cyprus, Cyprus)
Roger Dorsinville, Mohamed A Ali (City University of New York, USA)

Performance Comparison of Scheduling Algorithms for Multipath Transfer
Amanpreet Singh, Carmelita Goerg (University of Bremen, Germany)
Andreas Timm-Giel (Hamburg University of Technology, Germany)
Michael Scharf, Thomas-Rolf Banniza (Alcatel-Lucent Bell Labs, Germany)

A Novel Incrementally-Deployable Multi-granularity Multihoming Framework for the Future Internet
Jianli Pan, Raj Jain, Subharthi Paul (Washington University in St. Louis, USA)

Fast Failover for Control Traffic in Software-defined Networks
Neda Beheshti, Ying Zhang (Ericsson Research, USA)

A Novel Medium Access Control Protocol for Radio-Over-Fiber Access Networks
Georgios Vasileiou, Georgios Papadimitriou, Petros Nicopolitidis (Aristotle University, Greece)

Panagiotis Sarigiannidis, Malamati Louta (University of Western Macedonia, Greece)
Mohammad S. Obaidat (Monmouth University, USA)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room H

SAC-DS01: Coding and Signal Processing for Data Storage
Chair: Nedeljko Varnica (Marvell, USA)

Numerical Issues Affecting LDPC Error Floors
Brian K. Butler, Paul H. Siegel (University of California, San Diego, USA)

On the Soft Information Extraction from Hard-Decision Outputs in MLC NAND Flash Memory
Daesung Kim (KAIST, Korea)
Jinho Choi (Swansea University, UK)
Jeongseok Ha (KAIST, Korea)

Write-Margin Improvement of Non-Binary LDPC Coding and Iterative Decoding System in BPM R/W
Channel with Write-Errors
Yasuaki Nakamura, Yoshihiro Okamoto, Hisashi Osawa (Ehime University, Japan)
Hajime Aoi, Hiroaki Muraoka (Tohoku University, Japan)

Towards Minimizing Read Time for NAND Flash
Borja Peleato, Rajiv Agarwal, John Cioffi (Stanford University, USA)
Minghai Qin, Paul H. Siegel (University of California, San Diego, USA)

WOM Codes Reduce Write Amplification in NAND Flash Memory
Xiang Luojie (Purdue University, West Lafayette, China)
Brian Michael Kurkoski (Japan Advanced Institute of Science and Technology, Japan)
Eitan Yaakobi (Caltech, USA)

Two-Dimensional Cyclic Codes Correcting Known Error Patterns
Sung Whan Yoon, Jaekyun Moon
(Korea Advanced Institute of Science and Technology, Korea)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room J

SAC-GNCS5: Green Data Centers and Cloud Computing
Chair: Yonggang Wen (Nanyang Technological University, Singapore)

A Survey of Research on Greening Data Centers
Derya Çavdar, Fatih Alagoz (Bogazici University, Turkey)

Energy-aware Virtual Machine Placement in Data Centers
Daochao Huang, Dong Yang (Beijing Jiaotong University, China)
Lei Wu (IBM China Development Laboratory, China)
Hongke Zhang (Beijing University of Posts and Telecommunications, China)

The Impact of Time of Use (ToU)-Awareness in Energy and Opex Performance of a Cloud Backbone
Burak Kantarci, Hussein T Mouftah (University of Ottawa, Canada)

Energy Optimizations for Data Center Network: Formulation and its Solution
Shuo Fang, Hui Li, Chuan Heng Foh, Yonggang Wen
(Nanyang Technological University, Singapore)

Khin Mi Mi Aung (A*STAR, Singapore)

Unveiling the Resource Consumption Overhead of Virtual Machine Consolidation in Data Centers
Mingfu Li, Wei Liang, Jingping Bi, Zhongcheng Li (Chinese Academy of Sciences, China)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: Castle B

SPC07: Signal Processing for Communications I
Chair: Yabo Li (Zhejiang University, China)

Decision Feedback Turbo Equalization for OFDM over Doubly Selective Channels
Imad Barhumi (United Arab Emirates University, UAE)

Blind Known Interference Cancellation with Parallel Real Valued Belief Propagation Algorithm
Shengli Zhang (Shenzhen University, China)
Soung Chang Liew, Lu Lu (Chinese University of Hong Kong, Hong Kong)
Hui Wang (Shenzhen University, China)

Performance Analysis of Code-Aided Iterative Hard/Soft Decision-Directed Carrier Phase Recovery
Nan Wu (Beijing Institute of Technology, China)
Hua Wang (Modern Comm. Lab, China)
Zhixin Li, Jingming Kuang (Beijing Institute of Technology, China)

Optimal Detection for Diffusion-Based Communications in the Presence of ISI
Ling-San Meng, Ping-Cheng Yeh, Kwang-Cheng Chen (National Taiwan University, Taiwan)
Ian F. Akyildiz (Georgia Institute of Technology, USA)

A Same-Frequency Cellular Repeater Using Adaptive Feedback Cancellation
Dennis R. Morgan (Bell Laboratories, Alcatel-Lucent, USA)
 Zhengxiang Ma (Huawei Technologies, USA)

Joint Transceiver Design for Iterative FDE
Wei Han, Qinye Yin, Lin Bai, Bobin Yao, Ang Feng (Xi'an Jiaotong University, China)

W Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: Castle C

C14: Relay Technologies: Decode-and-Forward
Chair: Fulvio Babich (University of Trieste, Italy)

QoS-Aware Policies for OFDM Bidirectional Transmission with Decode-and-Forward Relaying
Yuan Liu, Jianhua Mo, Meixia Tao (Shanghai Jiao Tong University, China)

Multi-Level Compress and Forward Coding for Half-Duplex Relays
Jaweria Amjad (National University of Sciences & Technology, Pakistan)
Momin Uppal (Lahore University of Management Sciences, Pakistan)
Saad B. Qaisar (National University of Sciences & Technology, Pakistan)

Resource Allocation Using A Reverse Iterative Combinatorial Auction for Device-to-Device Underlay
Cellular Networks
Chen Xu, Lingyang Song (Peking University, China)
Zhu Han (University of Houston, USA)
Do Li, Bingli Jiao (Peking University, China)

Optimal Beamforming for MIMO Decode-and-Forward Relay Channels
Zhengfeng Xu, Pingyi Fan (Tsinghua University, China)
Hong-Chuan Yang (University of Victoria, Canada)
Ke Xiong (Tsinghua University, China)
Ming Lei, Su Yi (NEC Labs, China)

Outage Performance for Interference-Limited Decode-and-Forward Two-Way Relaying Networks
Liang Xuesong, Shi Jin, Xiqi Gao (Southeast University, China)
Kai Kit Wong (University College London, UK)
Chen Sun (Southeast University, China)

Exact Outage Probability of Opportunistic DF Relay Systems with Interference at Both the Relay and the Destination over Nakagami-m Fading Channels
Anas M. Salhab (King Fahd University of Petroleum & Minerals, Saudi Arabia)
Fawaz Al-Qahtani (Texas A&M University / Education City, Qatar)
Salam A. Zummo (KFUPM, Saudi Arabia)
Hussein Alnuweiri (Texas A&M University, Qatar)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: Monorail A

WC15: OFDMA
Chair: Huan X. Nguyen (Middlesex University, UK)

Joint Evaluation of Reduced Feedback Scheme, Scheduling, and Rate Adaptation in OFDMA Systems with Feedback Delays
Subhojit Guharoy, Neelesh B. Mehta (Indian Institute of Science, India)

Joint Subchannel and Power Allocation in Interference-Limited OFDMA Femtocells with Heterogeneous QoS Guarantee
Haijun Zhang, Wei Zheng (Beijing University of Posts and Telecommunications, China)
Xiaoli Chu (University of Sheffield, UK)
Xiangming Wen (Beijing University of Posts and Telecommunications, China)
Meixia Tao (Shanghai Jiaotong University, China)
Arumugam Nallanathan (King's College London, UK)
David Lopez-Perez (Bell Labs Alcatel-Lucent, Ireland)

Capacity-Achieving Resource Allocation for OFDMA Fading Channels
Zhaoquan Li, Xin Wang (Florida Atlantic University, USA)

A Message Passing Approach for Resource Allocation in Cellular OFDMA Communications
Andrea Abrardo (University of Siena, Italy)
Marco Belleschi (Ericsson AB, Sweden)
Gabor Fodor (Royal Institute of Technology, Sweden); Marco Moretti (Università di Pisa, Italy)

Energy-efficient Resource Allocation for Uplink OFDMA Systems Using Correlated Equilibrium
Dan Wu (Institute of Communications Engineering, PLAUST, China)
Liang Zhou (Nanjing University of Posts and Telecommunications, China)
Cai Yueming (Institute of Communications Engineering, PLAUST, China)
Joel J. P. C. Rodrigues (University of Beira Interior, Portugal)

Joint Beamforming, Resource Allocation, and Scheduling for Multi-Cell Multi-User MIMO-OFDMA Systems
Jun Zhu, Robert Schober, Vijay Bhargava (University of British Columbia, Canada)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: Monorail B

WC16: MIMO Systems: Performance Analysis
Chair: Jinho Choi (Swansea University, UK)

Antenna Selection and Power Combining for Transmit Beamforming in MIMO Systems
Tae Min Kim (Stanford University, USA)
Alireza Ghaderipoor (Broadcom, USA)
Arogyaswami Paulraj (Stanford University, USA)

Receive Antenna Subset Selection for Time-Varying Channels Using Slepian Subspace Projections
Hassan Abou Saleh, Steven D Blostein (Queen's University, Canada)

Capacity Bounds of Downlink Network MIMO Systems with Inter-Cluster Interference
Zhiyuan Jiang, Sheng Zhou, Zhisheng Niu (Tsinghua University, China)

Transparent User-Specific 3D MIMO in FDD Using Beamspace Methods
Timothy A. Thomas, Frederick W. Vook (Nokia Siemens Networks, USA)

Performance of Precoding Assisted Dual-Polarized Multi-cell MIMO Downlink Communications
Shriram Swaminathan, Gordon Stüber (Georgia Institute of Technology, USA)

On the Capacity of Airborne MIMO Communications
Weifeng Su (State University of New York, Buffalo, USA)
John Matyjas, Michael Gans (Air Force Research Laboratory, USA)
Stella Batalama (State University of New York, Buffalo, USA)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: Monorail C

WC17: Routing and Scheduling
Chair: Qian (Clara) Li (Intel Corporation, China)

Opportunistic Scheduling in Dual-Hop Multiuser Relay Networks in the Presence of Co-Channel Interference
Kasun T. Hemachandra, Norman C. Beaulieu (University of Alberta, Canada)

On Cooperative Wireless Relaying: A Joint Routing and Scheduling Flow-based Framework
Samat Shabdanov, Patrick Mitran, Catherine Rosenberg (University of Waterloo, Canada)

Novel Scheduling for a Mixture of Real-time and Non-real-time Traffic
Huseyin Haci, Huiling Zhu, Jiangzhou Wang (University of Kent, UK)

Single and Multi-Cell Scheduling in Coordinated Multi-Point Distributed Antenna Systems
Runhua Chen (Texas Instruments Incorporated, USA)
Ralf M Bendlin (University of Notre Dame, USA)
Eko Onggosanusi, Anthony E Ekpenyong (Texas Instruments, USA)

Searching for Optimal Scheduling of MIMO Doubly Iterative Receivers: An Ant Colony Optimization-Based Method
Dan Zhang, Gaojian Wang, Gerd H. Ascheid, Heinrich Meyr (RWTH Aachen University, Germany)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: Magic Kingdom Ballroom 1

WN09: Cellular Networks II
Chair: Marwen Abdennebi (University of Paris Nord, France)

Fundamentals of Mobility in Cellular Networks: Modeling and Analysis
Xingqin Lin (University of Texas, Austin, USA)
Radha Krishna Ganti (Indian Institute of Technology Madras, India)
Philip J Fleming (Nokia Siemens Networks USA, USA)
Jeffrey Andrews (University of Texas, Austin, USA)

Improving Soft Frequency Reuse for Realistic OFDMA-based Cellular Deployments
David González G. Mario Garcia-Lozano, Silvia Ruiz Boqué, (Universitat Politècnica de Catalunya, Spain)
DongSeop Lee (International Center for Numerical Methods in Engineering
/ Deloitte Consulting - Korea, Spain)

Dynamic Inter-Cell Interference Coordination in HetNets: A Reinforcement Learning Approach
Meryem Simsek (University of Duisburg-Essen, Germany)
Mehdi Bennis (University of Oulu, Finland)
Andreas Czylwik (Universität Duisburg-Essen, Germany)

Fair Resource Allocation for Device-to-Device Communications in Wireless Cellular Networks
Long Bao Le (INRS, University of Quebec, Canada)

A Proportional Fair Radio Resource Allocation for Heterogeneous Cellular Networks with Relays
Qian (Clara) Li (Intel Corporation, China)
Rose Qingyang Hu (Utah State University, USA)
Yi Qian (University of Nebraska-Lincoln, USA)
Geng Wu (Intel Corporation, USA)

Robust Multicasting in Micro Base Station Aided Wireless Cellular Networks
Izhak Rubin, Hung-Bin Chang (University of California, Los Angeles, USA)
Reuven Cohen (Technion, Israel)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: Magic Kingdom Ballroom 2

WN10: Medium Access Control
Chair: Ariton Xhafa (Texas Instruments Inc., USA)

Compressive Sensing Medium Access Control for Wireless LANs
Tsung-Han Lin, Ht Kung (Harvard University, USA)

Lifetime Extended Cooperative MAC Protocol for Wireless LANs
Jing Liu, Wenlin Wang (Shanghai Jiaotong University, China)
Zhongming Zheng, Xiaoxia Zhang (University of Waterloo, Canada)
Chen Chen (China Samsung Telecom R&D Center, China)
Sherman Shen (University of Waterloo, Canada)

Performance Analysis of Cooperative Ad Hoc MAC for Vehicular Networks
Sailesh Bharati, Weihua Zhuang (University of Waterloo, Canada)

A Novel Collision Probability based Adaptive Contention Windows Adjustment for QoS fairness on Ad Hoc Wireless network
Hengheng Xie (Paradise Research Lab, Canada)
Richard W. Pazzi (University of Ontario Institute of Technology, Canada)

Azzedine Boukerche (University of Ottawa, Canada)

Retransmission Rate Selection for Block-based Partial Packet Recovery
Haonan Lu, Shuaiyuan Zhou, Zhenghao Zhang (Florida State University, USA)

Prototyping of Time-Division Unbalanced Carrier Sense Multiple Access and First Experiments
Andrea Vesco, Gian Marco Toso, Riccardo M. Scopigno (Istituto Superiore Mario Boella, Italy)

Posters

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: South Exhibit Hall

AHSNP: I
Chair: Jian Zhen (University of California, Santa Barbara, USA)

Long-Term Clock Synchronization in Wireless Sensor Networks with Arbitrary Delay Distributions
Wanlu Sun, Erik G Ström, Fredrik Brännström
(Chalmers University of Technology, Sweden)
Debarati Sen (Samsung Electronics, Bangalore /
Indian Institute of Technology, Kharagpur, India)

Dynamic Flooding Time Synchronisation Protocol
Jonathan Shannon, Hugh Melvin (National University of Ireland, Galway, Ireland)
Antonio G. Ruzzelli (University College Dublin, Ireland)

An Efficient Hybrid Localization Scheme for Heterogeneous Wireless Networks
Zimu Yuan, Wei Li (Chinese Academy of Sciences, China)
Adam C. Champion (Ohio State University, USA)
Wei Zhao (University of Macau, Macao)

A Cellular Pulse Switching Architecture for Binary Event Sensing
Qiong Huo, Bo Dong, Subir Biswas (Michigan State University, USA)

Analytical Modelling of RFID Generation-2 Protocol Using Absorbing Markov Chain Theorem
Ehsan Vahedi, Rabab Ward, Ian Blake (University of British Columbia, Canada)

Secure Gateway Localization and Communication System for Vehicular Ad Hoc Networks
Kaouther Abrougui, Azzedine Boukerche, Yan Wang (University of Ottawa, Canada)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: South Exhibit Hall

CQ10P: Topics in QoS, Reliability and Modeling
Chair: Qiang Duan (Pennsylvania State University, USA)

Robust Bandwidth Allocation in Wireless Mesh Network
Kien Thuc Tran, Sudarshan Guruacharya, Dusit Niyato
(Nanyang Technological University, Singapore)

Service Provisioning in Virtualization-based Cloud Computing: Modeling and Optimization
Jun Huang, Yanbing Liu (Chongqing University of Posts and Telecomm, China)
Qiang Duan (Pennsylvania State University, USA)

Analysis of a Hurst Parameter Estimator Based on the Modified Allan Variance

Alessandra Bianchi (University of Bologna, Italy)
Stefano Bregni (Politecnico di Milano, Italy)
Irene Crimaldi (Institute for Advanced Studies, Italy)
Marco Ferrari (Politecnico di Milano, Italy)

Cooperative Communications: from Theory to Experimental Implementation
Jesus Alonso-Zarate (Centre Tecnologic de Telecomunicacions de Catalunya, Spain)
Javier Sánchez Recacha (Universitat Politècnica de Catalunya, Spain)
Nizar Zorba (QMIC, Qatar)
Ana Perez-Neira (Universitat Politècnica de Catalunya, Spain)
Christos Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)

ANFIS-based Quality Prediction Models for AMR Telephony in Public 2G/3G Mobile Networks
Charalampos N. Pitas, Dimitris Charilas, Athanasios D. Panagopoulos
(National Technical University of Athens, Greece)
Periklis Chatzimisios (Alexander Technological Educational Institute of Thessaloniki, Greece)
Philip Constantinou (National Technical University of Athens, Greece)

Delay-Stable Communications in Simultaneous Multicast Networks
David A. Miller, Ahmed E. Kamal (Iowa State University, USA)

Opportunistic Network and Erasure Coding for Asynchronous Two-Way Relay Networks
Scott H. Melvin, Jacek Ilow (Dalhousie University, Canada)

Design and Analysis for Reliable Broadcast Transmission in Energy Harvesting Networks
Ching-Chun Kuan, Hung-Yu Wei (National Taiwan University, Taiwan)

Intelligent Routing in Congested Approximate Flow-Aware Networks
Jerzy Domżał (AGH University of Science and Technology, Poland)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: South Exhibit Hall

CSSMP: Communications and Multimedia Service
Chair: Donglin Hu (Auburn University, USA)

An Economic Framework for Information Platform
Yanjiao Chen, Qian Zhang (Hong Kong University of Science and Technology, Hong Kong)

Who Are Active? An In-depth Study on User Activity Characteristics in Sina Microblogging
Chenxu Wang (Xi'an Jiaotong University, China)
Xiaohong Guan (Xi'an Jiaotong University / Tsinghua University, China)
Tao Qin, Wei Li (Xi'an Jiaotong University, China)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: South Exhibit Hall

ONS05P: Miscellaneous Topics in Optical Networks & Systems
Chairs: Brigitte Jaumard (Concordia University, Canada)
Frank Effenberger (HUAWEI, UK)

Batch Scheduling in Optical Networks with Feedback/Feed-forward Fiber Delay Lines
Yang Wang, Xiaojun Cao, Adrian Caciula, Qian Hu (Georgia State University, USA)

Wavelength Management in Time and Wavelength Division Multiplexed Passive Optical Networks (TWDM-PONs)
Yuanqiu Luo, Meng Sui (Huawei, USA)
Frank Effenberger (Huawei, UK)

A p-Center Optimization Scheme for the Design and Dimensioning of a Set of WDM PONs
Rejaul Chowdhury, Brigitte Jaumard (Concordia University, Canada)

Combined Constrained Code and LDPC Code for Long-Haul Fiber-Optic Communication Systems
Houbing Song (West Virginia University, USA)
Maite Brandt-Pearce, Tingjun Xie, Stephen G. Wilson (University of Virginia, USA)

Wednesday, 5 December 2012 ● 13:30 – 15:30
Room: South Exhibit Hall

WN18P: Topics in Wireless Networking
Chairs: Haopeng Li (University of North Carolina, Charlotte, USA)
Zhangdui Zhong (Beijing Jiaotong University, China)

MIMO Communications Based on Molecular Diffusion
Ling-San Meng, Ping-Cheng Yeh, Kwang-Cheng Chen (National Taiwan University, Taiwan)
Ian F. Akyildiz (Georgia Institute of Technology, USA)

Compressive Sensing with Optimal Sparsifying Basis and Applications in Spectrum Sensing
Youngjune L. Gwon, Ht Kung, Dario Vlah (Harvard University, USA)

Spatial Reuse Strategy in mmWave WPANs with Directional Antennas
Qian Chen, Xiaoming Peng (Institute for InfoComm Research, Singapore)
Juan Yang (National Southeast University, China)
Francois Chin (Institue for InfoComm Research, Singapore)

Two-Tier WBAN/WLAN Healthcare Networks; Priority Considerations
Saeed Rashwand (University of Manitoba, Canada)
Jelena Mišić (Ryerson University, Canada)

Metropolitan-Scale Taxicab Mobility Modeling
Lei Zhang, Maryam Ahmadi, Jianping Pan, Le Chang (University of Victoria, Canada)

Extracting Typical Users' Moving Patterns Using Deep Learning
Nam Tuan Nguyen (University of Houston, USA)
Yichuan Wang (University of California, Davis, USA)
Husheng Li (University of Tennessee, USA)
Xin Liu (University of California, Davis, USA)
Zhu Han (University of Houston, USA)

An Information Theoretic Location Verification System for Wireless Networks
Shihao Yan, Robert Malaney (University of New South Wales, Australia)
Ido Nevat (CSIRO, Australia)
Gareth Peters (University of New South Wales, Australia)

Finite State Markov Modelling for High Speed Railway Wireless Communication Channel
Siyu Lin (Beijing Jiaotong University / University of Victoria, China)
Zhangdui Zhong (Beijing Jiaotong University, China)
Lin Cai, Yuanqian Luo (University of Victoria, Canada)

Spectrum Broker by Geo-location Database
Yuan Luo, Lin Gao, Jianwei Huang (Chinese University of Hong Kong, Hong Kong)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room A

AHSN06: Cognitive Networking
Chair: Zhili Sun (University of Surrey, UK)

A Dynamic Channel Allocation Scheme Using Spectrum Sensing for Mobile Ad Hoc Networks
Bora Karaoglu, Wendi Heinzelman (University of Rochester, USA)

Delay Minimization through Joint Routing and Resource Allocation in Cognitive Radio-Based Mesh
Networks
Amr El-Sherif (Alexandria University, Egypt)
Amr Mohamed (Qatar University, Qatar)

Rank-Optimal Channel Selection Strategy in Cognitive Networks
Narjes Torabi, Karim Rostamzadeh, Victor CM Leung (University of British Columbia, Canada)

Energy-efficient Power Allocation in Cognitive Sensor Networks: A Game Theoretic Approach
Bo Chai, Ruilong Deng, Peng Cheng, Jiming Chen (Zhejiang University, China)

FCM: Frequency Domain Cooperative Sensing and Multi-channel Contention for CRAHNs
Lu Wang (Hong Kong University of Science and Technology, Hong Kong)
Kaishun Wu (HKUST / Sun Yat-sen University, Hong Kong)
Jiang Xiao, Mounir Hamdi (Hong Kong University of Science and Technology, China)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room B

AHSN15: MAC
Chair: Periklis Chatzimisios
(Alexander Technological Educational Institute of Thessaloniki, Greece)

Non-saturated Performance Analysis of IEEE 802.11 Broadcast in 2-D Mobile Ad Hoc Networks
Minming Ni, Zhangdui Zhong (Beijing Jiaotong University, China)
Jianping Pan (University of Victoria, Canada)
Dongmei Zhao (McMaster University, Canada)
Ruifeng Chen (Beijing Jiaotong University, China)

An Energy Efficient Multi-channel MAC Protocol for Wireless Ad hoc Networks
Duc Ngoc Minh Dang, Mui Van Nguyen, Choong Seon Hong, Sungwon Lee
(Kyung Hee University, Korea)
Kwangsue Chung (Kwangwoon University, Korea)

Automated MAC Protocol Generation for Dynamic Topologies
Jian Zhen, Volkan Rodoplu (University of California, Santa Barbara, USA)

IEEE 802.11 Wireless LANs: Non-saturation Queueing and Delay Analysis
Ahed Alshanyour (Ericsson Canada Inc, Canada)
Anjali Agarwal (Concordia University, Canada)

Toward MAC Protocol Service over the Air
Tae-Suk Kim, Tae Rim Park (Samsung Advanced Institute of Technology, Korea)
Mo Sha (Washington University in St. Louis, USA)
Chenyang Lu (Washington University in St. Louis, USA)

An Upper Bound on Transmission Capacity of Wireless CSMA Networks
Tao Yang, Guoqiang Mao, Wei Zhang (University of New South Wales, Australia)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room C

CISS06: Security in Cyber-Physical Systems
Chair: Rongxing Lu (University of Waterloo, Canada)

EDR: An Efficient Demand Response Scheme for Achieving Forward Secrecy in Smart Grid
Hongwei Li (University of Electronic Science and Technology of China, China)
Xiaohui Liang, Rongxing Lu (University of Waterloo, Canada)
Xiaodong Lin (University of Ontario Institute of Technology, Canada)
Sherman Shen (University of Waterloo, Canada)

Load Distribution Vector Based Attack Strategies against Power Grid Systems
Yihai Zhu, Yan Sun, Haibo He (University of Rhode Island, USA)

Securing Wireless Medical Devices
Asaad Kaadan, Hazem Refai (Oklahoma University, USA)

Secure and Efficient Constructions of Hash, MAC and PRF for Mobile Devices
Yan Zhu, Shanbiao Wang (Peking University, China)
Di Ma (University of Michigan-Dearborn, USA)
Hongxin Hu (Delaware State University, USA)
Gail-Joon Ahn (Arizona State University, USA)

Textact: A Text-Action based Web Authentication Scheme
Muhammad N. Sakib, Chin-Tser Huang (University of South Carolina, USA)

Behavior Spectrum: An Effective Method for User's WEB Access Behavior Monitoring and Measurement
Tao Qin, Wei Li (Xi'an JiaoTong University, China)
Xiaohong Guan (Xi'an Jiaotong University / Tsinghua University, China)
Zhaoli Liu (Xi'an Jiaotong University, China)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room D

CogRN06: Modeling and Analysis of Cognitive Radio Networks
Chair: Hiroyuki Shiba (NTT, Japan)

Complexity Analysis of Spectrum Access Strategies with Channel Aggregation in CR Networks
Indika A. M. Balapuwaduge, Lei Jiao, Frank Y. Li (University of Agder, Norway)

TV White Space Availability in Japan Estimated Using D/U-based and I/N-based Protection Rules
Teppei Oyama, Tsuyoshi Shimomura, Hiroyuki Seki (Fujitsu Laboratories Ltd., Japan)

Primary User Behavior Estimation with Adaptive Length of the Sample Sequence
Xiaoyuan Li, Xiang Mao (University of Florida, USA)
Dexiang Wang (Juniper Networks, USA)

Janise McNair, Jianmin Chen (University of Florida, USA)

Enhancing the Performance of Spectrum-Sharing Systems via Collaborative Distributed Beamforming and AF Relaying
Ali Afana (Concordia University, Canada)
Vahid Asghari (University of Quebec, INRS-EMT, Canada)
Ali Ghrayeb (Concordia University, Canada)
Sofiene Affes (INRS-EMT, Canada)

Minimum BER Analysis in Cognitive Radio
Mohammad Robat Mili, Khairi A. Hamdi (University of Manchester, UK)

Performance Modeling of Secondary Users in CRNs with Heterogeneous Channels
Sharhabeel H. Alnabelsi, Ahmed E. Kamal (Iowa State University, USA)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Magic Kingdom Ballroom 4

CQ06: Traffic Control
Chair: Christos Douligeris (University of Piraeus, Greece)

IPTV QoS and QoE Measurements in Wired and Wireless Networks
Georgios Baltoglou (Royal Institute of Technology, Sweden)
Eirini Karapistoli (University of Macedonia, Greece)
Periklis Chatzimisios (Alexander Technological Educational Institute of Thessaloniki, Greece)

Benchmarking of Compressed DFAs for Traffic Identification: Decoupling Data Structures from Models
Wesley Melo (Federal University of Pernambuco, Brazil)
Stenio Fernandes (Federal University of Pernambuco, Brazil)
Rafael T. Antonello (Federal University of Pernambuco / Brazilian Federal Institute of Education, Brazil)
Djamel Hadj Sadok, Judith Kelner (Federal University of Pernambuco, Brazil)
Géza Szabó (Ericsson Research, Hungary)

An Empirical Study of Effective Capacity Throughputs in 802.11 Wireless Networks
Alan Davy, Brian Meskill (Waterford Institute of Technology, Ireland)
Jordi Domingo-Pascual (Universitat Politècnica de Catalunya / Technical University of Catalunya, Spain)

Efficient DFA Grouping for Traffic Identification
Rafael T Antonello (Federal University of Pernambuco / Brazilian Federal Institute of Education, Brazil)
Stenio Fernandes (Federal University of Pernambuco, Brazil)
Alysson Feitoza Santos (UFPE / GPRT, Brazil)
Djamel Hadj Sadok (Federal University of Pernambuco, Brazil)
Géza Szabó (Ericsson Research, Hungary)

QoS-aware Cross-layer Design in Multirate Wireless Networks with ARQ Feedback Delay
Peng Jisheng (Graduate University of Chinese Academy of Sciences, China)
Lin Tian, Yiqing Zhou (Chinese Academy of Science, China)

A Weight-Optimized Source Rate Optimization in Energy Harvesting Wireless Sensor Networks
Runan Yao, Wei Wang (South Dakota State University, USA)
Kazem Sohraby (South Dakota School of Mines and Technology, USA)
Shi Jin (Southeast University, China)
Sunho Lim (Texas Tech University, USA)
Zhu Hongbo (Nanjing University of Post and Telecommunications, China)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room F

CSSM06: Security and Multimedia Streaming
Chair: Ruolin Zhou (Western New England University, USA)

Secure and Traceable Online Image Sharing
Kohei Sugiyama, Masaki Fukushima, Atsushi Tagami, Teruyuki Hasegawa
(KDDI R&D Laboratories Inc., Japan)

Finding out the Liars: Fighting against False Channel Information Exchange Attacks in Cognitive Radio Ad Hoc Networks
Yi Song, Linda Jiang Xie (University of North Carolina, Charlotte, USA)

Modeling an NGN Authentication Solution and Improving its Performance through Clustering
Songbo Song (France Telecom, France)
Hassnaa Moustafa (Intel, USA)
Hossam Afifi (Institut Telecom / Paris South, France)

Traffic Models for H.264 Video Using Hierarchical Prediction Structures
Akshay Pulipaka (Arizona State University, USA)
Patrick Seeling (Central Michigan University, USA)
Martin Reisslein (Arizona State University, USA)

Inter-Layer FEC Decoded Multi-Layer Video Streaming
Yongkai Huo, Xin Zuo, Robert G. Maunder, Lajos Hanzo (University of Southampton, UK)

Optimal Joint Base Station and User Equipment (BS-UE) Admission Control for Energy-Efficient Green Wireless Cellular Networks
Qingmin Wang (Dalian University of Technology, China)
F. Richard Yu (Carleton University, Canada)
Yi Sun (Dalian University of Technology, China)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room G

CT05: Coding Techniques
Chair: Shahram Yousefi (Queen's University, Canada)

Wireless Index Coding
Syed Ali Jafar (University of California Irvine, USA)

Joint Compute and Forward for the Two Way Relay Channel with Spatially Coupled LDPC Codes
Brett Hern, Krishna Narayanan (Texas A&M University, USA)

Superposition Modulation with Irregular Convolutional Coding
Meelis Noemm, Alaa Mourad, Peter A. Hoeher (University of Kiel, Germany)

Cross-Layer Design of Energy Efficient Coded ARQ Systems
Gang Wang, Jingxian Wu (University of Arkansas, USA)
Yahong Rosa Zheng (Missouri University of Science and Technology, USA)

New PMEPR Bounding Analysis for Coded OFDM Transmitters
Scott CH Huang (National Tsing Hua University, Taiwan)
Hsiao-Chun Wu (Louisiana State University, USA)

Efficient Concatenated Coding Schemes for Error Floor Reduction of LDPC and Turbo Product Codes
Damián Morero (National University of Cordoba, Argentina)
Mario R. Hueda (National University of Cordoba / CONICET, Argentina)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room Room H

NGNI06: P2P and Content Centric Networks
Chair: Shingo Ata (Osaka City University, Japan)

Content-Based Route Lookup using CAM
Yan Sun (Broadcom, USA)
Norbert Egi, Guangyu Shi, Jianming Wu (Huawei, USA)

Rarest-first and Coding Are Not Enough
Dinh Nguyen, Hidenori Nakazato (Waseda University, Japan)

Modeling and Analysis of PeerTrust-Like Trust Mechanisms in P2P Networks
Miao Wang, Zhijun Xu, Yujun Zhang, Hongmei Zhang (Chinese Academy of Sciences, China)

Efficient Query Bundling Mechanism in a DHT Network
Kimihiro Mizutani, Toru Mano, Osamu Akashi (NTT, Japan)
Kensuke Fukuda (National Institute of Informatics, Japan)

Route Discovery and Caching: A Way to Improve the Scalability of Information-Centric Networking
Nicola Blefari-Melazzi, Andrea Detti, Matteo Pomposini, Stefano Salsano
(University of Rome "Tor Vergata", Italy)

Improving Content Availability by Request-Adaptive Incentive in Private Peer-to-Peer Communities
Honglei Jiang (Huazhong University of Science and Technology, China)
Song Guo (University of Aizu, Japan)
Deze Zeng (University of Aizu / Huazhong University of Science and Technology, Japan)
Hai Jin (Huazhong University of Science and Technology, China)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room I

SAC-ASN2: System, Architectures & Algorithms
Chair: Ravi Subrahmanyan (Invisage Technologies, USA)

State Aware Enhancement in DCCP for Multimedia Handovers
Zawar Shah, Adeel Baig, Hira Samir, Imdad Ullah
(National University of Sciences and Technology, Pakistan)

Data Traffic Scheduling for Cyber Physical Systems with Application in Voltage Control of Microgrids
Husheng Li (University of Tennessee, USA)

Analog Bloom Filter: Efficient Simultaneous Query for Wireless Networks
Zhenghao Zhang (Florida State University, USA)

A Two Phase Hybrid RSS/AoA Algorithm for Indoor Device Localization using Visible Light
Gregory B. Prince, Thomas DC Little (Boston University & NSF Smart Lighting ERC, USA)

CacheQuery: A Practical Asymmetric Communication Algorithm

Yu-Sian Li (National Tsing Hua University, Taiwan)
Trang Minh Cao (Universitat Pompeu Fabra, Spain)
Xin Huang (Deutsche Telekom R&D Lab USA, USA)
Cheng-Hsin Hsu (National Tsing Hua University, Taiwan)
Po-Ching Lin (National Chung Cheng University, Taiwan)

VoIP over Realistic IEEE 802.16e System Scenarios: The Uplink Direction
Doru Calin (Bell Labs, Alcatel-Lucent, USA)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room J

SAC-GNCS6: Physical Layer Designs for Green Communications
Chair: Sumei Sun (Institute for Infocomm Research, Singapore)

Peak Power Reduction of SC-FDMA Signals Based on Trellis Shaping
Taewoo Lee, Hideki Ochiai (Yokohama National University, Japan)

Tradeoff of Spectral and Energy Efficiencies: Impact of Power Amplifier on OFDM Systems
Jingon Joung (Institute for Infocomm Research, Singapore)
Chin Keong Ho (Institute for Infocomm Research, A*STAR, Singapore)
Sumei Sun (Institute for Infocomm Research, Singapore)

A Stackelberg Approach for Energy Efficient Multicarrier Systems
Yezekael Hayel (University of Avignon, France)
Majed Haddad (INRIA, France)

Choosing "Green" Codes by Simulation-based Modeling of Implementations
Karthik Ganesan, Yang Wen (University of California - Berkeley, USA)
Pulkit Grover, Andrea Goldsmith (Stanford University, USA)
Jan Rabaey (University of California, Berkeley, USA)

On Energy Efficient Transceivers Equipped with a Compact Antenna Array
Jinhui Chen. insong Wu (Bell Laboratories & Alcatel-Lucent, China)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Castle A

SAC-SSC01: Satellite & Space Networking
Chair: Hiromitsu Wakana (National Institute of Information & Communications Technology, Japan)

Advanced Transport Satellite Protocol
Muhammad Muhammad, Firat Kasmis, Tomaso De Cola (German Aerospace Center (DLR), Germany)

Sliding Window-Based Contention Resolution Diversity Slotted ALOHA
Alessio Meloni, Maurizio Murroni (University of Cagliari, Italy)
Christian Kissling, Matteo Berioli (German Aerospace Center, Germany)

Capacity Bound of MOP-based Allocation with Packet Loss and Power Metrics in Satellite
Communications Systems
Igor Bisio, Stefano Delucchi, Fabio Lavagetto, Mario Marchese (University of Genoa, Italy)

Energy Efficient CPM Waveforms for Satellite Mesh Networks
Rosalba Suffritti (Mavigex, Italy)
Francesco Lombardo (University of Bologna, Italy)

Amina Piemontese (University of Parma, Italy)
Alessandro Vanelli-Coralli, Enzo Alberto Candreva (University of Bologna, Italy)
Giulio Colavolpe (University of Parma, Italy)
Riccardo Baroni, Stefano Andrenacci, Giovanni Emanuele Corazza (University of Bologna, Italy)
Nader Alagha (European Space Agency, Netherlands)

Impact of Scheduling in the Return-Link of Multi-Beam Satellite MIMO Systems
Vincent Boussemart, Loris Marini, Matteo Berioli (German Aerospace Center, Germany)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Castle B

SPC08: MIMO II
Chair: Wei Xu (Southeast University, China)

Weighted Sum Rate Maximization for Interfering Broadcast Channel via Successive Convex
Approximation
Jarkko Kaleva, Antti Tölli, Markku Juntti (University of Oulu, Finland)

Low Complexity Adaptive Antenna Selection for Cognitive Radio MIMO Broadcast Channels
Efthymios Stathakis, Chao Wang, Lars K. Rasmussen, Mikael Skoglund
(Royal Institute of Technology, Sweden)

Unitary Precoding for MIMO Interference Networks
Andreas Dotzler (Technische Universität München, Germany)
Guido K E Dietl (University of Applied Sciences Landshut / DOCOMO Euro-Labs, Germany)
Wolfgang Utschick (Technische Universität München, Germany)

X-Structured Precoder Design for Spatial Multiplexing MIMO Systems
Chun-Tao Lin, Wen-Rong Wu (National Chiao Tung University, Taiwan)

Simultaneous Information and Energy Transfer: A Two-User MISO Interference Channel Case
Chao Shen (Beijing Jiaotong University, China)
Wei-Chiang Li (National Taiwan University, Taiwan)
Tsung-Hui Chang (National Taiwan University of Science and Technology, Taiwan)

How Many RF Chains are Optimal for Large-Scale MIMO Systems When Circuit Power is Considered?
Yiyang Pei, The-Hanh Pham, Ying-Chang Liang (Institute for Infocomm Research, Singapore)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Castle C

WC18: Relay Technologies: Amplify-and-Forward
Chair: Fanggang Wang (Beijing Jiaotong University, China)

Performance Analysis of Dual-Hop Amplify-and-Forward Systems with Multiple Antennas and
Interference at the Relay
Kuan-Chou Lee, Jyun-Wei Pu (National Taiwan University, Taiwan)
Chih-Peng Li (National Sun Yat-sen University, Taiwan)
Hsueh-Jyh Li (National Taiwan University, Taiwan)

Amplify-and-Forward Relaying under I/Q Imbalance
Ahmad Abdulrahman Gomaa, Mohamed Mokhtar, Naofal Al-Dhahir (University of Texas, Dallas, USA)

Capacity Analysis and Power Allocation under Imperfect Channel Estimation for AF-Based Cooperative Relay Systems
Chin-Liang Wang, Jyun-Yu Chen, Hung-Chin Wang (National Tsing Hua University, Taiwan)

Sum Rate of Two-way MIMO AF Relay Networks with Transmit/Receive Zero-Forcing
Gayan Amarasuriya, Chintha Tellambura, Masoud Ardakani (University of Alberta, Canada)

Multi-Way MIMO Amplify-and-Forward Relay Networks With Zero-Forcing
Gayan Amarasuriya, Chintha Tellambura, Masoud Ardakani (University of Alberta, Canada)

A Novel Partial Relay Selection Method for Amplify-and-Forward Relay Systems
Batu Krishna Chalise, Yimin D. Zhang, Moeness G. Amin (Villanova University, USA)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Monorail A

WC19: Network Coding II
Chair: Ke Xiong (Tsinghua University, China)

Resource Allocation for OFDM Multiple-Access Relay Channels with Network Coding
Bin Han, Zhongyuan Zhao, Mugen Peng, Yong Li, Wenbo Wang
(Beijing University of Posts and Telecommunications, China)

Rate Selection for Wireless Networks with Intra- and Inter-session Network Coding
Kaiqian Ou, Yinlong Xu (University of Science and Technology of China, China)
Shengli Fu (University of North Texas, USA)

Relay Selection and Power Allocation in Analogue Network Coding system with Asymmetric Traffic under Imperfect CSI
Yixin Li, Fu-Chun Zheng (University of Reading, UK)

A Distributed Differential Space-Time Coding Scheme with Analog Network Coding in Two-Way Relay Networks
Qiang Huo, Lingyang Song (Peking University, China)
Yonghui Li (University of Sydney, Australia)
Yan Feng, Bingli Jiao (Peking University, China)

Error Probability of Physical-Layer Network Coding in Multiple-Antenna Two-Way Relay Channel
Mengyu Huang, Jinhong Yuan (University of New South Wales, Australia)
Tao Yang (CSIRO, Australia)

Achieving Low Outage Probability with Network Coding in Wireless Multicarrier Multicast Systems
Juan Liu (NC State University, USA)
Wei Chen, Zhigang Cao (Tsinghua University, China)
Ying Jun (Angela) Zhang (Chinese University of Hong Kong, Hong Kong)
Huaiyu Dai (NC State University, USA)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Monorail B

WC20: OFDM I
Chair: Bo Liu (Shanghai Jiaotong University, China)

Uneven Comb Pilots Based Channel Estimation for CDD-OFDM System
Sun Songlin (Beijing University of Posts and Telecommunications, China)

Bo Rong (CRC, Canada)
Rose Qingyang Hu (USU, USA)
Yanhong Ju (Beijing University of Posts and Telecommunications, China)

Orthogonal Frequency Division Multiplexing with Index Modulation
Ertugrul Basar, Umit Aygölü (Istanbul Technical University, Turkey)
Erdal Panayirci (Kadir Has University, Turkey)
H. Vincent Poor (Princeton University, USA)

Low-Complexity PAPR Reduction Algorithm in OFDM Systems by Designing Data Subcarriers
Si Liu, Bo Liu, Xiaoqiang Ma (Shanghai Jiaotong University, China)
Bo Rong (CRC, Canada)
Gui Lin (Shanghai Jiaotong University, China)

Timing Synchronization Reciprocity Error Cancellation in OFDM/TDD Coordinated Multi-point
Transmission System
Zheqi Gu, Ning Wei, Zhongpei Zhang (University of Electronic Science and Technology of China, China)

Power Allocation Based on Fast Water-Filling for Energy Efficient OFDM and MIMO Transmissions
Fengya Luo, Yu Ye, Bin Wu (University of Electronic Science and Technology of China, China)
Pin-Han Ho (University of Waterloo, Canada)
Xiang Ling (University of Electronic Science and Technology of China, China)

Inter-cell Interference Statistics of Uplink OFDM Systems with Soft Frequency Reuse
Yuanping Zhu (Shanghai Institute of Microsystem and Information Technology, Chinese Academy of
Sciences / Shanghai Research Center for Wireless Communications, China)
Jing Xu (Shanghai Institute of Microsystem and Information Technology / SHRCWC, China)
Yang Yang (Shanghai Research Center for Wireless Communications / Shanghai Institute of Microsystem
and Information Technology, China)
Xin Yang (SHRCWC / Key Lab of Wireless Sensor Network & Communication, China)
Zeming Hu (SIMIT, CAS, / Key Lab of Wireless Sensor Network & Communication, China)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Monorail C

WC21: Beamforming
Chair: Emil Björnson (Royal Institute of Technology, Sweden)

Dual-Band Dual-Polarized Antenna Array for Beam Selection MIMO WLAN
Wenchao Zheng, Long Zhang, Qingxia Li (Huazhong University of Science and Technology, China)
Yuan Zhou, Rong Rong (Huawei Technologies Co. Ltd, China)

Optimal Coordinated Beamforming in the Multicell Downlink with Transceiver Impairments
Emil Björnson (KTH Royal Institute of Technology, Sweden); Per Zetterberg, Mats Bengtsson (Royal
Institute of Technology, Sweden)

Performance Evaluation of Coordinated Dual-Cell Transmission Based on Random Unitary Beamforming
with User Scheduling
Jun Zhu, Hong-Chuan Yang, Robert Schober (University of British Columbia, Canada)

Distributed beamforming with software-defined radios: frequency synchronization and digital feedback
Francois Quitin (University of California, Santa Barbara, USA)
Muhammad Mahboob Ur Rahman, Raghuraman Mudumbai (University of Iowa, USA)
Upamanyu Madhow (University of California, Santa Barbara, USA)

Coordinated Beamforming Design in Multicell Multicast Networks
Zhengzheng Xiang, Meixia Tao (Shanghai Jiaotong University, China)
Xiaodong Wang (Columbia University, USA)

Transmit Beamforming for EIRP-limited MIMO Systems based on Golay Sequence
Tae Min Kim (Stanford University, USA)
Alireza Ghaderipoor (Broadcom, USA)
Arogyaswami Paulraj (Stanford University, USA)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Magic Kingdom Ballroom 1

WN11: Power Control and Resource Management
Chair: Kumudu S. Munasinghe (University of Sydney, Australia)

Optimal Transmission Power Control in the Presence of a Smart Jammer
Dejun Yang (Arizona State University, USA)
Jin Zhang (Google, USA)
Xi Fang, Andrea Richa, Guoliang Xue (Arizona State University, USA)

Joint Optimization of Cluster Formation and Power Control for Interference-Limited Machine-to-Machine
Communications
Shih-En Wei, Hung-Yun Hsieh, Hsuan-Jung Su (National Taiwan University, Taiwan)

Joint Power Control and Scheduling for Minimizing Broadcast Delay in Wireless Mesh Networks
Yanan Chang (City University of Hong Kong, Hong Kong)
Qin Liu (Wuhan University, China);
Xiaohua Jia, Xing Tang, Kunxiao Zhou (City University of Hong Kong, Hong Kong)

Joint Handoff and Resource Management for Throughput Fairness in a Wireless Mesh Network
Lei Qin, Yang Yang, Dongmei Zhao (McMaster University, Canada)

Shadow Chasing Enhancement in Resource Allocation for Heterogeneous Networks
Ahmed Elsherif (University of California, Davis / Newport Media Inc., USA)
Zhi Ding, Xin Liu (University of California, Davis, USA)
Jyri Hämäläinen (Aalto University, Finland)

Not Every Bit Counts: A Resource Allocation Problem for Data Gathering in Machine-to-Machine
Communications
Chih-Hua Chang, Hung-Yun Hsieh (National Taiwan University, Taiwan)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: Magic Kingdom Ballroom 2

WN12: Vehicular Networks
Chair: Xiaohua Tian (Shanghai Jiaotong University, China)

Modeling of Intervehicle Communication
Youngmin Jeong (Kyung Hee University, Korea)
Jo Woon Chong (Massachusetts Institute of Technology, USA)
Hyundong Shin (Kyung Hee University, Korea)
Moe Win (Massachusetts Institute of Technology, USA)

The Latency of Gaining alpha-Reliability for Message Dissemination in Vehicle-to-Vehicle Networks
Yujin Li, Wenye Wang, Alexandra Duel-Hallen (North Carolina State University, USA)

Scheduling of Connected Autonomous Vehicles on Highway Lanes
Jiajun Hu, Linghe Kong (Shanghai Jiaotong University, China)
Wei Shu (University of New Mexico, USA)
Min-You Wu (Shanghai Jiaotong University, China)

A Cooperative Message Authentication Protocol in VANETs
Yong Hao, Tingting Han, Yu Cheng (Illinois Institute of Technology, USA)

Enabling Relay-aided IP Communications in 802.11p/WAVE Networks
Sandra Céspedes (University of Waterloo / Icesi University, Canada)
Sherman Shen (University of Waterloo, Canada)

Improving Highway Traffic through Partial Velocity Synchronization
Markus Forster, Raphael Frank (University of Luxembourg, Luxemburg)
Mario Gerla (University of California, Los Angeles, USA)
Thomas Engel (University of Luxemburg, Luxemburg)

Posters

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: South Exhibit Hall Room

AHSNP: II
Chair: Mario De Felice (Sapienza University of Roma / Lionbridge Inc., Italy)

A Two-layer Cache Replication Scheme for Dense Mobile Ad hoc Networks
Kassem Fawaz, Hassan A. Artail (American University of Beirut, Lebanon)

Discovering Influential Users in Micro-blog Marketing with Influence Maximization Mechanism
Fei Hao (Korea Advanced Institute of Science and Technology, Korea)
Min Chen (Huazhong University of Science and Technology, China)
Chunsheng Zhu (St. Francis Xavier University, Canada)
Mohsen Guizani (QU, USA)

Leveraging Multiview Video Coding in Clustered Multimedia Sensor networks
Stefania Colonnese, Francesca Cuomo (University of Rome Sapienza, Italy)
Tommaso Melodia (State University of New York, Buffalo, USA)

RaFFD: Resource-aware Fast Foreground Detection in Embedded Smart Cameras
Qiang Wang, Pu Zhou, Jing Wu, Chengnian Long (Shanghai Jiaotong University, China)

EasiPLED: Discriminating the Causes of Packet Losses and Errors in Indoor WSNs
Tingpei Huang, Haiming Chen, Zhaoliang Zhang, Li Cui (Chinese Academy of Sciences, China)

An Analysis of Intrinsic Properties of Stochastic Node Placement in Sensor Networks
Mustapha Reda Senouci (EMP, Algeria)
Abdelhamid Mellouk (University Paris-Est Creteil Val de Marne, France)
Amar Aissani (USTHB, Algeria)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: South Exhibit Hall

CISSP: Miscellaneous Aspects in Communication Security
The Measure of Security in Quantum Cryptography

Marcin Niemiec, Andrzej R. Pach (AGH University of Science and Technology, Poland)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: South Exhibit Hall Room

CogRN12P
Chair: Alagan Anpalagan (Ryerson University, Canada)

A Minimum-Delay Cross-Layer Transmission Policy for Cognitive Multi-Access Networks with Imperfect Sensing
Ghada Saleh, Amr El-Keyi (Nile University, Egypt)
Mohammed Nafie (Nile University / Cairo University, Egypt)

Optimal D2D User Allocation over Multi-Bands under Heterogeneous Networks
Ziyang Liu, Tao Peng, Hao Chen, Wenbo Wang
(Beijing University of Posts and Telecommunications, China)

Energy-based Cooperative Spectrum Sensing for Emergency Communications over Fading Channels in Cognitive Radio Public Safety Networks
Chihkai Chen, Ralph Hudson, Kung Yao (UCLA, USA)

Asymptotically Optimal Likelihood Detector for Cyclostationary Signature Induced by Cyclic Delay Diversity
Yonglei Jiang (Shanghai Institute of Microsystem and Information Technology
/ Shanghai Research Center for Wireless Communications, China)
Huaxia Chen, Honglin Hu (Shanghai Research Center for Wireless Communications, China)

QoS-Aware User Cohabitation Coordinator in Cognitive Radio Networks
Berk Canberk (Istanbul Technical University, Turkey)
Ian F. Akyildiz (Georgia Institute of Technology, USA)
Sema Oktug (Istanbul Technical University, Turkey)

Optimal Number of Utilized Channels for Throughput Maximization in Cognitive Radio Networks
Yuh-Ren Tsai (National Tsing Hua University, Taiwan)
Yung-Cheng Chao (Industrial Technology Research Institute, Taiwan)

Joint Strategic Spectrum Sensing and Opportunistic Access for Cognitive Radio Networks
Essaid Sabir (University of Hassan II / ENSEM, Morocco)
Majed Haddad (INRIA, France)
Hamidou Tembine (Supelec, France)

Test of Independence for Cooperative Spectrum Sensing with Uncalibrated Receivers
Andrea Mariani, Andrea Giorgetti, Marco Chiani (University of Bologna, Italy)

POMDP-based Cross-layer Power Adaptation Techniques in Cognitive Radio Networks
Ashok K Karmokar, Sivasothy Senthuran, Alagan Anpalagan (Ryerson University, Canada)

Wednesday, 5 December 2012 ● 16:00 – 18:00
Room: South Exhibit Hall Room

CT10P

Strategies for Distributed Sensor Selection Using Convex Optimization
Fabian Altenbach, Steven Corroy (RWTH Aachen University, Germany)
Georg Böcherer (Technische Universität München, Germany)

Rudolf Mathar (RWTH Aachen University, Germany)

Semidefinite Relaxation and Randomization for Dynamic Cell Association in Heterogeneous Networks
Steven Corroy, Rudolf Mathar (RWTH Aachen University, Germany)

Capacity of Scale Free Wireless Networks
Bita Azimdoost, Hamid Sadjadpour (University of California, Santa Cruz, USA)

On the Capacity Region of the Gaussian MAC with Batteryless Energy Harvesting Transmitters
Omur Ozel, Sennur Ulukus (University of Maryland, USA)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room A

AHSN07: Network Connectivity and Relay Selection
Chair: Preetha Thulasiraman (Naval Postgraduate School, USA)

On the Quality of Wireless Network Connectivity
Soura Dasgupta (University of Iowa, USA)
Guoqiang Mao (University of Sydney, Australia)

Accurate Subgraph Probabilities in a Random Geometric Graph and Application to Cooperative Multihop
Ad Hoc Networks
Thomas Bourgeois (Waseda University / Telecom Bretagne, Japan)
Shigeru Shimamoto (Waseda University, Japan)

Optimized Relay Node Placement for Establishing Connectivity in Sensor Networks
Fatih Senel (Antalya International University, Turkey)
Mohamed Younis (University of Maryland Baltimore County, USA)

An Effective and Scalable Connectivity Restoration Heuristic for Mobile Sensor/Actor Networks
Izzet F. Senturk, Kemal Akkaya (Southern Illinois University Carbondale, USA)
Fatih Senel (Antalya International University, Turkey)

Energy Saving and Network Connectivity Tradeoff in Opportunistic Mobile Networks
Huan Zhou, Hongyang Zhao, Jiming Chen (Zhejiang University, China)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room B

AHSN16: MAC and Channel Modeling
Chair: Yves Lostanlen (SIRADEL / University of Toronto, Canada)

Sensor-MAC with Dynamic Duty Cycle in Wireless Sensor Networks
Felipe Cunha (Federal University of Minas Gerais, Brazil)
Raquel A. F. Mini (PUC Minas, Brazil)
Antonio A.F. Loureiro (Federal University of Minas Gerais, Brazil)

A Cluster-based Energy Efficient MAC Protocol for Multi-hop Cognitive Radio Sensor Networks
Yanchao Xu, Chengyu Wu, Chen He, Lingge Jiang (Shanghai Jiaotong University, China)

Terahertz Channel Modeling of Underground Sensor Networks in Oil Reservoirs
Mustafa Alper Akkaş (Ege University, Turkey)
Ian F. Akyildiz (Georgia Institute of Technology, USA)

Radosveta Sokullu (Ege University, Turkey)

Measurement-Based Analysis of Cooperative Relaying in an Industrial Wireless Sensor Network
Torsten Andre, Guenther Brandner (University of Klagenfurt, Austria)
Nikolaj Marchenko (University of Klagenfurt / Lakeside Labs, Austria)
Christian Bettstetter (University of Klagenfurt, Austria)

Asynchronous MAC Protocol with QoS Awareness in Wireless Sensor Networks
Kien Nguyen (Graduate University for Advanced Studies, Japan)
Yusheng Ji (National Institute of Informatics, Japan)

On-Demand Radio Wave Sensor for Wireless Sensor Networks: Towards a Zero Idle Listening and Zero Sleep Delay MAC Protocol
Sang Hoon Lee, Yong Soo Bae, Lynn Choi (Korea University, Korea)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room C

CISS07: Wireless Network Security I
Chair: Hossam Afifi (Institut Telecom / Paris South, France)

Probabilistic Key Distribution in Vehicular Networks with Infrastructure Support
Joao Almeida (Faculdade de Engenharia da Universidade do Porto, Portugal)
Saurabh Shintre (Universidade do Porto & Carnegie Mellon University, India)
Mate Boban (Carnegie Mellon University & University of Porto, USA)
Joao Barros (University of Porto, Portugal)

Distributed Data Survivability Schemes in Mobile Unattended Wireless Sensor Networks
Sasi Kiran Vepanjeri Lokanadha Reddy (University Of Ottawa, Canada)
Sushmita Ruj (IIT-Indore, India)
Amiya Nayak (SITE, University of Ottawa, Canada)

TIS: A Threshold Incentive Scheme for Secure and Reliable Data Forwarding in Vehicular Delay Tolerant Networks
Jun Zhou, Zhenfu Cao (Shanghai Jiaotong University, China)

A Security Metric for VANET Content Delivery
Ikechukwu Azogu, Michael Ferreira, Hong Liu (University of Massachusetts, Dartmouth, USA)

Threat Mitigation in Tactical-Level Disruption Tolerant Networks
Weihan Goh, Chai Kiat Yeo (Nanyang Technological University, Singapore)

A Link-layer Authentication and Key Agreement Scheme for Mobile Public Hotspots in NEMO based VANET
Sanaa Taha (University of Waterloo / Cairo University, Canada)
Sherman Shen (University of Waterloo, Canada)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room D

CogRN07: Multiuser Access
Chair: Walid Saad (University of Miami, USA)

Intelligent CSMA-based Opportunistic Spectrum Access: Competition and Cooperation
Mahsa Derakhshani, Tho Le-Ngoc (McGill University, Canada)

REM Based Approach for Hidden Node Detection and Avoidance in Cognitive Radio Networks
Tim D Farnham (Toshiba Research Europe Ltd., UK)

Optimal Queue Scheduling for Hybrid Cognitive Radio Maintaining Maximum Average Service Rate Under Delay Constraints
Jie Hu, Lie-Liang Yang, Lajos Hanzo (University of Southampton, UK

Learning and Decision Making with Negative Externality for Opportunistic Spectrum Access
Biling Zhang (Beijing University of Posts and Telecommunications, China)
Yan Chen (University of Maryland, College Park, USA)
Chih-Yu Wang (National Taiwan University, Taiwan)
K. J. Ray Liu (University of Maryland, USA)

Proactive Channel Gain Estimation for Coexistence between Cognitive and Primary Users
Lin Zhang (University of Electronic Science and Technology of China, China)
Guodong Zhao (Hong Kong University of Science and Technology, Hong Kong)
Gang Wu (University of Electronic Science and Technology of China, China)
Zhi Chen (University of Electronic Science and Technology of China
/ University of California, Riverside, China)

Cooperative Cognitive Relaying with Ordered Cognitive Multiple Access
Ahmed El Shafie (Nile University, Egypt)
Ahmed Sultan (Alexandria University, Egypt)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Magic Kingdom Ballroom 4

CQ07: Resource Allocation
Chair: Jesus Alonso-Zarate (Centre Tecnologic de Telecomunicacions de Catalunya, Spain)

Effective Capacity Region in a Wireless Multiuser OFDMA Network
Xiao Han, Huifang Chen, Lei Xie, Kuang Wang (Zhejiang University, China)

A Bankruptcy Game Approach for Resource Allocation in Cooperative Femtocell Networks
Sahar Hoteit (Université Paris 6, France)
Stefano Secci, Rami Langar, Guy Pujolle (University Pierre et Marie Curie - Paris 6, France)
Raouf Boutaba (University of Waterloo, Canada)

Sensor and Channel Selection for Cooperative Sensing in Multichannel Cognitive Radio Systems
Yan Xin, Kyungtae Kim, Sampath Rangarajan (NEC Labs America, USA)

Relay Power Allocation in Auction-based Game Approach
Dan Wu, Cai Yueming (PLA University of Science and Technology China)
Liang Zhou (Nanjing University of Posts and Telecommunications, China)
Joel J. P. C. Rodrigues (University of Beira Interior, Portugal)

Coalition Graph Game for Joint Relay Selection and Resource Allocation in Cooperative Cognitive Radio Networks
Lanjie Zhai, Hong Ji, Xi Li, Yiwen Tang (Beijing University of Posts and Telecommunications, China)

Multihop Relay-Aided Multicast Scheduling for Cellular Wireless Networks
Izhak Rubin, Hung-Bin Chang (University of California, Los Angeles, USA)
Reuven Cohen (Technion, Israel)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room F

CSSM07: Multimedia Application and Service
Chair: Yonggang Wen (Nanyang Technological University, Singapore)

Popularity-Based Caching for IPTV Services
Sajal K. Das, Mayank Raj (University of Texas, Arlington, USA)
Zohar Naor (University of Haifa, Israel)

Content Routing and Lookup Schemes using Global Bloom Filter for Content-Delivery-as-a-Service
Yichao Jin, Yonggang Wen (Nanyang Technological University, Singapore)

LP-based Optimization of Storage and Retrieval for Distributed Video-on-Demand
Zhuolin Fannie Xu, Gary Chan (Hong Kong University of Science and Technology, Hong Kong)

Design of Small Rate, Close to Ideal, GLDPC-Staircase AL-FEC Codes for the Erasure Channel
Ferdaouss Mattoussi (INRIA, France)
Vincent Roca (INRIA Rhône -Alpes, France)
Bessem Sayadi (Alcatel-Lucent Bell-Labs, France)

Multiple Description Coding of Free Viewpoint Video for Multi-Path Network Streaming
Zhi Liu (National Institute of Informatics, Japan);
Gene Cheung (National Institute of Informatics, Japan)
Jacob Chakareski (EPFL, Switzerland)
Yusheng Ji (National Institute of Informatics, Japan)

A Novel Server Selection Approach for Streaming Application on Mobile Internet
Ran Liu, Desheng Wang, Xiaoqun Yuan (Huazhong University of Science and Technology, China)
Qilin Fan (Tsinghua University, China)
Li Yu, Guangxi Zhu (Huazhong University of Science and Technology, China)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room G

CT06: Cooperative Communications I
Chair: Norman C. Beaulieu (University of Alberta, Canada)

Coordinated Multi-Point Transmission with Quantized and Delayed Feedback
Daniel Jaramillo-Ramirez (France Telecom / Supélec, France)
Marios Kountouris (Supélec, France)
Eric Hardouin (France Telecom, France)

Device-to-Device Collaboration through Distributed Storage
Negin Golrezaei, Alex Dimakis, Andreas Molisch (University of Southern California, USA)

Spatio-Temporal Information Coupling in Cooperative Network Navigation
Santiago Mazuelas, Yuan Shen, Moe Win (Massachusetts Institute of Technology, USA)

Coordinated Relay Beamforming for Amplify-and-Forward Two-Hop Interference Networks
Yuanming Shi, Jun Zhang, Khaled Letaief
(Hong Kong University of Science and Technology, Hong Kong)

Exchanging Third-Party Information with Minimum Transmission Cost
Xiumin Wang (Singapore University of Technology and Design, Singapore)

Wentu Song (Peking University, China)
Chau Yuen (Singapore University of Technology and Design, Singapore)
Tiffany Jing Li (Lehigh University, USA)

Degrees of Freedom of MIMO Two-Way X Relay Channel
Zhengzheng Xiang, Jianhua Mo, Meixia Tao (Shanghai Jiaotong University, China)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room H

NGNI07: Traffic Engineering and Congestion Control
Chair: Stenio Fernandes (Federal University of Pernambuco, Brazil)

Classification of SIP Messages by a Syntax Filter and SVMs
Raihana Ferdous, Renato Lo Cigno, Alessandro Zorat (University of Trento, Italy)

Proposal of New Steiner Tree Algorithm Applied to P2MP Traffic Engineering
Hiroshi Matsuura (NTT, Japan)

Progressive Caching in CCN
Jason Min Wang, Brahim Bensaou (Hong Kong University of Science and Technology, Hong Kong)

Improving Service Availability in ERP Based Mesh Networks
Mohammad Nurujjaman, Samir Sebbah, Chadi Assi (Concordia University, Canada)

A Hierarchical and Multi-criteria Knowledge Dissemination in Autonomic Networks
Sami Souihi, Said Hoceini, Abdelhamid Mellouk, Nadjib Aitsaadi
(University Paris-Est Creteil Val de Marne, France)

Cooperation Incentives Based Load Balancing in UCN: A Probabilistic Approach
Mursel Yildiz , Manzoor Ahmed Khan, Fikret Sivrikaya , Sahin Albayrak
(Technische Universität Berlin, Germany)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room I

ONS04: Grooming, RWA, Dimensioning and Survivability
Chairs: George N. Rouskas (North Carolina State University, USA)
Jing Wu (Communications Research Centre Canada, Canada)

A Fast Path-Based ILP Formulation for Offline RWA in Mesh Optical Networks
Zeyu Liu, George N. Rouskas (North Carolina State University, USA)

Dynamic Grooming and RWA in Translucent Optical Networks Using a Time-Slotted ILP
Xu Wang, Maite Brandt-Pearce (University of Virginia, USA)
Suresh Subramaniam (George Washington University, USA)

Dimensioning Optical WDM Backbone Networks with Mixed Line Rates
Chaitanya S. K. Vadrevu, Avishek Nag, Charles Martel, Biswanath Mukherjee
(University of California Davis, USA)

Dynamic Advance Reservation Multicast Overlay for Slotted Optical WDM Networks
Tim Entel, Arush G. Gadkar (University of Massachusetts, Dartmouth, USA)
Vinod M. Vokkarane (University of Massachusetts Dartmouth
/ Massachusetts Institute of Technology, USA)

Survivable Inter-Domain Routing Based on Topology Aggregation with Disjointness Information in Multi-Domain Optical Networks
Chengyi Gao (University of Texas, Dallas, USA)
Hakki Candan Cankaya (Fujitsu Network Communications / Southern Methodist University, USA)
Jason P. Jue (University of Texas, Dallas, USA)

A Distributed p-Cycle Protection Scheme in Multi-Domain Optical Networks
Brigitte Jaumard (Concordia University, Canada)
Kien Do Trung (Universite de Montreal, Canada)
Michel Toulouse (Oklahoma State University, USA)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Castle A

SAC-ASN3: Energy Efficiency in Access Networks
Chair: Jochen Maes (Alcatel-Lucent Bell Labs, Belgium)

Energy-Efficient Uplink Multi-User MIMO with Dynamic Antenna Management
Guowang Miao (Royal Institute of Technology, USA)

Dynamic and Static Base Station Management Schemes for Cellular Networks
Stefanos Kokkinogenis (University of Western Macedonia, Greece)
George Koutitas (University of Thessaly, Greece)

Achievable Energy Efficiency in Cooperative Transmission System with Frequency-Selective Power Allocation
Chen Xin, Xiaodong Xu (Beijing University of Posts and Telecommunications, China)
Hongjia Li (Chinese Academy of Sciences / Beijing University of Posts and Telecommunications, China)
Xiaofeng Tao (Beijing University of Posts and Telecommunications, China)

QoS-aware Sleep Mode Controller in "Energy Efficient Ethernet"
Patrizia Testa, Angelo Germoni (CoRiTel, Italy)
Marco Listanti (University of Rome "La Sapienza", Italy)

An Intelligent Power Save Mode Mechanism for IEEE 802.11 WLAN
Haleh Tabrizi (Stanford, USA)
Golnaz Farhadi (Fujitsu Laboratories of America, USA)
John Cioffi (Stanford University, USA)

Scalability and Power Consumption of Static Optical Core Networks
Slavisa Aleksic (Vienna University of Technology, Austria)
Ward Van Heddeghem (Ghent University, Belgium)
Mario Pickavet (Ghent University, Belgium)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Castle B

SAC-GNCS7: Green Cognitive Radio and Energy Harvesting
Chair: Jun Zhang (Hong Kong University of Science and Technology, Hong Kong)

Training Optimization for Energy Harvesting Communication Systems
Yaming Luo, Jun Zhang, Khaled Letaief (Hong Kong University of Science and Technology, Hong Kong)

Cross-layer Dynamic Rate Adaptations for Green Cognitive Radio Networks

Ashok K Karmokar, Alagan Anpalagan (Ryerson University, Canada)

Low Complexity Energy Efficient Power Allocation for Green Cognitive Radio with Rate Constraints
Kandasamy Illanko, Muhammad Naeem, Alagan Anpalagan, Dimitri Androutsos
(Ryerson University, Canada)

On The Reduction of Power Loss Caused by Imperfect Spectrum Sensing in OFDMA-Based Cognitive Radio Access
Saud Althunibat, Fabrizio Granelli (University of Trento, Italy)

Transmit Power Control with ARQ in Energy Harvesting Sensors: A Decision-Theoretic Approach
Anup Aprem, Chandra R. Murthy, Neelesh B. Mehta (Indian Institute of Science, India)

Modeling the Residual Energy and Lifetime of Energy Harvesting Sensor Nodes
M. Yousof Naderi, Stefano Basagni, Kaushik Chowdhury (Northeastern University, USA)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Monorail A

SAC-SSC02: Satellite & Space Communications
Chairs: Igor Bisio (University of Genoa, Italy)
Hiromitsu Wakana (National Institute of Information & Communications Technology, Japan)

Constellation Design for Transmission over Nonlinear Satellite Channels
Farbod Kayhan, Guido Montorsi (Politecnico di Torino, Italy)

Autologous Spectrum Regeneration Optimization on Sub-spectrum Suppressed Transmission for Single-Carrier Satellite Modem
Jun Mashino, Jun-ichi Abe, Takatoshi Sugiyama (NTT, Japan)

Multi-Carrier-Code-Shift-Keying Modulation
Clément Dudal (University of Toulouse IRIT, TéSA, Thales Alenia Space, France)
Nathalie Thomas (University of Toulouse, France)
Mathieu Dervin (Thales Alenia Space, France)
Marie-Laure Boucheret (University of Toulouse IRIT Enseeiht, France)
Marco Lops (University of Cassino, Italy)

Spectrum Sensing in Dual Polarized Fading Channels for Cognitive SatComs
Shree Krishna Sharma, Symeon Chatzinotas (University of Luxembourg, Luxemburg)
Björn Ottersten (Royal Institute of Technology, Sweden)

Multi-Gateway Interference Cancellation techniques for the Return Link of Multi-Beam Broadband Satellite Systems
Francesco Lombardo, Alessandro Vanelli-Coralli, Enzo Alberto Candreva, Giovanni Emanuele Corazza
(University of Bologna, Italy)

Operator Calculus Approach to Minimal Paths: Precomputed routing in a Store and Forward Satellite Constellation
Hugo Cruz-Sanchez (INRIA-LORIA, France)
George Stacey Staples (Southern Illinois University, Edwardsville, USA)
Rene Schott, YeQiong Song (LORIA, Nancy University, France)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Monorail B

SPC09: Wireless Systems and Networks
Chair: Heung-Gyoon Ryu (Chungbuk National University, Korea)

Enhancing Spectrum Hole Utilization Through Adaptive Sensing in Cognitive Radio Systems
Dusadee Treeumnuk, Dimitrie Popescu (Old Dominion University, USA)

Outage-Constrained Power Control in Spectrum Sharing Systems with Partial Primary CSI
Xitao Gong, Adrian Ispas, Gerd H. Ascheid (RWTH Aachen University, Germany)

Reduced Dimension Policy Iteration for Wireless Network Control via Multiscale Analysis
Marco Levorato (Stanford University / University of Southern California, USA)
Sunil K. Narang, Urbashi Mitra, Antonio Ortega (University of Southern California, USA)

Decentralized Largest Eigenvalue Test for Multi-Sensor Signal Detection
Federico Penna, Slawomir Stańczak (Fraunhofer Heinrich Hertz Institute, Germany)

New Results on Distributed Detection with Dependent Observations
Ge Xu (Syracuse University, USA)
Hao Chen (Boise State University, USA)
Biao Chen (Syracuse University, USA)

Theoretical Performance Bounds for Reduced-order Linear and Nonlinear Distributed Estimation
Arash Mohammadi, Amir Asif (York University, Canada)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Monorail C

WC22: LTE
Chair: Aliye Ozge Kaya (Bell Labs, Alcatel-Lucent, USA)

Exploiting frequency correlation in LTE to reduce HARQ memory
Rodolfo Torrea-Duran, Min Li, Claude Desset (IMEC, Belgium)
Sofie Pollin (IMEC / UC Berkeley, USA)
Liesbet Van der Perre (IMEC, Belgium)

Interference Mitigation by Dynamic Self-Power Control in Femtocell Scenarios in LTE Networks
Mauricio Iturralde, Tara Ali Yahiya (University Paris Sud 11, France)
Anne Wei (Conservation National des Arts et Metiers, France)
André-Luc Beylot (IRIT Toulouse, France)

Proportional Fair Scheduling Algorithm for SC-FDMA in LTE Uplink
Jeongchan Kim (Korea Advanced Institute of Science and Technology, Korea)
Donggeun Kim (Pantech, Korea)
Youngnam Han (Korea Advanced Institute of Science and Technology, Korea)

Compensating for CQI Aging By Channel Prediction: The LTE Downlink
Rudi Abi Akl (Fraunhofer Heinrich Hertz Institute, Germany)
Stefan Valentin (Bell Labs & Alcatel-Lucent Deutschland AG, Germany)
Gerhard Wunder, Slawomir Stańczak (Fraunhofer Heinrich Hertz Institute, Germany)

Inter-Cell Interference Coordination for LTE Systems
Daewon Lee, Geoffrey Li (Georgia Tech, USA)
Suwen Tang (Huawei Shanghai Research Institute, China)

Cross-Layer Rate Adaptation for Video Communications over LTE Networks

Song Ci (University of Nebraska-Lincoln, USA)
Dalei Wu (Massachusetts Institute of Technology, USA)
Haiyan Luo (Cisco Systems / University of Nebraska-Lincoln, USA)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Magic Kingdom Ballroom 1

WC23: Wireless Security
Chair: Yichao Huang (University of California, San Diego, USA)

Secrecy Diversity in MISOME Wiretap Channels
Thang Van Nguyen (Kyung Hee University, Korea)
Tony Q. S. Quek (Singapore University of Technology and Design
/ Institute for Infocomm Research, Singapore)
Hyundong Shin, Yun Hee Kim (Kyung Hee University, Korea)

Hybrid Cooperative Relaying and Jamming for Secure Two-Way Relay Networks
Hui-Ming Wang, Miao Luo, Qinye Yin (Xi'an Jiaotong University, China)

Deterministic Bisection Search Algorithm for Distributed Sensor/Relay Networks
Juwendo Denis, Chia-Shiang Tseng, Cheng-Wei Lee, Chia-Yu Tsai, Che Lin
(National Tsing Hua University, USA)

A Robust Malicious User Detection Scheme in Cooperative Spectrum Sensing
Changlong Chen, Min Song (University of Toledo, USA)
ChunSheng Xin (Norfolk State University, USA)
Mansoor Alam (USA)

Opportunistic Jammer Selection for Secure Degrees of Freedom
Jung Hoon Lee, Seong Ho Chae, Wan Choi (KAIST, Korea)

Physical Layer Security in Wireless Networks with Passive and Active Eavesdroppers
Arsenia Chorti (Princeton University / ICS FORTH, USA)
Samir M. Perlaza (Princeton University, USA)
Zhu Han (University of Houston, USA)
H. Vincent Poor (Princeton University, USA)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Magic Kingdom Ballroom 2

WC24: OFDM II
Chair: Linglong Dai (Tsinghua University, China)

Joint Subcarrier-pairing and Resource Allocation for Two-way Multi-relay OFDM Networks
Ke Xiong, Pingyi Fan (Tsinghua University, China)
Khaled Ben Letaief (Hong Kong University of Science and Technology, Hong Kong)
Su Yi, Ming Lei (NEC Laboratories China, China)

Time Domain Synchronous OFDM Based on Compressive Sensing: A New Perspective
Changyong Pan, Linglong Dai (Tsinghua University, China)

Coordinated Multi-Point Transmission of MIMO-OFDM System with Per-Antenna Power Constraints
Chih-yu Hsu, Brian Krongold (University of Melbourne, Australia)

Channel Adaptive Power Allocation and Pilot Optimization for OFDM systems

Mahdi Karami, Norman C. Beaulieu (University of Alberta, Canada)

Tone Injection for PAPR Reduction Using Parallel Tabu Search Algorithm in OFDM Systems
Jun Hou (Xidian University / State Key Laboratory of Integrated Service Networks, Canada)
Chintha Tellambura (University of Alberta, Canada)
Jianhua Ge (Xidian University, China)

Buffer-Aided BICM-OFDM Relaying
Toufiqul Islam, Aissa Ikhlef, Robert Schober (University of British Columbia, Canada)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: Castle C

WN13: Cognitive Networking
Chair: Iyad Dayoub (University Lille Nord de France / Concordia University Montreal, France)

Exploring Frequency Diversity with Interference Alignment in Cognitive Radio Networks
Youwen Yi (Huawei Technologies, China)
Jin Zhang, Qian Zhang (Hong Kong University of Science and Technology, Hong Kong)
Tao Jiang (Huazhong University of Science and Technology, China)

Efficient Spectrum Utilization with Selfish Secondary Users in Cognitive Radio Networks
Gaofei Sun, Youyun Xu, Xinxin Feng, Xinbing Wang (Shanghai Jiaotong University, China)
Yu Cheng (Illinois Institute of Technology, USA)

Network Coding-aware Channel Allocation and Routing in Cognitive Radio Networks
Zhihui Shu (University of Nebraska-Lincoln, USA)
Jiazhen Zhou (University of Wisconsin, Whitewater, USA)
Yaoqing (Lamar) Yang, Hamid Sharif, Yi Qian (University of Nebraska- Lincoln, USA)

Constructing Backbone of a Multi-hop Cognitive Radio Network with Channel Bonding
Feng Ye (University of Nebraska-Lincoln, USA)
Jiazhen Zhou (University of Wisconsin, Whitewater, USA)
Yaoqing (Lamar) Yang, Hamid Sharif, Yi Qian (University of Nebraska-Lincoln, USA)

Service Response time of Elastic Data Traffic in Cognitive Radio Networks with SPT Service Discipline
Subodha Gunawardena, Weihua Zhuang (University of Waterloo, Canada)

Singleton Spectrum Mobility Games with Incomplete Information
Qingkai Liang, Xinbing Wang (Shanghai Jiaotong University, China)
Zhiyong Feng (Beijing University of Posts and Telecommunications, China)

Thursday, 6 December 2012 ● 10:00 – 12:00
Room: North Exhibit Hall Room J

WN14: Network Coding
Chair: Hao Liang (University of Waterloo, Canada)

HopCaster: A Network Coding-Based Hop-by-Hop Reliable Multicast Protocol
Rami Halloush (Michigan State University, USA)
Hang Liu, Lijun Dong (InterDigital, USA)
Mingquan Wu (Huawei Technologies, USA)
Hayder Radha (Michigan State University, USA)

Adaptive Scheduling for Multicasting Hard Deadline Constrained Prioritized Data via Network Coding

Tuan T. Tran, Hongxiang Li (University of Louisville, USA)
Weiyao Lin (Shanghai Jiaotong University, China)
Lingjia Liu (University of Kansas, USA)
Samee U. Khan (North Dakota State University, USA)

Greedy Strategy for Network Coding Based Reliable Broadcast in Wireless Mesh Networks
Xiaobin Tan (University of Science and Technology of China, China)
Hao Yue, Yuguang Fang (University of Florida, USA)
Wenfei Cheng (University of Science and Technology of China, China)

Clustering Based Space-Time Network Coding
Wei Guan, K. J. Ray Liu (University of Maryland, USA)

Efficient Scheduling Scheme for Multi-Way Relay Systems with Physical-Layer Network-Coding
Kun Yan (Gulin University of Electrical Technology, China)
Hsiao-Chun Wu (Louisiana State University, USA)
Xiangli Zhang, Tiansong Li, Haiyan Zhou (Gulin University of Electronic Technology, China)

Mitigating the Impact of Asynchronous ACKs on the Performance of Opportunistic Network Coding
Qinglong Liu, Gang Feng (University of Electronic Science and Technology of China, China)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room A

AHSN08: Power Control and Neighbor Discovery
Chair: Preetha Thulasiraman (Naval Postgraduate School, USA)

QoS-Aware Autonomous Distributed Power Control in Co-Channel Femtocell Networks
Nessrine Chakchouk, Bechir Hamdaoui (Oregon State University, USA)

Experimental Study on Adaptive Power Control Based Routing in Multi-hop Wireless Body Area Networks
Liang Liang (University of Electronic Science and Technology of China, China)
Yu Ge (Institute for Infocomm Research, Singapore)
Gang Feng (University of Electronic Science and Technology of China, China)
Wei Ni, Aung Aung Phyo Wai (Insitute for Infocomm Research, Singapore)

Energy Analysis of Distributed Neighbour Discovery Algorithms Based on Frame Slotted-ALOHA for Cooperative Networks
Francisco Vázquez, Jesus Alonso-Zarate
(Centre Tecnologic de Telecomunicacions de Catalunya, Spain)
Luis Alonso (Universidad Politecnica de Catalunya, Spain)

PHED: Pre-Handshaking Neighbor Discovery Protocols in Full Duplex Wireless Ad Hoc Networks
Guobao Sun, Fan Wu, Xiaofeng Gao, Guihai Chen (Shanghai Jiaotong University, China)

Energy-Efficient Probabilistic Full Coverage in Wireless Sensor Networks
Qianqian Yang (Zhejiang University, China)
Shibo He (Arizona State University, USA)
Junkun Li, Jiming Chen, Youxian Sun (Zhejiang University, China)

Analytical Transmit Power Adjustment in Cooperative Vehicle Safety Systems
Jihene Rezgui, Soumaya Cherkaoui (Université de Sherbrooke, Canada)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room B

AHSN17: Security and Monitoring
Chair: Kemal Akkaya (Southern Illinois University Carbondale, USA)

An Adaptive Deviation-tolerant Secure Scheme for Distributed Cooperative Spectrum Sensing
Sheng Liu, Haojin Zhu, Shuai Li (Shanghai Jiaotong University, China)
Xu Li (INRIA Lille - Nord Europe, France)
Cailian Chen, Xinping Guan (Shanghai Jiaotong University, China)

Distributed TDMA for Privacy Sensitive Anonymous Networks
Debasmit Banerjee, Mahmoud Taghizadeh, Subir Biswas (Michigan State University, USA)

SIMAGE: Secure and Link-Quality Cognizant Image Distribution for Wireless Sensor Networks
Ramalingam K C, Venkatachalam Subramanian, Selcuk Uluagac, Raheem Beyah
(Georgia Institute of Technology, USA)

A High Quality Event Capture Scheme for WSN-based Structural Health Monitoring
Chao Yang (Nanjing University, China)
Jiannong Cao, Xuefeng Liu (THong Kong Polytechnic University, Hong Kong)
Li-jun Chen, Daoxu Chen (Nanjing University, China)

Cooperative Data Reduction in Wireless Sensor Network
Qingquan Zhang (University of Minnesota, USA)
Ting Zhu (State University of New York, Binghamton, USA)
Ping Yi (Shanghai Jiaotong University, China)
Yu Gu (Singapore University of Technology, Singapore)

A Distributed Bayesian Approach to Fault Detection in Sensor Networks
Giuseppe Lo Re, Fabrizio Milazzo, Marco Ortolani (University of Palermo, Italy)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room C

CISS08: Wireless Network Security II
Chair: Michele Nogueira (Federal University of Parana, Brazil)

Towards a Trustworthy PF Scheduler for Cellular Data Networks
Konstantinos Pelechrinis, Prashant Krishnamurthy (University of Pittsburgh, USA)
Christos Gkantsidis (Microsoft Research, UK)

A Group-based Authentication and Key Agreement for MTC in LTE Networks
Jin Cao (Xidian University, China)
Maode Ma (Nanyang Technological University, Singapore)
Hui Li (Xidian University, China)

Towards a Secure Fair MAC in Wireless Ad Hoc Networks Using Trusted Computing Technology
Andrew Cheng, Qiao Li, Rohit Negi (Carnegie Mellon University, USA)

A Lightweight Roaming Authentication Protocol for Anonymous Wireless Communication
Xiaowei Li (Xidian University, China)
Yuqing Zhang (Graduate University of Chinese Academy of Sciences, China)
Xuefeng Liu, Jin Cao, Qianqian Zhao (Xidian University, China)

An Efficient WLAN Initial Access Authentication Protocol
Xinghua Li, Jianfeng Ma (Xidian University, China)

Yulong Shen (Xidian University / Wayne State University, USA)

ISP Offload Infrastructure to minimize cost and time deployment
Daniel Migault, Daniel Palomares, Emmanuel Herbert, Wei You, Gabriel Ganne (Orange, USA)
Ghada Arfaoui (Institut Telecom, France)
Maryline Laurent (Institut Mines-Telecom, Telecom SudParis, France)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room D

CogRN08: Spectrum Access
Chair: Berk Canberk (Istanbul Technical University, Turkey)

A Renewal-Theoretical Framework for Dynamic Spectrum Access with Unknown Primary Behavior
Chunxiao Jiang (Tsinghua University, China)
Yan Chen, K. J. Ray Liu (University of Maryland, USA)

Impact of Measurement Configurations on the Accuracy of Propagation Model Estimation with
Applications to Dynamic Spectrum Access
Jad Nasreddine Janne Riihijärvi, Petri Mähönen (RWTH Aachen University, Germany)

Fairness and Network capacity Trade-off in P2P IEEE 802.22 networks
Huaizhou Shi, Venkatesha Prasad, Vijay Sathyanarayana Rao, Ignas G.M.M. Niemegeers
(Delft University of Technology, Netherlands)

Prediction of Exponentially Distributed Primary User Traffic for Dynamic Spectrum Access
Chun-Hao Liu, Wesam R. Gabran, Danijela Cabric (University of California Los Angeles, USA)

Optimal Decentralized Sensing-Orders in Multi-User Cognitive Radio Networks
Rakesh Misra (Stanford University, USA)
Arun Pachai Kannu (IIT Madras, India)

Distributed Sensing of Spectrum Occupancy and Interference in Outdoor 2.4 GHz Wi-Fi Networks
Salim Hanna (Communications Research Center Canada, Canada)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: Magic Kingdom Ballroom 1

CogRN11: Waveform Design and Modulation
Chair: Ismail Guvenc (Florida International University, USA)

Improved Active Interference Cancellation for Sidelobe Suppression in Cognitive OFDM Systems
Ehsan Haj Mirza Alian, Patrick Mitran (University of Waterloo, Canada)

Multiband Maximum Likelihood signal detection based on compressive measurement
Jonathan Verlant-Chenet, Jonathan Bodart (Université Libre de Bruxelles, Belgium)
Andre Bourdoux (IMEC, Belgium)
Philipe De Doncker , Jean-Michel Dricot, François Horlin (Université Libre de Bruxelles, Belgium)

Interference Alignment-Like Precoder Design in Multi-Pair Two-Way Relay Cognitive Radio Networks
Hua Mu, Jitendra Tugnait (Auburn University, USA)

Suppressing the Out-of-band Power Radiation in Multi-carrier Systems: A Comparative Study
Wei Jiang (Univerisity of Duisburg-Essen / Huawei Technologies Co. Ltd., Germany)
Malte Schellmann (Huawei Technologies Duesseldorf GmbH, Germany)

A Quadrature Signaling based Cooperative Scheme for Cognitive Radio Networks
Yujie Tang, Jon Mark (University of Waterloo, Canada)

Enhanced Spectrum Awareness with Extended Information Carried on Embedded Cyclostationary
Signatures for Cognitive Radio
Hanwen Cao, João Paulo C. L. Miranda, Jürgen Peissig (Leibniz Universität Hannover, Germany)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room G

CQ08: Network Design and Management
Chair: Christos Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)

ANGEL: Analog Network-Coded Game Theoretic Energy Efficient Layout for Data Dissemination
Angelos Antonopoulos (Telecommunications Technological Centre of Catalonia, Spain)
Harry Skianis (University of the Aegean, Greece)
Christos Verikoukis (Telecommunications Technological Centre of Catalonia, Spain)

Link Adaptation Algorithms for Channel Estimation Error Mitigation in LTE systems
Huiling Dai, Ying Wang, Ke Zhang, Cong Shi
(Beijing University of Posts and Telecommunications, China)

QoS Provisioning and Policy Management in a Broker-based CR Network Architecture
Athina Bourdena (University of the Aegean, Greece)
Evangelos Pallis (Technological Educational Insitute of Crete, Greece)
Georgios Kormentzas, Harry Skianis (University of the Aegean, Greece)
George Mastorakis (Technological Educational Institute of Crete, Greece)

Traffic Generator using Perlin Noise
Iria Prieto, Mikel Izal, Daniel Morato, Eduardo Magaña (Universidad Publica de Navarra, Spain)

Cooperative On-Demand Delivery for IPTV Networks
Aytac Azgin, Ghassan AlRegib, Yucel Altunbasak (Georgia Institute of Technology, USA)

Resource Management for Macrocell Users in Hybrid Access Femtocells
Elena Bernal-Mor, Vicent Pla (Universitat Politecnica de Valencia, Spain)
David M Gutierrez-Estevez (Georgia Institute of Technology, USA)
Jorge Martinez-Bauset (Universidad Politecnica de Valencia, Spain)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room F

CT07: Cooperative Communications II
Chair: Yupeng Jia (National Instruments, USA)

Performance of Pico-Cell Clusters with Cooperative Receivers
Khalid Zeineddine (Northwestern University / Nokia Siemens Networks, USA)
Michael Honig (Northwestern University, USA)
Shirish Nagaraj, Philip J. Fleming (Nokia Siemens Networks, USA)

Secret Key Agreement for Cooperative Wireless Communications: Bounds and Efficient Protocol Design
Ning Wang (University of Victoria, Canada)
Ning Zhang (Xidian University, China)
T. Aaron Gulliver (University of Victoria, Canada)

Outage Secrecy Rate in Wireless Relay Channels Using Cooperative Jamming
Jiangyuan Li, Shuangyu Luo, Athina Petropulu (Rutgers, USA)

Power Assignment in Multi-relay Adaptive DF Cooperative Networks
Jules Merlin Mouatcho Moualeu (University of KwaZulu-Natal, South Africa)
Walaa Hamouda (Concordia University, Canada)
HongJun Xu, Fambirai Takawira (University of KwaZulu-Natal, South Africa)

On the Achievable Degrees of Freedom of Partially Cooperative X Networks with Delayed CSIT
Zhao Wang, Chao Wang, Ming Xiao, Mikael Skoglund (Royal Institute of Technology, Sweden)

Distributed Space Time Coding for Wireless Two-way Relaying
Vijayvaradharaj Muralidharan, B. Sundar Rajan (Indian Institute of Science, India)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room H

NGNI08: Topics in Next Generation Networking & Internet I
Chair: Ved P. Kafle (National Institute of Information and Communications Technology, Japan)

Unveiling Technical Challenges for the Governance of end-to-end service Delivery and Autonomic infrastructures
Kostas Tsagkaris, Panagiotis Demestichas (University of Piraeus, Greece)
Gerard Nguengang (Thales Communications / Security SA, France)
Imen Grida Ben Yahia (Orange Labs, France)
Pierre Peloso (Alcatel-Lucent, France)

An Open Hardware Implementation of CUSUM based Network Anomaly Detection
Gianni Antichi, Christian Callegari, Stefano Giordano (University of Pisa, Italy)

Performance Evaluation of Packet Classification on FPGA-based TCAM Emulation Architectures
Carlos Zerbini (National Technological University, Argentina)
Jorge M Finochietto (National University of Cordoba & CONICET, Argentina)

Implementing a BGP-Free ISP Core with LISP
Florin Coras (Universitat Politècnica de Catalunya, Spain)
Damien Saucez (INRIA, France)
Lorⓐnd Jakab, Albert Cabellos-Aparicio (Universitat Politècnica de Catalunya, Spain)
Jordi Domingo-Pascual (Universitat Politècnica de Catalunya / Technical University of Catalunya, Spain)

Towards the Improvement of Diagnostic Metrics: Fault Diagnosis for DSL-Based IPTV Networks using the Renyi Entropy
Angelos K. Marnerides, Simon Malinowski, Ricardo Morla (University of Porto, Portugal)
Miguel Rodrigues (University College London, UK)
Hyong Kim (Carnegie Mellon University, USA)

Energy Efficient Multi-Topology Routing Configurations for Fast Failure Reroute in IP Networks
Steven S. W. Lee, Kuang-Yi Li (National Chung Cheng University, Taiwan)
Alice Chen (ITRI, Taiwan)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: Castle A

SAC-GNCS8: Green Cellular Wireless Communications

Chairs: Oliver Blume (Alcatel-Lucent Bell Labs, Germany)
Guowang Miao (Royal Institute of Technology, USA)

Energy Efficient Power Control and Beamforming in Multi-Antenna enabled Femtocells
Kapuruhamy Badalge Shashika Manosha, Satya Joshi, Nandana Rajatheva, Matti Latva-aho (
University of Oulu, Finland)

Energy-Efficient Power Optimization for Two-Tier Femtocell Networks Using Fictitious Game
Tao Su, Wei Li, Wei Zheng, Xiangming Wen, Zhen Liu
(Beijing University of Posts and Telecommunications, China)

A Stochastic Geometry Approach to Energy Efficiency in Relay-Assisted Cellular Networks
Na Deng, Sihai Zhang, Wuyang Zhou, Jinkang Zhu
(University of Science and Technology of China, China)

Energy Efficiency Optimization in Multi-user Cellular Systems with Radio Resource Constraints
Xiao Xiao, Xiaoming Tao, Jianhua Lu (Tsinghua University, China)

On the Coverage Preservation Problem in Green Cellular Networks
Chen-Yi Chang, Wanjiun Liao, Da-shan Shiu (National Taiwan University, Taiwan)

Dynamic Bandwidth Management for Energy Savings in Wireless Base Stations
Anton Ambrosy, Michael Wilhelm (Alcatel-Lucent Deutschland AG Bell Labs, Germany)
Wieslawa Wajda (Research, Germany)
Oliver Blume (Alcatel-Lucent Deutschland AG Bell Labs, Germany)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room J

SAC-PL 2: Power Line Communications and SmartGrid II
Chair: Hamed Mohsenian-Rad (University of California, Riverside, USA)

Performance of a PLC System in Impulsive Noise with Selection Combining
Ankit Dubey, R. K. Mallik (Indian Institute of Technology, Delhi, India)
Robert Schober (University of British Columbia, Canada)

Stabilizing the Power Supply in Microgrid Using Sensor Selection
Xin Wang, Qilian Liang (University of Texas, Arlington, USA)

A Flocking-Based Model for DoS-Resilient Communication Routing in Smart Grid
Jin Wei (Texas A&M University, USA)
Deepa Kundur (University of Toronto, Canada)

PLC Channel Characterization up to 300 MHz: Frequency Response and Line Impedance
Fabio Versolatto, Andrea M Tonello (University of Udine, Italy)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: Castle C

SPC10: Beamforming
Chair: Weifeng Su (State University of New York, Buffalo, USA)

Orthogonal Beamforming for Rural Broadband Wireless Access with Limited Feedback
Yingbo Li (Peking University, China)
Lin Bai (Beihang University, China)

Chen Chen, Ye Jin (Peking University, China)
Jinho Choi (Swansea University, UK)

Outage Balancing in Multiuser MISO Networks: Network Duality and Algorithms
Yichao Huang (University of California, San Diego, USA)
Chee Wei Tan (City University of Hong Kong, Hong Kong)
Bhaskar Rao (University of California, San Diego, USA)

A Decentralized Downlink Beamforming Algorithm for Multicell Processing
Tuan Anh Le, Mohammad Reza Nakhai (King's College London, UK)

Coordinated Multi-cell Beamforming Scheme Using Uplink-Downlink Max-Min SINR Duality
He Shiwen, Yongming Huang, Haiming Wang (Southeast University, China)
Arumugam Nallanathan (King's College London, UK)
Yang Luxi (Southeast University, China)

Distributed Penalty-Based Beamforming Design for Multi-Source Multi-Destination Networks
Fuyu Chen (State University of New York/ Buffalo / Huawei Technologies, USA)
Weifeng Su, Stella Batalama (State University of New York, Buffalo, USA)
John Matyjas (Air Force Research Laboratory/RIGF, USA)

Coordinated Relay Beamforming Based on the Worst-case SINR in Multicell Wireless Systems
Da Wang (Peking University, China)
Lin Bai (Beihang University, China)
Chen Chen, Ye Jin (Peking University, China)
Jinho Choi (Swansea University, UK)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: Monorail A

WC25: Spectrum Sensing and Cognitive Networks
Chair: Lingyang Song (Peking University, China)

Spectrum Sharing in Cognitive Two-Way Relay Networks
Yong Li, Mugen Peng, Wenbo Wang (Beijing University of Posts and Telecommunications, China)

Fair and Efficient Spectrum Splitting for Cooperative Cognitive Radio Networks
Kun Yang (University of Essex, UK)
Yan Jun Hu (China University of Mining and Technology, China)
Xiaoji Li (Guilin University of Electronic Technology, China)
Liang Hu (Jilin University, China)

Near-Optimal Spectrum Allocation for Cognitive Radios: A Frequency-Time Auction Perspective
Xinyu Wang, Gaofei Sun, Jikai Yin, Yinxu Wang, Xiaohua Tian, Xinbing Wang
(Shanghai Jiaotong University, China)

Spectrum Leasing Based on Bandwidth Efficient Relaying in Cognitive Radio Networks
Chao Zhai, Wei Zhang (University of New South Wales, Australia)
Pc Ching (Chinese University of Hong Kong, Hong Kong)

Towards Addressing Group Selfishness of Cluster-Based Collaborative Spectrum Sensing in Cognitive Radio Networks
Yiyong Sun, Zhaoyu Gao, Suguo Du, Shuai Li, Haojin Zhu (Shanghai Jiaotong University, China)
Xiaodong Lin (University of Ontario Institute of Technology, Canada)

Efficiency of Energy Detection for Spectrum Sensing in the Presence of Non-Cooperating Secondary Users
Abubakar U. Makarfi, Khairi A. Hamdi (University of Manchester, UK)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: Monorail B

WC26: Optimization in Wireless Systems
Chair: Marco Moretti (Università di Pisa, Italy)

Joint Optimization in Multi-Relay Multi-User Bidirectional Systems: Non-Robust and Robust Cases
Meng Zhang, Haike Yi, Hui Yu, HanWen Luo (Shanghai Jiaotong University, China)

On the Minimum Number of Active Anchors for Optimal Localization
Wenhan Dai, Yuan Shen, Moe Win (Massachusetts Institute of Technology, USA)

Chance-Constrained Robust Beamforming for Multi-Cell Coordinated Downlink
Chao Shen (Beijing Jiaotong University, China)
Tsung-Hui Chang (National Taiwan University of Science and Technology, Taiwan)
Kun-Yu Wang (National Tsing Hua University, Taiwan)
Zhengding Qiu (China)
Chong-Yung Chi (National Tsing Hua University, Taiwan)

Optimization of Wireless Access Point Placement in Realistic Urban Heterogeneous Networks
Yicheng Lin, Wei Yu (University of Toronto, Canada)
Yves Lostanlen (SIRADEL / University of Toronto, Canada)

Energy-Efficient Scheduling for Wireless Communication
Kuhn-Chang Lin (National Chiao Tung University, Taiwan)
Jiun-You Lai (Industrial Technology Research Institute, Taiwan)
Yu Ted Su (National Chiao Tung University, Taiwan)

Q-Learning Cell Selection for Femtocell Networks: Single- and Multi-User Case
Chaima Dhahri, Tomoaki Ohtsuki (Keio University, Japan)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: Monorail C

WC27: SC-FDMA and SC-FDE
Chair: Taewon Hwang (Yonsei University, Korea)

BER Analysis for MMSE-FDE-Based Interleaved SC-FDMA Systems over Nakagami-m Fading Channels
Miaowen Wen, Xiang Cheng (Peking University, China)
Zhongshan Zhang (University of Science and Technology Beijing, China)
Xiaohui Duan, Bingli Jiao (Peking University, China)

Joint Transceiver Design for MIMO Relay Systems Employing SC-FDE
Peiran Wu, Robert Schober, Vijay Bhargava (University of British Columbia, Canada)

Multiuser Pairing and Resource Allocation with Interference Avoidance for SC-FDMA Cellular Systems
Jiancun Fan (Xi'an Jiaotong University, China)
Geoffrey Li (Georgia Tech, USA)
Qinye Yin (Xi'an Jiaotong University, China)
Liangliang Li (Huawei Shanghai Research Institute, China)

D.C. Programming for Cooperative Beamforming in SC-FDMA Multi-User Multi-Relay Networks
Ha H Kha, Hoang D. Tuan (University of Technology, Sydney, Australia)
Ha Nguyen, Tung T. Pham (University of Saskatchewan, Canada)

Offset Modulated Single-Carrier FDMA with Flexible Users' Bandwidth
Wenjin Wang (University of Reading, UK)
Xiqi Gao (Southest University, China)
Fu-Chun Zheng (University of Reading, UK)

A Projection Based Approach for Radar and Telecommunication Systems Coexistence
Shabnam Sodagari (Virginia Tech, USA)
Awais Khawar (University of Maryland, USA)
T. Charles Clancy (Virginia Tech, USA)
Robert McGwier (Virginia Tech / AMSAT, Inc. / Flex Radio System, Inc., USA)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: North Exhibit Hall Room I

WN15: Wireless Relay Networks
Chair: Hassan Moradi (Qualcomm Inc., USA)

Employing Coded Relay in Multi-hop Wireless Networks
Zhenghao Zhang, Wei Hu, Jin Xie (Florida State University, USA)

Power Allocation/Beamforming for DF MIMO Two-Way Relaying: Relay and Network Optimization
Jie Gao (University of Alberta, Canada)
Jianshu Zhang (Ilmenau University of Technology, Germany)
Sergiy A. Vorobyov, Hai Jiang (University of Alberta, Canada)
Martin Haardt (Ilmenau University of Technology, Germany)

A Novel Multi-Objective Relay-Jammer Pair Selection Scheme in Wireless Cooperative Networks
Li Wang (Beijing University of Posts and Telecommunications, China)
Xi Zhang (Texas A&M University, USA)
Mei Song (China)
Tenghui Ke (Beijing University of Posts and Telecommunications, China)

Reducing End-to-End Distortion in Noisy Wireless Relay Networks
James Ho, Pin-Han Ho (University of Waterloo, Canada)

All-to-All Throughput Maximization in Wireless Relay Networks with Multiple Packet Reception
Deze Zeng (University of Aizu / Huazhong University of Science and Technology, Japan)
Song Guo (University of Aizu, Japan)
Mohsen Guizani (QU, USA)
Baoliu Ye (Nanjing University, China)

A Resource Allocation Algorithm for SVC Multicast over Wireless Relay Networks based on Cascaded
Coverage Problem
Hao Zhou (University of Science and Technology of China, China)
Yusheng Ji, Yu Gu (National Institute of Informatics, Japan)
Baohua Zhao (China)

Thursday, 6 December 2012 ● 13:30 – 15:30
Room: Castle B

WN16: Routing and Multicasting
Chair: Qinglong Liu (University of Electronic Science and Technology of China, China)

CPTT: A High-throughput Coding-aware Routing Metric for Multi-hop Wireless Networks
Hao Yue (University of Florida, USA)
Xiaoyan Zhu (Xidian University, China)
Chi Zhang (University of Science of Technology of China, USA)
Yuguang Fang (University of Florida, USA)

Heat Diffusion Algorithm for Resource Allocation and Routing in Multihop Wireless Networks
Reza Banirazi, Edmond Jonckheere, Bhaskar Krishnamachari (University of Southern California, USA)

Joint Topology Control and Routing Assignment for Wireless Mesh with Directional Antennas
Wangkit Wong, Xun Chen, Fei Long, Gary Chan
(Hong Kong University of Science and Technology, Hong Kong)

Group Aware Cooperative Routing for Opportunistic Networks under Resource Constraints
Honglong Chen, Wei Lou (Hong Kong Polytechnic University, Hong Kong)

UNCLE: A Unified Unicast and Multicast Label Forwarding Architecture in MANETs
Wen-Kang Jia, Li-Chun Wang (National Chiao Tung University, Taiwan)

Transmission Scheduling Based on a New Conflict Graph Model for Multicast in Multihop Wireless Networks
Maggie Cheng, Quanmin Ye (Missouri University of Science and Technology, USA)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room A

AHSN09: Topology Control and Repair
Chair: Qi Zhang (Aarhus University, Denmark)

HMRF-Based Distributed Fault Detection for Wireless Sensor Networks
Jianliang Gao, Jianxin Wang (Central South University, China)
Xi Zhang (Texas A&M University, USA)

Topology Control with a Limited Number of Relays
Fei Che, Errol L. Lloyd (University of Delaware, USA)
Jason O. Hallstrom (Clemson University, USA)
S. s. Ravi (University at Albany, USA)

Autonomous Recovery from Multi-node Failure in Wireless Sensor Network
Yatish K Joshi, Mohamed Younis (University of Maryland, Baltimore County, USA)

Bio-inspired Low-Complexity Clustering in Large-scale Dense Wireless Sensor Networks
Qi Zhang, Rune Hylsberg Jacobsen, Thomas S. Toftegaard (Aarhus University, Denmark)

Load and Energy Aware Topology Control in Wireless Ad-hoc Networks
Tandra Chakraborty, Fazlay Rabbi (Bangladesh University of Engineering and Technology, Bangladesh)
Aungon Nag Radon (Simon Fraser University, Canada)
Ashikur Rahman (State University of New York, USA)

Design and Evaluation of Small-World Wireless Ad-Hoc Networks under Rayleigh Fading
Amir Ehsani Zonouz (University of Massachusetts, Dartmouth, USA)
Navid Tadayon, Sonia Aïssa (INRS, University of Quebec, Canada)

Liudong Xing (University of Massachusetts, Dartmouth, USA)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room B

AHSN18: Management and Throughput Modeling
Chair: Maggie Cheng (Missouri University of Science and Technology, USA)

Deployment Framework for Mobile Underwater Wireless Networks with Node Reuse
Son N. Le, Michael Zuba, Zheng Peng, Jun-Hong Cui (University of Connecticut, USA)
Jie Wang (University of Massachusetts, USA)

LRSA: A Multi-Components Wireless Sensor Network Management Framework
Lutful Karim (University de Moncton, Canada)
Qusay Mahmoud (University of Guelph, Canada)
Nidal Nasser (Alfaisal University, Saudi Arabia)
Nargis Khan (Ryerson University, Canada)

Machine Learning Approach to Data Center Monitoring using Wireless Sensor Networks
Rahul Khanna (Intel, USA)
Huaping Liu (Oregon State University, USA)

LPBT: An Energy-Aware Link Quality Metric for Wireless Mesh Networks
Asitha U. Bandaranayake (University of Cincinnati / University of Peradeniya, USA)
Vaibhav Pandit, Dharma P. Agrawal (University of Cincinnati, USA)

Throughput Capacity in Mobile Ad-hoc Networks with Correlated Mobility and f-cast Relay
Chen Wang, Baoliu Ye, Xiaoliang Wang, Sanglu Lu (Nanjing University, China)

Adaptive Battery Charge Scheduling with Bursty Workloads
Dylan Lexie, Shan Lin, Jie Wu (Temple University, USA)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room C

CISS09: Wireless Network Security III
Chair: Albert Levi (Sabanci University, Turkey)

Jamming-Resistant Rate Control in Wi-Fi Networks
Cankut Orakcal, David Starobinski (Boston University, USA)

Dependence of Optimal Monitoring Strategy on the Application to be Protected
Andrey Garnaev (St.-Petersburg State University, Russia)
Wade Trappe, Chun-Ta Kung (Rutgers University, USA)

Thwarting Diversity Attacks in Wireless Network Coding Using Threshold Signatures and a Sender-Centered Approach
Juan Camilo Corena, Tomoaki Ohtsuki (Keio University, Japan)

Characterization of Linear Network Coding for Pollution Detection
Jian Li (Michigan State University, USA)
Chao Yang (Xidian University / Michigan State University, USA)
Di Tang, Tongtong Li, Jian Ren (Michigan State University, USA)

Secure communications with untrusted secondary users in cognitive radio networks

Hyoungsuk Jeon, Steven McLaughlin (Georgia Institute of Technology, USA)
Jeongseok Ha (KAIST, Korea)

DDoS Attack on WAVE-enabled VANET through Synchronization
Subir Biswas (Univerisity of Manitoba, Canada)
Jelena Mišić, Vojislav B. Mišić (Ryerson University, Canada)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room D

CogRN10: Spectrum Sensing II
Chair: Doohwan Lee (University of Tokyo, Japan)

Real-time Cyclostationary Analysis for Cognitive Radio via Software Defined Radio
Ruolin Zhou (Western New England University, USA)
Xue Li (Wright State University, USA)
T. Yang (National Sun Yat-Sen University, Taiwan)
Zhiqiang Liu (Naval Research Laboratory, USA)
Zhiqiang Wu (Wright State University, USA)

Eigenvalue-based Cyclostationary Spectrum Sensing Using Multiple Antennas
Paulo Isagani M. Urriza, Eric Rebeiz, Danijela Cabric (University of California, Los Angeles, USA)

Spectrum Sensing via Universal Source Coding
Jithin K. Sreedharan, Vinod Sharma (Indian Institute of Science, India)

Comparison of Cooperative Spectrum Sensing Strategies in Distributed Cognitive Radio Networks
Jin Lai, Eryk Dutkiewicz (Macquarie University, Australia)
Ren Ping Liu (CSIRO, Australia)
Rein Vesilo (Macquarie University, Australia)

The Effect of Additional Statistical Side Information on Multiple Antenna Spectrum Sensing
Amirhossein Tabesh, Abbas Taherpour (Imam Khomeini International University, Iran)
Tamer Khattab (Qatar University, Qatar)

A Group Testing Based Spectrum Hole Search Using a Simple Sub-Nyquist Sampling Scheme
Abhay Sharma, Chandra R. Murthy (Indian Institute of Science, India)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: Monorail B

CQ09: Robustness in Communication Networks
Chair: Georgios Karagiannis (University of Twente, Netherlands)

SDRE: Selective Data Redundancy Elimination for Resource Constrained Hosts
Yan Zhang, Nirwan Ansari (NJIT, USA)
Mingquan Wu, Heather Yu (Huawei Technologies, USA)

Quantifying and Mitigating IGMP Filtering in Topology Discovery
Pietro Marchetta (University of Napoli, Italy)
Pascal Mérindol (Université de Strasbourg, France)
Benoit Donnet (Université de Liège (ULg), Belgium)
Antonio Pescapé (University of Napoli Federico II, Italy)
Jean-Jacques Pansiot (Université de Strasbourg, France)

Optimal Algorithms for Near-Hitless Network Restoration via Diversity Coding
Serhat N. Avci, Ender Ayanoglu (University of California, Irvine, USA)

Resource Constrained Failure Management in Networked Computing Systems
Praveen Bommannavar, Nicholas Bambos (Stanford University, USA)

A Reliability Analysis of Datacenter Topologies
Rodrigo S. Couto, Miguel Elias Mitre Campista, Luís Henrique M. K. Costa
(Federal University of Rio de Janeiro, Brazil)

Multiplexing-Diversity Balanced Cooperative Wireless Cellular Networks Based on Alamouti Space Time Code for Multimedia Transmission
Kun Hua (Lawrence Technological University, USA)
Wei Wang (South Dakota State University, USA)
Honggang Wang (University of Massachusetts, Dartmouth, USA)
Ali S. Alghamdi (Saudi Red Crescent Authority / Oakland University, USA)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room F

CT09: MIMO System Design and Analysis
Chair: Hamid Jafarkhani (University of California, Irvine, USA)

Degrees of Freedom of 2-user and 3-User Rank-Deficient MIMO Interference Channels
Sundar Rajan Krishnamurthy, Syed Ali Jafar (University of California, Irvine, USA)

Performance Analysis of Distributed MIMO Systems in Rayleigh/Inverse-Gaussian Fading Channels
Vetriselvam Gopal, Michail Matthaiou (Chalmers University of Technology, Sweden)
Caijun Zhong (Zhejiang University, China)

On the Asymptotic Sum-Rate of Uplink MIMO Cellular Systems in the Presence of Non-Gaussian Inter-Cell Interference
Maksym A. Girnyk (Royal Institute of Technology, Sweden)
Mikko Vehkaperä (Aalto University / Royal Institute of Technology, Finland)
Lars K. Rasmussen (Royal Institute of Technology, Sweden)

A Receiver Design for MIMO Systems over Rayleigh Fading Channels with Correlated Impulse Noise
Khodr A. Saaifan, Werner Henkel (Jacobs University Bremen, Germany)

Sum Rate Maximization Antenna Selection via Discrete Stochastic Approximation in MIMO Two-Way AF Relay with Imperfect CSI
Gang Liu, Hong Ji, Yi Li, Xiaoliang Zhang
(Beijing University of Posts and Telecommunications, China)

Optimal MIMO Transmission with Per-antenna Power Constraints
Zhouyue Pi (Samsung Telecommunications America, USA)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room G

NGNI09: Routing
Chair: Mohammad Reza Nakhai (King's College London, UK)

On Energy Efficient Routing Using Cooperative Physical Layer Network Coding
Auon Muhammad Akhtar (King's College London / Mobile VCE, UK)

Mohammad Reza Nakhai, Hamid Aghvami (King's College London, UK)

Stateless Multi-Stage Dissemination of Information: Source Routing Revisited
János Tapolcai, András Gulyás, Zalan Heszberger, Jozsef Biro, PéterBabarczi
(Budapest University of Technology and Economics, Hungary)
Dirk Trossen (University of Cambridge, United Kingdom)

QoS-aware Multi-Plane Routing for Future IP-based Access Networks
Alexandre Jaron, Matthieu Danel, Paul Faucheux, Andrej Mihailovic, Hamid Aghvami
(King's College London, UK)

Delay Constrained Multicast Routing: What can we learn from an exact approach?
Gang Feng (University of Wisconsin, Platteville, USA)

A Two-layer Intra-domain Routing Scheme for Named Data Networking
Huichen Dai, Jianyuan Lu, Yi Wang, Bin Liu (Tsinghua University, China)

Depth-First Worst-Fit Search based Multipath Routing for Data Center Networks
Tosmate Cheocherngngarn, Hao Jin, Jean Andrian, Deng Pan, Jason Liu
(Florida International University, USA)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room H

NGNI10: Topics in Next Generation Networking & Internet II
Chair: Ved P. Kafle (National Institute of Information and Communications Technology, Japan)

IBTrack: An ICMP Black holes Tracker
Ludovic Jacquin (INRIA, France)
Vincent Roca (INRIA Rhône-Alpes, France)
Mohamed Ali Kaafar, Fabrice Schuler (INRIA, France)
Jean-Louis Roch (University of Grenoble, France)

Influence Maximization in Noncooperative Social Networks
Yile Yang, Victor O. K. Li, Kuang Xu (University of Hong Kong, China)

Evaluation of the Socio-economic Implications of Contractual Mobility in Roaming Architectures
Gabriele Corliano (BT, UK)
Christopher Edwards, Nicholas Race (Lancaster University, UK)

Automatic Originator Regulation of IMS Multiple Traffic by Stateless Signaling Prioritization
Wei Zhu (University of Tokyo, Japan)
Ahmad Kamil Abdul Hamid (University of Tokyo / Telekom Malaysia Berhad, Japan)
Yoshihiro Kawahara, Tohru Asami (University of Tokyo, Japan)
Yoshitoshi Murata (Iwate Prefectural University, Japan)

Neighborhood Search and Admission Control in Cooperative Caching Networks
Walter Wong (State University of Campinas, Brazil)
Liang Wang, Jussi Kangasharju (University of Helsinki, Finland)

Performance Evaluation of Security Routing Strategies to Avoid DoS Attacks in WSN
Lynda Mokdad (Université de Paris 12 / Laboratoire LACL, France)
Jalel Ben-Othman (University of Paris 13, France)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room J

SAC-GNCS9: Green Communications under Quality of Service Constraints
Chair: Zuqing Zhu (University of Science and Technology of China, China)

Energy Efficient Multiuser Scheduling: Exploiting the Loss Tolerance of the Application
Muhammad Majid Butt (University of Luxembourg, Luxemburg)
Eduard Jorswieck (Dresden University of Technology, Germany)

An Energy Efficient Multicast Transmission Scheme with Patching Stream Exploiting User Behavior in
Wireless Networks
Yu Huang, Wenbo Wang, Xing Zhang, Wei Yao
(Beijing University of Posts and Telecommunications, China)

Energy-Efficient Scheduling and Energy-Delay Tradeoff in Green Hybrid Fiber-Coaxial Networks
Ping Lu, Yabo Yuan (University of Science and Technology of China, China)
Farid Farahmand (Sonoma State University, USA)
Joel J. P. C. Rodrigues (University of Beira Interior, Portugal)
Zuqing Zhu (University of Science and Technology of China, China)

Streaming Server Management Scheme for Reducing Power Consumption
Kimihiro Mizutani, Toru Mano, Osamu Akashi, Tetsuo Kawano (NTT, Japan)
Hiroshi Shimizu (NICT, Japan)

Energy-Efficient Power Allocation for Delay-Constrained Systems
Leila Musavian, Tho Le-Ngoc (McGill University, Canada)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: Castle B

SPC11: Signal Processing for Communications III
Chair: Hung Nguyen (The Aerospace Corporation, USA)

Synchronization Algorithm of Resonator Isolation System for Efficient Power and Data Transmission
Uikun Kwon, Sang Joon Kim, Seung Keun Yoon (Samsung, Korea)

Frequency-division Spread-spectrum makes Frequency Synchronisation Easy
Tohru Kohda, Yutaka Jitsumatsu (Kyushu University, Japan)
Kazuyuki Aihara (University of Tokyo, Japan)

Synchronization and Matched Filtering in Time-Frequency using the Sunflower Spiral
Cornelis Korevaar, Andre Kokkeler, Pieter-Tjerk de Boer, Gerard Smit
(University of Twente, Netherlands)

Coarse Frame Synchronization for OFDM Systems Using SNR Estimation
Fan Yang (University of Electronic Science and Technology of China, China)
Xi Zhang (Texas A&M University, USA)
Zhong-pei Zhang (University of Electronic Science and Technology of China, China)

Modulation Classification Based on Gaussian Mixture Models under Multipath Fading Channel
Gejie Liu, Xianbin Wang, Jay Nadeau (University of Western Ontario, Canada)
Hai Lin (Osaka Prefecture University, Japan)

Information Theoretic Bounds for Angle-Doppler Estimation in Time Reversal MIMO Communication

Foroohar Foroozan, Amir Asif (York University, Canada)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: Castle C

WC28: Wireless Channels and Propagation
Chair: Camillo Gentile (NIST, USA)

Propagation Measurements and Analysis of Fading Behavior for High Speed Rail Cutting Scenarios
Ruisi He, Zhangdui Zhong, Ai Bo, Jian-wen Ding (Beijing Jiaotong University, China)
Yaoqing (Lamar) Yang (University of Nebraska-Lincoln, USA)

A Hybrid Propagation Model for Large-scale Variations Caused by Vehicular Traffic in Small Cells
Laurent Maviel (CITI Laboratory / SIRADEL, France)
Yves Lostanlen (SIRADEL / University of Toronto, Canada)
Jean-Marie Gorce (INSA-Lyon, France)

A Raytracing Model for Wireless Propagation in Tunnels with Varying Cross Section
Camillo Gentile, Fabien Valoit, Nader Moayeri (NIST, USA)

A New Path Loss Modeling Approach for In-Building Wireless Networks
Aliye Ozge Kaya (Bell Labs, Alcatel-Lucent, USA)
Larry J. Greenstein (Rutgers University, USA)

Time-Variant Channel Modeling with Application to Mobile Radio Based Positioning
Wei Wang, Jost Thomas, Uwe-Carsten G. Fiebig (German Aerospace Center, Germany)
Wolfgang Koch (University of Erlangen, Germany)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: Monorail A

WC29: Interference Management II
Chair: Hayssam Dahrouj (University of Toronto, Canada)

Transceiver Design Based on Interference Alignment for MIMO Interfering Broadcast Channels
Hyun-Ho Lee, Myeong-Jin Kim, Young-Chai Ko (Korea University, Korea)

Interference Mitigation via Power Control under the One-Power-Zone Constraint
Hayssam Dahrou, Wei Yu (University of Toronto, Canada)
Jerry Chow, Radu Selea (BlinQ Networks Inc., Canada)

Interference-Avoidance Pilot Design using ZCZ Sequences for Multi-Cell MIMO-OFDM Systems
Rongqing Zhang, Xiang Cheng, Meng Ma, Bingli Jiao (Peking University, China)

Traffic-based Dynamic Spectrum Management for Inter-cell Interference Coordination in LTE Networks
Hongcheng Zhuang, Zezhou Luo (Huawei Technologies, China)
Mikhail Pikhletsky, Dmitri Shmelkin. (Huawei Technologies, Russia)
Farid Khafizov (Huawei Technologies, China)

Novel Macro- and Femtocell Interference Mitigation in OFDMA Wireless System
Gang Ning, Qinghai Yang (Xidian University, China)
Kyung Sup Kwak (Inha University, Korea)
Lajos Hanzo (University of Southampton, UK)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: Castle A

WC30: Random Access Networks
Chair: Timothy Brown (University of Colorado, USA)

Dynamic Contention Window Adjustment Scheme for Improving Throughput and Fairness in IEEE 802.11 Wireless LANs
Qin Yu, Yiqun Zhuang, Lixiang Ma (University of Electronic Science and Technology of China, China)

Capacity in Arbitrary Wireless Ad Hoc Networks with MIMO and Power Constraint
Jian Li, Jinbei Zhang, Luoyi Fu, Xinbing Wang, Xiaohua Tian (Shanghai Jiaotong University, China)

Acknowledgement-Aware MPR MAC Protocol for Distributed WLANs: Design and Analysis
Arpan Mukhopadhyay (University of Waterloo, Canada)
Neelesh B. Mehta (Indian Institute of Science, India)
Vikram Srinivasan (Bell Labs Research, India)

Towards Collisions: An Enhanced Successive Interference Cancellation with Asynchronism
Qiang Li, See Ho Ting (Nanyang Technological University, Singapore)
Mehul Motani (National University of Singapore, Singapore)
Ashish Pandharipande (Philips Research Laboratories, Netherlands)

On the Collision Model of Multi-Packet Wireless Networks Realized by Spatial Reuse
Fulvio Babich, Massimiliano Comisso (University of Trieste, Italy)

Cross-Layer Collision-Tolerant MAC with Message Passing Detection
Jingxian Wu, uoqing Zhou (University of Arkansas, USA)

Thursday, 6 December 2012 ● 16:00 – 18:00
Room: North Exhibit Hall Room I

WN17: Network Performance Optimization
Chair: Maode Ma (Nanyang Technological University, Singapore)

A Novel Cross Layer TCP Optimization Protocol over Wireless Network by Markov Decision Process
Hengheng Xie (Paradise Research Lab, Canada)
Richard W. Pazzi (University of Ontario Institute of Technology, Canada)
Azzedine Boukerche (University of Ottawa, Canada)

Joint Optimization of TCP Congestion Control and Distributed CSMA Scheduling
Xin Wang, Zhaoquan Li (Florida Atlantic University, USA)

A Flow Admission Control Scheme for QoS in Wireless Ad Hoc Networks
Yang Qin (HIT Shenzhen Graduate School, China)
Yuanyuan Yang (Stony Brook University, USA)
Gwee Choon Lim (Nanyang Technological University, Singapore)
Xiang He (HIT ShenZhen Graduate School, China)

Improving Throughput by Fine-grained Channel Allocation in Cooperative Wireless Networks
Peng Li, Song Guo (University of Aizu, Japan)
Victor CM Leung (The University of British Columbia, Canada)

Rate Adaptation Strategy for Video Streaming over Multiple Wireless Access Networks
Min Xing, Siyuan Xiang, Lin Cai (University of Victoria, Canada)

Practical Coding-based Multi-hop Reliable Data Transfer for Underwater Acoustic Networks

Haining Mo, Zhong Zhou, Michael Zuba, Zheng Peng, Jun-Hong Cui (University of Connecticut, USA)
Yantai Shu (Tianjin University, China)