

# **2011 International Conference on Wireless Communications and Signal Processing**

**(WCSP 2011)**

**Nanjing, China  
9 – 11 November 2011**

**Pages 1-713**



**IEEE Catalog Number: CFP1170H-PRT**  
**ISBN: 978-1-4577-1009-4**

# TABLE OF CONTENTS

|  |            |
|--|------------|
| <b>Abnormal ECG Signal Detection based on Compressed Sampling in Wearable ECG Sensor .....</b>   | <b>1</b>   |
| <i>Hao Ding, Hong Sun, Kun-Mean Hou</i>  |            |
| <b>A Method for Cooperative Relay Selection in SC-FDMA Uplink .....</b>  | <b>6</b>   |
| <i>Huang Xin, Sun Enchang, Zhang Yanhua</i>  |            |
| <b>A 1 V Folded Common-Gate CMOS Low Noise Amplifier for Wireless Sensor Network Applications .....</b>                                    | <b>11</b>  |
| <i>Feng Zou, Zhiqun Li, Meng Zhang</i>   |            |
| <b>A Soft IP Core for a Reflective Optical Sensor in a Robot System on Chip .....</b>  | <b>15</b>  |
| <i>Liberty Mutaaranwa, Michael Collier</i>   |            |
| <b>A Time-Difference-of-Arrival Location Method Based on Residual Sorting and Weighted Matrix Amended.....</b>                             | <b>19</b>  |
| <i>Geng Jian, Zhang Linghua</i>  |            |
| <b>Energy-Efficient Multi-User Relay Networks .....</b>  | <b>24</b>  |
| <i>Huan Yu, Ruogui Xiao, Yunzhou Li, Jing Wang</i>   |            |
| <b>Accurate and Computation-Efficient Localization for Mobile Sensor Networks.....</b>   | <b>29</b>  |
| <i>Yunlong Wang, Ze Wang</i>   |            |
| <b>Time Synchronization Error and PRF in Pulse Jamming Against ISAR .....</b>  | <b>34</b>  |
| <i>Shi-Rui Peng,</i>   |            |
| <b>Dual Layered Security Protocol (DLSP).....</b>  | <b>38</b>  |
| <i>Nabajyoti Patowary, Hemanga Krishna Borah</i>   |            |
| <b>Error Resilient Arithmetic Coding for Wireless Robust Image Transmission.....</b>   | <b>44</b>  |
| <i>Yipeng Sun, Yukui Pei, Mai Xu, Jianhua Lu</i>   |            |
| <b>An Improved Interference Mitigation Scheme Based on Interference Subspace Alignment .....</b>   | <b>49</b>  |
| <i>Shiwen He, Yongming Huang, Luxi Yang</i>  |            |
| <b>Stereoscopic Visualization of Monocular Images in Photo Collections.....</b>  | <b>54</b>  |
| <i>Shahrouz Yousefi, Farid Abedan Kondori, Haibo Li</i>  |            |
| <b>Robust Correction of 3D Geo-Metadata in Photo Collections by Forming a Photo Grid .....</b>   | <b>59</b>  |
| <i>Shahrouz Yousefi, Farid Abedan Kondori, Haibo Li</i>  |            |
| <b>Cognitive Radio Spectrum Sharing using Improved Quantum Genetic Algorithm .....</b>   | <b>64</b>  |
| <i>Fei Li,</i>   |            |
| <b>Improved Joint Compensation Scheme of Transmitter and Receiver IQ Imbalances in OFDM Systems .....</b>                                  | <b>70</b>  |
| <i>Liang Yan, Shu Feng, Shi Xiajie, Fan Haiqiang, Berber Stevan, Lu Jinhui</i>   |            |
| <b>Wideband Dynamic Base Station Selection for Downlink Coordinated Multipoint System .....</b>  | <b>74</b>  |
| <i>Shulei Gong, Pengcheng Zhu, Xiangyang Meng, Xiaohu You</i>  |            |
| <b>Dynamic Updating Based Key Management Algorithm for Wireless Sensor Networks .....</b>  | <b>79</b>  |
| <i>Yunhua Rao, Jinhua Wang, Rong Tian, Fengyuan Zhu</i>  |            |
| <b>A Low-Voltage CMOS Programmable Gain Amplifier for WSN Application.....</b>   | <b>84</b>  |
| <i>Huang Libin, Li Zhiqun</i>  |            |
| <b>A Limited Feedback Strategy for Cooperative Multicell MISO Systems .....</b>  | <b>88</b>  |
| <i>Fengfeng Shi, Wei Xu, Chunming Zhao</i>   |            |
| <b>An Improved Distributed Iterative Beamforming Algorithm with Cooperative Base Stations .....</b>  | <b>93</b>  |
| <i>Jiamin Li, Dongming Wang, Pengcheng Zhu, Xiaohu You, Lan Tang</i>   |            |
| <b>Analysis of Other Spot-beam Interference in TD-SCDMA Compatible Satellite System .....</b>  | <b>98</b>  |
| <i>Jian Guo, Shubo Ren, Ying Si, Jianjun Wu</i>  |            |
| <b>An Energy Optimization Scheme Based on Rate Guarantee in Emergency Mesh Network.....</b>  | <b>102</b> |
| <i>Su Zhao, Changqing Liang, Qingmin Meng</i>  |            |
| <b>Implementation Of MVDR Detector using Cascaded Modular Structure .....</b>  | <b>107</b> |
| <i>Zhongjie Li, Cuitao Zhu</i>   |            |
| <b>Analysis of Channel Correlation Characteristics in GEO Mobile Satellite Communications.....</b>   | <b>111</b> |
| <i>Xiaoyan Xu, Shubo Ren, Jianjun Wu, Haige Xiang</i>  |            |
| <b>Dynamic Channel Allocation Algorithm Based on Parameter Estimation in Cognitive Radio .....</b>   | <b>115</b> |
| <i>Yin Long Jiang Zhu Fangwei Li</i>   |            |
| <b>An Improved Distributed Bayesian Algorithm for Fault-Tolerant Detection in Electromagnetic Spectrum Monitoring Sensor Networks.....</b> | <b>120</b> |
| <i>Zhang Yu, Zhao Hangsheng, Liu Qiongli</i>   |            |
| <b>Frequency Synchronization Scheme for LTE Downlink in Cell Handover of HST Environment .....</b>   | <b>125</b> |
| <i>Lihua Yang, Guangliang Ren, Zhiliang Qiu</i>  |            |

|  |     |
|--|-----|
| <b>A 1V Active-RC Complex Filter for Wireless Sensor Networks Application</b> .....  | 130 |
| <i>Zeng Yi, Zhiqun Li</i>  |     |
| <b>The Uplink Capacity of SA-MIMO System under Single-User Scenario</b> .....  | 134 |
| <i>Jianxin Dai, Ming Chen, Pei-Jung Chung</i>  |     |
| <b>Optimizing Bit-Interleaved Coded Modulation for Half-Duplex Relay Based on Protograph Codes</b> .....   | 139 |
| <i>Sun Xiaojun, Ming Jiang, Wei Xu, Chunming Zhao, Meiling Ding</i>  |     |
| <b>A Multi-user MIMO Resource Scheduling Scheme for Carrier Aggregation Scenario</b> .....   | 145 |
| <i>Na Lei, Caili Guo, Chunyan Feng, Yu Chen</i>  |     |
| <b>Estimating the Frequencies of Harmonics in Multiplicative and Additive Noise Based on Subspace Rotational Invariance</b> .....                  | 150 |
| <i>Shiyong Yang, Tao Jiang</i>   |     |
| <b>Design of 12bit 100MHz Sample and Hold Circuit for Pipeline ADC</b> .....   | 154 |
| <i>Zheng Hao, Fan Xiangning, Sun Yutao</i>   |     |
| <b>An Efficient Adaptive Receiver for MIMO-OFDM Systems</b> .....  | 159 |
| <i>Hong Shen, Hua Zhang, Chunming Zhao</i>   |     |
| <b>A Video Watermarking Algorithm Based on Three Dimensional Wavelet Transform</b> .....   | 164 |
| <i>Cao Lin, Jiang Wei</i>  |     |
| <b>Layer reduced K-Best Sphere Decoding</b> .....  | 167 |
| <i>Xinyu Mao, Shubo Ren, Haige Xiang</i>   |     |
| <b>Indoor Localization Using Inertial Sensors and Ultrasonic Rangefinder</b> .....   | 171 |
| <i>Rui Zhang, Fabian Hoeflinger, Omar Gorgis, Leonhard M. Reindl,</i>  |     |
| <b>Practical Beam Broadening for Space-borne SAR using Phase-Only Pattern Synthesis</b> .....  | 176 |
| <i>Zeng Xiangneng, Zhang Yongshun, He Feng, Dong Zhen</i>  |     |
| <b>Bi-directional Communication with Eigenmode Sharing</b> .....   | 180 |
| <i>Mai Xu, Zhiguo Ding, Bayan Sharif, Jianhua Lu</i>   |     |
| <b>Adaptive Mobility-Assisted Data Collection in Wireless Sensor Networks</b> .....  | 185 |
| <i>Liang He, Jun Tao, Jianping Pan, Jingdong Xu</i>  |     |
| <b>Outage Performance for Parallel Relay-Assisted Free-Space Optical Communications in Strong Turbulence with Pointing Errors</b> .....            | 191 |
| <i>Min Feng, Jun-Bo Wang, Ming Sheng, Ling-Ling Cao, Xiu-Xiu Xie Ming Chen</i>   |     |
| <b>Creating Visual Vocabulary Based on SIFT Descriptor In Compressed Domain</b> .....  | 196 |
| <i>Lei Sui, Jing Zhang, Li Zhuo, Yuncong Yang</i>  |     |
| <b>Projection-based Power Allocation Scheme for Joint Transmission System</b> .....  | 201 |
| <i>Chunyan Yan, Ke Deng, Hui-Ming Wang</i>   |     |
| <b>On the BCJR Algorithm for Asynchronous Physical-layer Network Coding</b> .....  | 206 |
| <i>Xiaofu Wu, Chunming Zhao, Xiaohu You</i>  |     |
| <b>An Optimized Selection Algorithm via Adaptive Correlation Threshold on Integrated Chaotic Spread-spectrum Sequences</b> .....                   | 210 |
| <i>Li Sijia, Mao Yu-Quan, Li Bo, Peng Wei-Dong, Pei Xin</i>  |     |
| <b>Multi-user OFDM Subcarrier Allocation for Cognition Radio</b> .....   | 215 |
| <i>Mei Zhao, Bo Zhang, Cunhua Pan</i>  |     |
| <b>A Sparse Reconstruction Algorithm with Hierarchical Bayesian Analysis for Wideband Spectrum Detection</b> .....                                 | 220 |
| <i>Xiaorong Xu, Jianwu Zhang, Baoyu Zheng</i>  |     |
| <b>Accurate Channel Estimation and Wavelet-based Interference Estimation Methods and Application in Downlink Beamforming for LTE Systems</b> ..... | 225 |
| <i>Ruijuan Sun, Ke Deng, Pengcheng Mu, Hui-Ming Wang</i>   |     |
| <b>Algorithm of Multi-signals Separation for Shortwave Broadband Receiver</b> .....  | 231 |
| <i>Yan-Kun Dong, Dong-Ling Zhang, Lin-Dong Ge</i>  |     |
| <b>A Novel Transmit Beamforming Scheme for BER Improvement in EIRP Constrained UWB Systems</b> .....   | 236 |
| <i>Shou Han, Xiantao Cheng, Gang Wu, Guangrong Yue</i>   |     |
| <b>Compressed Channel Estimation based on Optimized Measurement Matrix</b> .....   | 241 |
| <i>Xiaochao Xiao, Baoyu Zheng, Chenhao Wang</i>  |     |
| <b>Modified Spread-transform Dither Modulation</b> .....   | 246 |
| <i>Yifengzhang, Chengweijia, Zhengkangxu, Kai Wang, Wenjiang Pei</i>   |     |
| <b>An Efficient Algorithm for Indoor Location Based on RFID</b> .....  | 251 |
| <i>Jing Chen, Gengmin Li, Xuejun Zhang, Tuanfa Qin</i>   |     |
| <b>A 2.4 GHz Low Power Folded Down-conversion Quadrature Mixer in 0.18-<math>\mu</math>m CMOS*</b> .....   | 255 |
| <i>Dongjun Shen, Zhiqun Li</i>   |     |
| <b>Polar codes and Its Application in Speech Communication</b> .....   | 259 |
| <i>Shengmei Zhao, Peng Shi, Bei Wang</i>   |     |

|  |     |
|--|-----|
| <b>MAP Equalization in Indoor Visible Light Communication</b> .....  | 263 |
| <i>Xiu-Xiu Xie, Jun-Bo Wang, Xiaoyu Dang, Ling-Ling Cao, Ming Sheng, Min Feng</i>  |     |
| <b>Proportional Fair Scheduling Schemes for Highly Transmit Correlated Channels</b> .....  | 268 |
| <i>Qiang Sun, Jue Wang, Yuan Zhang, Shi Jin, Xiqi Gao</i>  |     |
| <b>Performance Analysis of Time Division Broadcast Protocol with Incremental Relaying</b> .....  | 273 |
| <i>Kun Xu, Yuanyuan Gao, Xiaoxin Yi</i>  |     |
| <b>Compressive Parametric GLRT Detector for Airborne MIMO Radar</b> .....  | 278 |
| <i>Siva Karteek Boliseti, Khawza Ahmed, Mohammad Patwary, Mohamed Abdel-Maguid</i>   |     |
| <b>An Improved AODV Routing Protocol for VANETs</b> .....  | 283 |
| <i>Ben Ding, Zehua Chen, Yan Wang, Hui Yu</i>  |     |
| <b>An Energy-Efficient Distributed Compressed Sensing Architecture for Wireless Sensor Networks Based on a Distributed Wavelet Compression Algorithm</b> .....         | 288 |
| <i>Hai-Feng Hu, Zhen Yang</i>  |     |
| <b>Improving Primary Throughput by Cognitive Relay Beamforming with Best-Relay Selection</b> .....   | 292 |
| <i>Xinrong Guan, Yueming Cai, Weiwei Yang</i>  |     |
| <b>Moving Target Detection Based on Long Coherent Processing Interval for Vehicle-borne Low Frequency SAR System</b> .....   | 297 |
| <i>Zhou Zhimin, Zhou Hong, Huang Xiaotao, Lei Pengzheng, Chang Yulin, Jin Tong</i>   |     |
| <b>Two Blind Algorithms of MMSE Filter Based on Second-Order Statistics in MIMO Systems with Multiple Interferences</b> .....  | 301 |
| <i>Fan He, Xu Wang, Tao Yang, Bo Hu, Rueywen Liu</i>   |     |
| <b>Robust Transceiver Beamforming in MIMO Cognitive Radio via Second-Order Cone Programming</b> .....  | 306 |
| <i>H. Du, T. Ratnarajah</i>  |     |
| <b>Processing Piecewise Autoregressive Model Image Interpolation Algorithm on GPU with CUDA</b> .....  | 311 |
| <i>Yin Kui-Ying Jin Lin Yu Jun-Peng, Xu Lu-Ping</i>  |     |
| <b>Construction of Irregular Quasi-Cyclic LDPC Codes Based on Euclidean Geometries</b> .....   | 315 |
| <i>Xueqin Jiang, Moon Ho Lee , Xiaofei Liao, Ying Guo</i>  |     |
| <b>Single-channel Speech Separation Based on NLMSE Quasi-KLT bases</b> .....   | 320 |
| <i>Haiyan Guo, Zhen Yang, Weiping Zhu</i>  |     |
| <b>Optimization of Temporal Decomposition Model with Level Promotion</b> .....   | 325 |
| <i>Yibin Tang, Minglei Shan, Qingbang Han</i>  |     |
| <b>Resource Allocation Technique for Downlink Beamformed Cognitive Radio Network</b> .....   | 329 |
| <i>Kishore B. Chandrababu, Abdel-Hamid Soliman, Mohammad Patwary</i>   |     |
| <b>An Access Control Algorithm in Cognitive Radio System</b> .....   | 334 |
| <i>Guobin Zhang, Suili Feng</i>  |     |
| <b>Inter-piconet Interference Mitigation Schemes for Converged BTLE and Cellular Network</b> .....   | 339 |
| <i>Ying Hu, Guizhu Wang, Lianhai Shan, Zhi Yuan, Yuling Ouyang</i>   |     |
| <b>A Game based Routing algorithm for Congestion Control of Multimedia Transmission in VANETs</b> .....  | 344 |
| <i>Wu Di, Zhang Dongxia, Limin Sun, Jiangchuan Liu, Li Juanjuan</i>  |     |
| <b>Low SNR Capacity of Multi-Base Station Cooperative Transmission</b> .....   | 350 |
| <i>Jun Zhang, Bin Jiang, Shi Jin, Xiqi Gao</i>   |     |
| <b>K-cluster Based Reconstruction for Compressive Sensing</b> .....  | 355 |
| <i>Mai Xu, Jianhua Lu</i>  |     |
| <b>Phase Noise Mitigation in High Frequency Band SC-MIMO Systems</b> .....   | 360 |
| <i>Hui Xie, Lin Gui, Jian Xiong</i>  |     |
| <b>Rician K-factor analysis of In-Cabin Distributed MIMO System Measurements</b> .....   | 365 |
| <i>Yuejian Zhou, Chunhui Zhou, Yan Zhang, Limin Xiao, Lianfen Huang, Shidong Zhou</i>  |     |
| <b>From Reconfigurable SDR to Cognitive Femto-Cell: A Practical Platform</b> .....   | 369 |
| <i>Le Zhao, Shiyang Chen, Xiaoying Gan</i>   |     |
| <b>Detect and Autofocus the Moving Target by Its Range Walk in Time Domain</b> .....   | 375 |
| <i>Li Yake, Wang Yanfei, Liu Chang</i>   |     |
| <b>Cooperative ARQ in Wireless Sensor Networks: Outage Behavior and Throughput Efficiency</b> .....  | 380 |
| <i>Hualiang Chen, Yueming Cai, Weiwei Yang</i>   |     |
| <b>Outage Probability Constrained Robust Downlink Collaborative Beamforming</b> .....  | 385 |
| <i>Dong Zheng, Ju Liu, He Chen , Hongji Xu, Lina Zheng</i>   |     |
| <b>Joint Design of Physical Layer Network Coding and Channel Decoding Based on Trellis Coded Modulation in Two-way Relay Channel</b> .....                             | 390 |
| <i>Zhi-Cheng Chen, Bao-Yu Zheng, Xiao-Dong Ji, Wei-Liang Zhang</i>   |     |
| <b>Improving Energy-Efficiency in Building Automation with Event-Driven Radio</b> .....  | 395 |
| <i>Yan Zhang, Arjan Breeschoten, Xiongchuan Huang, Nauman Kiyani, Ao Ba, Pieter Harpe, Koji Imamura, Ruben De Francisco, Valer Pop, Guido Dolmans, Harmke De Groot</i> |     |

|   |     |
|---|-----|
| <b>Downlink Performance Analysis of Distributed Antenna Systems</b> .....   | 400 |
| <i>Yuxi Liu, Ju Liu, Weidong Guo, He Chen, Dong Zheng, Guowei Zhang</i>   |     |
| <b>Performance Analysis of Selection Decode-and- Forward Relay Networks in Generalized Fading Channels</b> .....                      | 405 |
| <i>Kaihua Wang, Chunxiao Cai, Yueming Cai</i>   |     |
| <b>User cooperation Communication Based on Cognitive Radio in DAS</b> .....   | 411 |
| <i>Liping Huang, Dongming Wang, Xiangyang Wang</i>  |     |
| <b>Multiuser Power Allocation for OFDM-Based Cognitive Radio Network</b> .....  | 416 |
| <i>Lili Wang, Wenjun Xu, Kai Niu, Zhiqiang He, Jiaru Lin, Baoyu Tian</i>  |     |
| <b>A 0.18<math>\mu</math>m CMOS Up-Conversion Mixer for Wireless Sensor Networks Application</b> .....                                | 420 |
| <i>Wu Chenjian, Li Zhiqun</i>   |     |
| <b>A Low-Complexity Adaptive Transmission Scheme Based on the Dual-Codebook of 3GPP LTE-Advanced</b> .....                            | 424 |
| <i>Minxia Hu, Shi Jin, Xiqi Gao</i>   |     |
| <b>A Correlated-Equilibrium-based Subcarrier Allocation Scheme for Interference Minimization in Multi-cell OFDMA Systems</b> .....    | 429 |
| <i>Jianchao Zheng, Yueming Cai, Dan Wu</i>  |     |
| <b>A Novel CQI Calculation Scheme in LTE/LTE-A Systems</b> .....  | 435 |
| <i>Xi Chen, Haiké Yi, Hanwen Luo, Hui Yu, Hailong Wang</i>  |     |
| <b>Joint Optimization on Load Balancing and Network Load in 3GPP LTE Multi-cell Networks</b> .....                                    | 440 |
| <i>Zhihang Li, Hao Wang, Zhiwen Pan, Nan Liu, Xiaohu You</i>  |     |
| <b>A Distributed Network Selection Mechanism for WCDMA/OFDMA Heterogeneous Networks</b> .....   | 445 |
| <i>Li Ning, Xu Wenjun, Lin Jiaru</i>  |     |
| <b>Outage Probability of Two-Way Amplify-and-Forward Relaying System with Interference-Limited Relay</b> .....                        | 450 |
| <i>Junchao Shen, Nan Sha, Yuemin Cai, Chunxiao Cai, Weiwei Yang</i>   |     |
| <b>Joint MMSE Precoding Design in Multi-user Two-Way MIMO Relay Systems</b> .....   | 455 |
| <i>Haiké Yi, Jun Zou, Hanwen Luo, Hui Yu, Jipeng Ma</i>   |     |
| <b>Improved SAI Method using Non-local Spatial Constraint for Image Interpolation</b> .....   | 460 |
| <i>Jueping Bian, Zongliang Gan, Mengcheng Zhang, Xiuchang Zhu</i>   |     |
| <b>A Joint Design of Code and Training Sequence for Frequency-Selective Block Fading Channels with Partial CSI</b> .....              | 464 |
| <i>Po-Ning Chen, Chia-Lung Wu, Mikael Skoglund</i>  |     |
| <b>An Adaptive Image Denoising Method for Mixture Gaussian Noise</b> .....  | 469 |
| <i>Yiwen Qiu, Zongliang Gan, Yaqiong Fan, Xiuchang Zhu</i>  |     |
| <b>Performance Analysis of Incremental Relaying Based on Partial Selection in Multi-Source Multi-Relay Networks</b> .....             | 474 |
| <i>Weidong Guo, Ju Liu, Yuxi Liu, Lina Zheng, Dong Zheng</i>  |     |
| <b>Physical Layer Abstraction Algorithm Based on RBIR for CDMA EVDO and WLAN</b> .....  | 480 |
| <i>Chao Meng, Hanqing Wang, Wei Heng, Jinbao Zhang</i>  |     |
| <b>Design of LDPC Code Strategy for Orthogonal Modulation</b> .....   | 484 |
| <i>Haiyang Hu, Yukui Pei, Ning Ge</i>   |     |
| <b>Estimability of Quantized Linear Systems</b> .....   | 489 |
| <i>Ying Shen, Hui Zhang</i>   |     |
| <b>An Improved Spectral Subtraction Speech Enhancement Algorithm under Non-stationary Noise</b> .....                                 | 495 |
| <i>Lu-Ying Sui, Xiong-Wei Zhang, Jian-Jun Huang, Bin Zhou</i>   |     |
| <b>Weakness in 802.11w and an Improved Mechanism on Protection of Management Frame</b> .....  | 500 |
| <i>Weijia Wang, Haihang Wang</i>  |     |
| <b>A High-throughput Reconfigurable Viterbi Decoder</b> .....   | 504 |
| <i>Rongchun Li, Yong Dou, Jie Zhou, Guoqing Lei</i>   |     |
| <b>Augment Delay Tolerant Networking Routing to Extend Wireless Network Coverage</b> .....  | 510 |
| <i>Haibo Mei, Peng Jiang, John Bigham</i>   |     |
| <b>Pilot Tone Selection in OFDM Amplified-and-forward Relay System</b> .....  | 515 |
| <i>Linfeng An, Ming Chen, Bingyang Wu</i>   |     |
| <b>Outage Performance Analysis and Optimal Power Allocation of Opportunistic Cooperation Communications without Direct-Link</b> ..... | 520 |
| <i>Chen Xiaojie, Xu Youyun, Zhang Dongmei</i>   |     |
| <b>Outage Performance Analysis for Cooperative Networks with Randomly Distributed Nodes</b> .....                                     | 524 |
| <i>Haichuan Ding, Shuo Li, Chengwen Xing, Zesong Fei</i>  |     |
| <b>A Smart Tracking-based Jamming Scheme for Signals with Periodic Synchronization Sequences</b> .....                                | 529 |
| <i>Yuan Chen, Fei He, Jian Yan, Xiang Chen, Yuantao Gu</i>  |     |

|   |            |
|---|------------|
| <b>Source Analysis and Separation Using Spatial Filtering and Time Frequency Distribution in Array Signal Processing Under Complicated Environments .....</b> | <b>534</b> |
| <i>Liu Wen-Yan, Huang Xiao-Tao, Jin Tong</i>  |            |
| <b>An Efficient CFO Estimation Algorithm for the Downlink of 3GPP-LTE .....</b>   | <b>539</b> |
| <i>Feng Wang, Yu Zhu</i>  |            |
| <b>Outage Probability for the Random Network Coded Cooperative Wireless Networks.....</b>   | <b>545</b> |
| <i>Mei Zhonghui, Yang Zhen</i>  |            |
| <b>Finite-Difference Frequency-Domain Analysis of Wave Propagation in 2-D Frequency-Dependent Periodic Structures .....</b>                                   | <b>550</b> |
| <i>Amin Gul Hanif, Toru Uno , Takuji Arima</i>  |            |
| <b>Performance Analysis of Adaptive Modulation System over Mobile Satellite Channels.....</b>   | <b>554</b> |
| <i>Zhao Junhui, Shengchun Guan, Yi Gong</i>   |            |
| <b>A Capacity-Aware Cross-Layer QoS Optimization Scheme for Wireless Multimedia Networks .....</b>  | <b>558</b> |
| <i>Hai-Tao Zhao, Rui Zhang, Rong-Fang Song, Hui Zhang, Yu-Ning Dong, Feng Tian</i>  |            |
| <b>Robust Linear Transceiver Design for Multi-Hop Non-Regenerative MIMO Relaying Systems.....</b>   | <b>563</b> |
| <i>Chengwen Xing, Zesong Fei, Shaodan Ma, Jingming Kuang, Yik-Chung Wu</i>  |            |
| <b>A Cross-layer Protocol of Wireless Sensor Networks for Tailings Reservoir On-line Monitoring .....</b>   | <b>568</b> |
| <i>Feng Jin, Da Zhang, Ligang Wang</i>  |            |
| <b>A MDCT-based Click Noise Reduction Method for MPEG-4 AAC Codec .....</b>   | <b>574</b> |
| <i>Hao Chen, Changchun Bao, Feng Deng, Dawei Zhang, Maoshen Jia</i>   |            |
| <b>A Novel Hiss Noise Reduction Method for Audio Signals Based on MDCT .....</b>  | <b>579</b> |
| <i>Feng Deng, Chang-Chun Bao, Bing-Yin Xia, Yan Liang</i>   |            |
| <b>A Decentralized Downlink Dynamic ICIC Method for Multi-cell OFDMA System.....</b>  | <b>584</b> |
| <i>Shujun Wang, Yuan Zhang, Guangguo Bi</i>   |            |
| <b>High-speed LMS Equalizer for Spread Spectrum System Based on FPGA .....</b>  | <b>589</b> |
| <i>Bingchao Liu, Li Fang, Daoben Li</i>   |            |
| <b>RF Link Budget Analysis in Urban Propagation Microcell Environment for Mobile Radio Communication Systems Link Planning.....</b>                           | <b>592</b> |
| <i>Ardavan Rahimian, Farhad Mehran</i>  |            |
| <b>On the Capacity Region of the Semi-deterministic Z Channel .....</b>   | <b>597</b> |
| <i>Wuling Liu, Nan Liu, Zhiwen Pan</i>  |            |
| <b>Analysis of Cognitive Radio Spectrum Access for Emergency Communication System .....</b>   | <b>602</b> |
| <i>Peng Han, Hua Tian, Wei Xie</i>  |            |
| <b>Autocorrelation Based Detection of DSSS Signal for Cognitive Radio System .....</b>  | <b>608</b> |
| <i>Zhipeng Deng, Lianfeng Shen, Nan Bao, Bailong Su, Jintao Lin, Dayang Wang</i>  |            |
| <b>A Novel Channel Estimation Method for TD-HSPA+ System in Rapidly Time-Varying Environments.....</b>  | <b>613</b> |
| <i>Qiang Gu, Xiaodong Xu</i>  |            |
| <b>Joint Power Control and Beamforming for Peer-to-Peer MIMO Relay Systems .....</b>  | <b>617</b> |
| <i>Muhammad R. A. Khandaker, Yue Rong</i>   |            |
| <b>Voice Conversion Based on Style and Content Separation with Dual Latent Variable Model .....</b>   | <b>623</b> |
| <i>Xinjian Sun, Xiongwei Zhang, Jian Sun</i>  |            |
| <b>Source and Relay Matrices Optimization for Multiuser Multi-Hop MIMO Relay Systems .....</b>  | <b>628</b> |
| <i>Yue Rong</i>   |            |
| <b>An Efficient Algorithm for TDOA/FDOA Estimation Based on Approximate Coherent Accumulative of Short-Time CAF .....</b>                                     | <b>634</b> |
| <i>Wei Zhang, Gengxin Zhang</i>   |            |
| <b>Performance Evaluation of Limited Feedback Transmit Precoding via Phase Rotation in Correlated MIMO Channel.....</b>                                       | <b>638</b> |
| <i>Sho Furuichi, Kenta Umebayashi, Yasuo Suzuki</i>   |            |
| <b>Amplify-and-Forward Strategy with Limited Feedback in Two-Way Relay Channels.....</b>  | <b>643</b> |
| <i>Selami Sahin, Umit Ayyolu</i>  |            |
| <b>On Quasi-Orthogonal Space-Time Block Codes for Dual-Polarized MIMO Channels.....</b>   | <b>648</b> |
| <i>Yabo Li, Zhike Huang, Haiquan Wang, Xiang-Gen Xia</i>  |            |
| <b>Differential Six-port Modulator .....</b>  | <b>653</b> |
| <i>Owais, Joakim Östh, Shaofang Gong</i>  |            |
| <b>Joint Design of LDPC and Physical-Layer Network Coding for Bi-directional Relay System in the Presence of Insufficient Timing Synchronization.....</b>     | <b>657</b> |
| <i>Wenwen Liang, Kui Xu, Hua Tian, Youyun Xu</i>  |            |
| <b>Multiple Symbol Differential Detection of MPSK with Cooperative Diversity Reception .....</b>  | <b>662</b> |
| <i>Yajun Zhang, Yuanyuan Gao, Shibin Su, Guozhen Zang</i>   |            |

|  |            |
|--|------------|
| <b>A Two-stage-game-based Power Control Scheme for OFDMA-relay Channels under Physical Layer Security Requirement.....</b>         | <b>667</b> |
| <i>Zhao Hou, Dan Wu, Yueming Cai</i>   |            |
| <b>DOA Estimation With Low Complexity Based on Adaptive Algorithm in Direct Data Domain.....</b>                                   | <b>673</b> |
| <i>Xiao-Dong Yuan, Jian-Wei Wan, Zhu Cheng, Ke Xu, Bin-Bin Shi</i>   |            |
| <b>Effect of Phase Control Based PAPR Reduction in MIMO Adaptive Modulated Vector Coding Systems.....</b>                          | <b>677</b> |
| <i>Osamu Muta</i>  |            |
| <b>Overall Outage Probability of Two-Way Amplify-and- Forward Relaying in Nakagami-m Fading Channels.....</b>                      | <b>682</b> |
| <i>Xiaoming Xu, Yueming Cai, Chunxiao Cai, Wendong Yang</i>  |            |
| <b>Structural Similarity Optimal MB Layer Rate Control for H.264.....</b>  | <b>686</b> |
| <i>Ziguan Cui, Zongliang Gan, Xiuchang Zhu</i>   |            |
| <b>Compressed MIMO Channel Estimation and Efficient Pilot Pattern over Doppler Sparse Environment.....</b>                         | <b>691</b> |
| <i>Dongmei Wang, Xiaoyun Hou</i>   |            |
| <b>A Novel Resource Allocation Algorithm in Uplink Multi-cell OFDMA Networks Based on Game Theory.....</b>                         | <b>696</b> |
| <i>An Wang, Yueming Cai, Zhao Hou</i>  |            |
| <b>Performance Analysis of Relay Selection for Two- Way Cooperative Relay Networks.....</b>  | <b>700</b> |
| <i>Baofeng Ji, Kang Song, Yongming Huang, Luxi Yang</i>  |            |
| <b>A Differential Successive Multiuser Ranging Detection for OFDMA Systems.....</b>  | <b>705</b> |
| <i>Chieh-Lung Lin, Szu-Lin Su</i>  |            |
| <b>Gaussian Two-hop Relay Channel with Linear Relaying.....</b>  | <b>710</b> |
| <i>Zhixiang Deng, Bao-Yun Wang, Fei Lang, Yayan Ma</i>   |            |
| <b>An Asymmetric Scan Time Synchronization Algorithm for TDMA Directional Antennas Networks.....</b>                               | <b>714</b> |
| <i>Maoqiang Zuo, Wenfeng Ma, Youyun Xu, Mo Li</i>  |            |
| <b>Two-way Relay Channel Estimation Based on Compressive Sensing.....</b>  | <b>719</b> |
| <i>Wenwen Yuan, Baoyu Zheng, Wenjing Yue, Lei Wang</i>   |            |
| <b>Improved Interleaving Scheme for DVB-S2 BICM System.....</b>  | <b>724</b> |
| <i>Kangming Jiang , Ying Wang</i>  |            |
| <b>A New IVC Based on Ad Hoc and its Design Simulations.....</b>   | <b>729</b> |
| <i>Guo Chen, Huang Xuejun, Hongbo Zhu</i>  |            |
| <b>Code Aided CPO Estimation Based on Particle Filtering.....</b>  | <b>733</b> |
| <i>Chen Peng, He Zhiqiang, Tian Baoyu</i>  |            |
| <b>Performance Analysis of Two-way Relay Systems Based on Partial Channel State Information.....</b>                               | <b>738</b> |
| <i>Rui Zhao, Canhui Cai, Yongming Huang</i>  |            |
| <b>A Dual Input-channel Software Defined Receiver Platform for GSM WCDMA and Wi-Fi.....</b>  | <b>743</b> |
| <i>Yang Zhong, Fredrik Tufvesson</i>   |            |
| <b>A Novel Adaptive Multi-beam GNSS Antiinterference Processing System.....</b>  | <b>747</b> |
| <i>Xiao-Dong Yuan, Jian-Wei Wan, Zhu Cheng, Bin-Bin Shi, Hao Fu</i>  |            |
| <b>An Energy-efficient Cooperative MAC Protocol with Piggybacking for Wireless Sensor Networks.....</b>                            | <b>751</b> |
| <i>Xurong Pi, Yueming Cai, Guoliang Yao</i>  |            |
| <b>Cauchy-Rayleigh Scattering Cluster Based Spatial-Temporal-Spectral Correlation Properties with MIMO-OFDM Channel Model.....</b> | <b>756</b> |
| <i>Xin Li, Torbjorn Ekman</i>  |            |
| <b>Maximum-minimum Eigenvalue Detection-based Method to Mitigate the Effect of the PUEA in Cognitive Radio Networks.....</b>       | <b>761</b> |
| <i>Fayu Liu, Huifang Chen, Lei Xie, Kuang Wang</i>   |            |
| <b>Designing an Energy Efficient Prediction-based Algorithm for Target Tracking in Wireless Sensor Networks.....</b>               | <b>766</b> |
| <i>Fatemeh Deldar, Mohammad Hossien Yaghmaee</i>   |            |
| <b>Robust Super-Resolution Reconstruction based on Adaptive Regularization.....</b>  | <b>772</b> |
| <i>Fang Suo, Fangyu Hu, Gao Zhu</i>  |            |
| <b>Performance Analysis of Distributed Space-Time Coded Cooperative Multicast.....</b>   | <b>776</b> |
| <i>Hui Tian, Wei Xie, Youyun Xu, Lianguo Wu, Maoqiang Zuo</i>  |            |
| <b>Quadrature Compressive Sampling for Radar Echo Signals.....</b>   | <b>782</b> |
| <i>Feng Xi, Shengyao Chen, Zhong Liu</i>   |            |
| <b>A Camera Self-Calibration Method Based on Dual Constraints of Multi-View Images.....</b>  | <b>787</b> |
| <i>Feng Liu, Weiwei Han, Qiong Xu, Qiongjie Lin, Jingjing Fan</i>  |            |
| <b>Joint LDPC and Physical Network Coding with Power Allocation for Two Way Wireless Relaying.....</b>                             | <b>792</b> |
| <i>Kui Xu, Youyun Xu, Wenwen Liang, Dongmei Zhang, Zhenxing Lv</i>   |            |

|  |     |
|--|-----|
| <b>Cooperative Scheme Using STNC for Uplink SCFDMA and Downlink OFDMA System</b> .....   | 797 |
| <i>Xiaochen Xia, Lianguo Wu, Youyun Xu, Kui Xu</i>   |     |
| <b>Designs and Performance Analysis on ML-decoders in a Two User's Interference Channel</b> .....  | 803 |
| <i>Haiquan Wang, Zhijin Zhao</i>   |     |
| <b>Unequal Error Protected JPEG 2000 Broadcast Scheme with Progressive Fountain Codes</b> .....  | 809 |
| <i>Zhao Chen, Mai Xu, Luiguo Yin, Jianhua Lu</i>   |     |
| <b>Analysis of Cell Spectral Efficiency of Infrastructure Relay-Enhanced Cellular System</b> .....   | 814 |
| <i>Lei Zhang, Hong-Chuan Yang, Mazen O. Hasna</i>  |     |
| <b>A Novel Energy Saving Strategy for LTE Hetnet</b> .....   | 820 |
| <i>Chengzhe Liu, Zhiwen Pan, Nan Liu, Xiaohu You</i>   |     |
| <b>A Feedback Rate Control Game using Sequential Second Price Auction for Channel State Information and Inter-cell Interference in Wireless Networks</b> ..... | 824 |
| <i>Tianyu Wang, Lingyang Song, Zhu Han, Zhongshan Zhang, Bingli Jiao</i>   |     |
| <b>Channel Assignment and Routing with Overhead Reduction for Cognitive Radio-Based Wireless Mesh Networks</b> .....   | 829 |
| <i>Dong Heon Lee, Wha Sook Jeon</i>  |     |
| <b>A Robust Multi-user Detection Algorithm Under Fading Channel</b> .....  | 834 |
| <i>Zhang Yongjian, Wang Dongyu, Kang Yanmei</i>  |     |
| <b>Impact of Channel Estimation Errors in Amplify-and forward Two-way Relaying System</b> .....  | 839 |
| <i>Zhuo Chen, Yueming Cai, Lei Wang, Nan Sha</i>   |     |
| <b>A Cross-band Cooperation Architecture for Spectrum Efficiency Improvement</b> .....   | 844 |
| <i>Yi Li, Yifei Zhao, Shidong Zhou, Yuan Gao, Xiang Chen, Chunhui Zhou</i>   |     |
| <b>On the Number of Relays for Orthogonalize-and-Forward Relaying</b> .....  | 850 |
| <i>Yue Yang, Xudong Wang, Xiaodong Cai</i>   |     |
| <b>Energy-Efficient Resource Allocation in Multi-user OFDMA Systems</b> .....  | 855 |
| <i>Ying Hu, Yongming Huang, Luxi Yang, Jianhua Zhou</i>  |     |
| <b>Map Updation using Image Registration for Different Sensors by Camera Calibration</b> .....   | 860 |
| <i>Prakash Duraisamy, Stephen Jackson, Kamesh Namuduri, Bill Buckles, Ye Yu</i>  |     |
| <b>Target Tracking with Size Estimation in Wireless Sensor Networks</b> .....  | 865 |
| <i>Jie Wang, Peng Cheng, Jiming Chen, Youxian Sun, Xuemin Shen</i>   |     |
| <b>A Constellation Extension Based SLM Scheme for PAPR Reduction of OFDM Signals</b> .....   | 870 |
| <i>Jingru Zhou, Xiaodong Xu, Xuchu Dai</i>   |     |
| <b>Physical Layer Network Coding Based on Dual Relay Selection In Two-Way Relay Channel</b> .....  | 875 |
| <i>Lianju Wu, Xiaoyun Hou</i>  |     |
| <b>Understanding the Indoor Interference between IEEE 802.15.4 and IEEE 802.11b/g via Measurements</b> .....   | 881 |
| <i>Yanchao Mao, Zenghua Zhao, Xin Jia</i>  |     |
| <b>Hierarchical Heterogeneous Wireless Sensor Network Management System</b> .....  | 886 |
| <i>Junjiao Ye, Zenghua Zhao, Hao Li, Hao Chen</i>  |     |
| <b>Fault Tolerant Routing in Three-dimensional Underwater Acoustic Sensor Networks</b> .....   | 891 |
| <i>Ming Xu, Guangzhong Liu</i>   |     |
| <b>A Unified Mathematical Model for Spatial Scrambling Based Secure Wireless Transmission and Its Wiretap Method</b> .....                                     | 896 |
| <i>Feilong Wu, Wenjie Wang, Hui-Ming Wang, Qinye Yin</i>   |     |
| <b>Terrestrial Mobile Networks for Air-to-Ground Communications of the General Aviation</b> .....  | 901 |
| <i>Chao Zhang</i>  |     |
| <b>Enhanced Dynamic Spectrum Sharing for Multi-Cell Heterogeneous Networks</b> .....   | 906 |
| <i>Meng Li, Junlong Li, Wei Gao, Na Li, Zesong Fei And Jingming Kuang</i>  |     |
| <b>A Spanning Routing Tree Protocol Based on State Diffusion for Mobile Sensor Networks</b> .....  | 911 |
| <i>Wei Xing, Kuntai Li, Yongchao Wang, Wen Zhou</i>  |     |
| <b>A Simple Downlink Diversity Transmit Scheme for Cooperative Base Stations</b> .....   | 916 |
| <i>Min Lin, Jian Ouyang, Yingtao Niu</i>   |     |
| <b>A Joint Design of Transmit Antenna Selection and Multiuser Scheduling for Multiuser MIMO systems Employing Block Diagonalization Precoding Scheme</b> ..... | 921 |
| <i>Feng Wang, Marek E. Bialkowski</i>  |     |
| <b>3D Head Pose Estimation Using the Kinect</b> .....  | 926 |
| <i>Farid Abedan Kondori, Shahrouz Yousefi, Haibo Li, Samuel Sonning, Sabina Sonning</i>  |     |
| <b>A New Method For Detecting Fatigue Driving with Camera Based on OpenCV</b> .....  | 930 |
| <i>Xing Li, Guang Han, Guangteng Ma, Yanshan Chen</i>  |     |
| <b>The Principle and Simulation of Magnetic Coupling for Rectangular Coil in Mobile Payment System</b> .....   | 935 |
| <i>Yejun He, Xiaorong Tang, Jie Yang And Jiefeng Ao</i>  |     |



|  |      |
|--|------|
| <b>Direction-of-Arrival Estimation Based on Modified Bayesian Compressive Sensing Method</b> .....   | 940  |
| <i>Sun Lei, Wang Huali</i>   |      |
| <b>On the Periodic Scheduling of Spectrum Sensing for Cognitive Radio</b> .....  | 944  |
| <i>Renhui Xu, Ming Chen, Chang Tian, Xuming Lu, Chunjuan Diao</i>  |      |
| <b>Statistical Distributions of OFDM Signals on Multi-Path Fading Channel</b> .....  | 950  |
| <i>Renhui Xu, Ming Chen, Chang Tian, Xuming Lu, Chunjuan Diao</i>  |      |
| <b>Relative Navigation using Pulsar Signals</b> .....  | 956  |
| <i>Hua Zhang, Luping Xu, Woheng Li</i>   |      |
| <b>Adaptive Analog-to-Information Converter with Limited Random Sequence Modulation</b> .....  | 961  |
| <i>Chao Zhang, Zhipeng Wu, Jialuo Xiao</i>   |      |
| <b>A Carrier Frequency Offset Estimation Algorithm for OFDM Systems</b> .....  | 966  |
| <i>Pengcheng Zhu</i>   |      |
| <b>A Zero-watermarking Image Authentication Scheme Using Zernike Moment and Extreme Learning Machine</b> .....   | 971  |
| <i>Guangyong Gao, Guoping Jiang</i>  |      |
| <b>Improved Belief Propagation Based on RGB Vector Measure for Stereo Matching</b> .....   | 976  |
| <i>Yingnan Geng, Yan Zhao, Hexin Chen</i>  |      |
| <b>The Investigation of Mapping schemes for LDPC-Coded Modulated Systems</b> .....   | 981  |
| <i>Ying Wang, Kangming Jiang</i>   |      |
| <b>Security Game between Source and Friendly Relay</b> .....   | 987  |
| <i>Zhang Maorui, Wang Bao-Yun</i>  |      |
| <b>A Clustering Routing Algorithm of WSN based on Uneven Nodes Deployment</b> .....  | 993  |
| <i>Yan Gu, Yucheng Shao, Han Han, Tong Yi</i>  |      |
| <b>Design and ASIC Implementation of an IR-UWB-Baseband Transceiver for IEEE 802.15.4a</b> .....   | 999  |
| <i>Dan Kreiser, Sonom Olonbayar</i>  |      |
| <b>Achievable Secrecy Rate of the Relay-Eavesdropper Channel with Generalized Feedback</b> .....   | 1005 |
| <i>Ma Yayan, Bao Jing, Zhao Junxi, Wang Bao-Yun</i>  |      |
| <b>Price of Anarchy of Congestion Games with Player-Specific Constants</b> .....   | 1009 |
| <i>Lok Man Law, Jianwei Huang, Mingyan Liu</i>   |      |
| <b>Capacity of Cognitive Radio under Outage Constraint with Partial Channel Knowledge</b> .....  | 1014 |
| <i>Yang Liu, Ding Xu, Zhiyong Feng, Qian Li, Ping Zhang</i>  |      |
| <b>Optimized Adaptive Multi Lane Technique For LTE Radio Access VoIP</b> .....   | 1019 |
| <i>Onsy Abdel Alim, Shawky Shaaban, Mohamed Nadder Hamdy</i>   |      |
| <b>Chernoff Upper Bound of PEP for Distributed Space-Time Coding Relay Systems in Nakagami-m Fading Channels</b> .....                                     | 1023 |
| <i>Nan Wang, Ming Chen, Wence Zhang, Xiaoli Chu</i>  |      |
| <b>Hybrid Forward Scheme with Generalized Selective Combining</b> .....  | 1026 |
| <i>Qiang Huo, Tianxi Liu, Lingyang Song, Bingli Jiao</i>   |      |
| <b>Investigation on Transmit and Receiver Diversity Gains Considering Channel Estimation Error for Uplink DFT-Precoded OFDMA</b> .....                     | 1031 |
| <i>Lianjun Deng, Teruo Kawamura, Hidekazu Taoka, Mamoru Sawahashi</i>  |      |
| <b>Throughput Comparisons of Star 32/64 QAM Schemes Based on Mutual Information Considering Cubic Metric</b> .....   | 1036 |
| <i>Reo Kobayashi, Teruo Kawamura, Nobuhiko Miki, Mamoru Sawahashi</i>  |      |
| <b>CDM Based Reference Signal Structure Using Oversampling for OFDM Downlink</b> .....   | 1041 |
| <i>Masahiro Tabata, Teruo Kawamura, Hidekazu Taoka, Mamoru Sawahashi</i>   |      |
| <b>Hybrid Reference Signal Multiplexing Using Combination of Block Spread and Cyclic Shift CDMA for Uplink Control Signals in DFT-Precoded OFDMA</b> ..... | 1046 |
| <i>Yuichiro Hikosaka, Teruo Kawamura, Nobuhiko Miki, Mamoru Sawahashi</i>  |      |
| <b>A Node Grouping Algorithm for Joint Relay Selection and Resource Allocation in Cooperative Cognitive Radio Networks</b> .....                           | 1051 |
| <i>Chuan Ma, Guanding Yu, Jietao Zhang</i>   |      |
| <b>Reasoning Through Fuzzy Logical for Reconfiguration in Cognitive Radio Network</b> .....  | 1056 |
| <i>Qian He, Zhiyong Feng, Ping Zhang</i>   |      |
| <b>Channel Estimation and Adaptive Transmission in Variable Symbol Rate Systems</b> .....  | 1061 |
| <i>Wang Jingning, Wang Dongliang, Zhang Hang</i>   |      |
| <b>Opportunistic Relaying for Two-Way Relay Transmission with Analog Network Coding</b> .....  | 1065 |
| <i>Xiaodong Ji, Baoyu Zheng, Lei Wang, Xing Gao</i>  |      |
| <b>Chinese Dialect Identification Based on Gender Classification</b> .....   | 1070 |
| <i>Wang Xia, Gu Mingliang, Gao Yuan, Ma Yong</i>   |      |
| <b>Diversity and Multiplexing Tradeoff in the Uplink of Cellular Systems with Linear MMSE Receiver</b> .....   | 1075 |
| <i>Xiaoshi Song, Changchuan Yin, Danpu Liu</i>   |      |

|   |      |
|---|------|
| <b>A QoS constrained cognitive routing algorithm for ad hoc networks based on directional antenna</b> .....                           | 1080 |
| <i>Ping Feng, Yongfei Ding, Bo Liu, Jianmin Wu, Lin Gui, Haibo Zhou</i>   |      |
| <b>A Self-Awareness Routing Scheme with Power Control for Underlay Spectrum Sharing Networks</b> .....                                | 1085 |
| <i>Yongfei Ding, Jianmin Wu, Haibo Zhou, Ping Feng, Bo Liu, Lin Gui</i>   |      |
| <b>Non-orthogonal Pilot Design and Analysis for CoMP Systems</b> .....  | 1090 |
| <i>Zhang Xiujun, Chen Xiang, Zhou Shidong, Wang Jing</i>  |      |
| <b>The Achievable Secrecy Rate of MISO Wiretap Channels</b> .....   | 1095 |
| <i>Zhang Haiyang, Wang Bao-Yun</i>  |      |
| <b>Flaw Classification in Ultrasonic Guided Waves Signal Using Wavelet Transform and PNN Classifier</b> .....                         | 1099 |
| <i>Xiaohui Zhang, Guangmin Sun, Haomiao Liu, Qite Wang</i>  |      |
| <b>Vehicle Color Recognition Using Monocular Camera</b> .....   | 1104 |
| <i>Mengjie Yang, Guang Han, Xiaofei Li, Xiuchang Zhu, Liang Li</i>  |      |
| <b>Investigation on Best Combining Scheme for Diversity Branches in Joint MLD for PUCCH in LTE Uplink</b> .....                       | 1109 |
| <i>Hideyuki Numata, Teruo Kawamura, Mamoru Sawahashi</i>  |      |
| <b>Connectivity Guaranteed Cluster Header Selection Scheme Based on Spectra Analysis of Graph</b> .....                               | 1114 |
| <i>Fenglin Xie, Zhiyong Feng, Zhiqing Wei</i>   |      |
| <b>Improved Iteration Strategy of Game-based Channel Allocation Method for Cognitive Wireless Network</b> .....                       | 1119 |
| <i>Jun Liu, Xiufeng Xie</i>   |      |
| <b>Transient-Based Identification of 802.11b Wireless Device</b> .....  | 1125 |
| <i>Zhiyuan Shi, Man Liu, Lianfen Huang</i>  |      |
| <b>A New Robust Beamforming Method Against Signal Steering Vector Errors and Moving Jammers</b> .....                                 | 1130 |
| <i>Wei Guo, Pengcheng Mu, Qinye Yin, Wenjie Wang</i>  |      |
| <b>Distributed Power Control with Limited Message Passing for Nonconcave Utility Maximization</b> .....                               | 1135 |
| <i>Li Ping Qian, Ying Jun Zhang</i>   |      |
| <b>Synchronization Acquisition Threshold Based on Peak-To-Average Ratio of Correlation Energy for UWB Communications</b> .....        | 1140 |
| <i>Chen Li, Yukui Pei, Ning Ge</i>  |      |
| <b>A Comparison of Image Registration Techniques for Joining Sequential Images</b> .....  | 1144 |
| <i>P. Duraisamy, S. Jackson, K. Namuduri, B. Buckles, Ye Yu</i>   |      |
| <b>Utilizing Weighted Rating of Multiple Attributes Scheme to Enhance Handoff Efficiency in Heterogeneous Wireless Networks</b> ..... | 1150 |
| <i>Shin-Jer Yang, Wen-Chieh Tseng</i>   |      |
| <b>Soft Input Channel Estimation for Two-Way Cooperative-OFDM</b> .....   | 1156 |
| <i>Wei Wu, Xin Jia, Yueming Cai, Huachao Hu</i>   |      |
| <b>40Gbps Multi-Connection TCP/IP Offload Engine</b> .....  | 1161 |
| <i>Yong Ji, Qing-Sheng Hu</i>   |      |
| <b>Resources Allocation in Mobile Communications on Aircraft</b> .....  | 1166 |
| <i>Chao Zhang, Keke Pang</i>  |      |
| <b>Joint Access and Power Control in Cognitive Femtocell Networks</b> .....   | 1172 |
| <i>Qian Li, Zhiyong Feng, Wei Li, Yang Liu, Ping Zhang</i>  |      |
| <b>Design of Indoor Optical Wireless Collaborative Cellular System</b> .....  | 1177 |
| <i>Chengcheng Pei, Debin Wu, Zaichen Zhang, Diecui Zhang</i>  |      |
| <b>Spectrum Sensing Using Non-asymptotic Behavior of Eigenvalues</b> .....  | 1183 |
| <i>Lei Wang, Baoyu Zheng, Jingwu Cui, Wenjing Yue</i>   |      |
| <b>Improvement of Ghost Imaging on Orbital Angular Momentum by Using JPEG &amp; Linear Block Codes</b> .....                          | 1188 |
| <i>Xiaoliang Dong, Fei Cao, Shengmei Zhao, Baoyu Zheng</i>  |      |
| <b>Spectrum Sensing in Opportunity-Heterogeneous Cognitive Radio Networks: Non-Cooperative Case</b> .....                             | 1192 |
| <i>Guoru Ding, Qihui Wu, Fei Song, Jinlong Wang</i>   |      |
| <b>Multicast or Broadcast in Multiuser OFDM Systems</b> .....   | 1197 |
| <i>Jose Saavedra, Pierre Duhamel</i>  |      |
| <b>Diversity Transmission and Channel Modeling of Mobile Communications on Aircraft</b> .....   | 1202 |
| <i>Chao Zhang, Junzhou Yu, Keke Pang</i>  |      |
| <b>Researches on Echo Kernels of Audio Digital Watermarking Technology Based on Echo Hiding</b> .....                                 | 1207 |
| <i>Xulai Cao, Linghua Zhang</i>   |      |
| <b>On File Delay Minimization for Content Uploading to Media Cloud via Collaborative Wireless Network</b> .....                       | 1212 |
| <i>Ge Zhang, Yonggang Wen, Jiang Zhu, Qinghua Chen</i>  |      |
| <b>Variable Bandwidth Spectrum Access for Secondary User in Cognitive Radio Networks</b> .....  | 1218 |
| <i>Fu Yu, Zhang Qinyu, Wang Ye, Guan Xin</i>  |      |

|   |      |
|---|------|
| <b>Coordinated Beamforming with Relaxed Zero Forcing (Invited Paper)</b> .....  | 1223 |
| <i>G. Lee, J. Park, Y. Sung, M. Yukawa</i>  |      |
| <b>A Mobile Health Monitoring Solution for Weight Control</b> .....   | 1228 |
| <i>Ivo M. Lopes, Bruno M. Silva, Joel J. P. C. Rodrigues, Jaime Lloret, Mario L. Proença</i>                                |      |
| <b>Source Localization with Acoustic Intensity Flux Matched-Field Processing</b> .....                                      | 1233 |
| <i>Wangsheng Lin, Guolong Liang, Yan Wang, Jianfei Ji</i>   |      |
| <b>A New Energy-Efficient Scheduling Scheme for Multiple Target Coverage in Wireless Sensor Networks</b> .....              | 1237 |
| <i>K B Amir, M. N A Shaon, M A Matin</i>  |      |
| <b>Graph-Based Spectrum Sharing for Multiuser OFDM Cognitive Radio Networks</b> .....                                       | 1241 |
| <i>Tao Qiu, Wenjun Xu, Zhiqiang He, Kai Niu, Baoyu Tian</i>   |      |
| <b>A New Uni-Scheduling Algorithm in S-MAC based Wireless Sensor Networks</b> .....   | 1246 |
| <i>D. Saha, M A Matin</i>   |      |
| <b>Capacity Analysis for Secondary User in Cognitive Radio Network</b> .....  | 1251 |
| <i>Wang Ye, Zhang Qinyu</i>   |      |
| <b>On Design of Asymmetric Interference Alignment and Cancellation Scheme in MIMO X Network</b> .....                       | 1257 |
| <i>Lu Yang, Wei Zhang</i>   |      |
| <b>A Predictive Deadbeat Control in Shunt Active Power Filter</b> .....   | 1262 |
| <i>Zhihua Bao, Zongchen Wang, Shibing Zhang</i>   |      |
| <b>An Improved Adaptive Channel Estimation Method for Multiuser Multiantenna OFDM Systems</b> .....                         | 1266 |
| <i>Yue-Xing Gao, Jie Yang, Qing-Min Meng, Wei-Ping Zhu</i>  |      |
| <b>Improved Compressed Sensing-based UWB Channel Estimation</b> .....   | 1271 |
| <i>Chunyu Jian, Xinrong Ye, Wei-Ping Zhu</i>  |      |
| <b>Design of Simplified Overlapped Code Division Multiplexing System</b> .....  | 1276 |
| <i>Peng Sun, Daoben Li, Li Fang</i>   |      |
| <b>A New Approach to Weighted Sum-Rate Maximization for the K-User Gaussian Interference Channel</b> .....                  | 1282 |
| <i>Liang Liu, Rui Zhang, Kee-Chaing Chua</i>  |      |
| <b>An Audio Watermarking of Wavelet Domain Based on BP Neural Network</b> .....   | 1287 |
| <i>Liang Chen, Huan Hao, Guohong Zheng</i>  |      |
| <b>Detecting Selective Forwarding attacks in WSNs using Watermark</b> .....   | 1292 |
| <i>Deng-Yin Zhang, Chao Xu, Lin Siyuan</i>  |      |
| <b>Multi-hop Relay Pairs Transmission Scheme Based on Fountain Code</b> .....   | 1296 |
| <i>Huifeng Liu, Weijia Lei, Xianzhong Xie</i>   |      |
| <b>A Chinese Speech Compensation Method for the Leakage Based on Generalized Sidelobe Canceller in Hearing aids</b> .....   | 1302 |
| <i>Hui Wang, Linghua Zhang</i>  |      |
| <b>A Digital Audio Watermarking Algorithm Based On Block Encoding</b> .....   | 1306 |
| <i>Linghua Zhang, Zhiyuan Huang, Xulai Cao</i>  |      |
| <b>Adaptive Feedback Scheme on Multicell Multiuser MISO System</b> .....  | 1311 |
| <i>Zhang Rui, Song Rongfang</i>   |      |
| <b>Zone Based Downlink Frequency Planning Scheme in Relay Enhanced Cellular Systems</b> .....                               | 1317 |
| <i>Xing Yang, Tiankui Zhang, Chunyan Feng, Zhongfeng Li</i>   |      |
| <b>Feedback-Aided Pilot Placement for Two-Way Cooperative-OFDM</b> .....  | 1322 |
| <i>Wei Wu, Xin Jia, Yueming Cai, Huachao Hu</i>   |      |
| <b>Research on Decreasing Resource Consumption in Wireless O2O Services Operation</b> .....                                 | 1327 |
| <i>Qian Xiaocong</i>  |      |
| <b>Downlink Power Control in Cognitive Femtocell Networks</b> .....   | 1331 |
| <i>Daolong Sun, Xinning Zhu, Zhimin Zeng, Shaohua Wan</i>   |      |
| <b>Distribution of PAPR in LOFDM Systems Based on Extreme Value Theory</b> .....  | 1336 |
| <i>Kui Xu, Dongmei Zhang, Youyun Xu, Zhenxing Lv, Wenwen Liang</i>  |      |
| <b>Broadcasting Efficient Opportunistic Network Coding for Multisource-Multidestination Scenarios</b> .....                 | 1341 |
| <i>Zhenxing Lv, Youyun Xu, Kui Xu, Lianguo Wu</i>   |      |
| <b>Cooperative Transmit Diversity Based on Physical Layer Network Coding</b> .....  | 1346 |
| <i>Xinyi Zhong, Youyun Xu, Kui Xu, Ning Li</i>  |      |
| <b>Outage-Optimal Relay Selection in Wireless Sensor Networks Using Fuzzy Comprehensive Evaluation</b> .....                | 1349 |
| <i>Wendong Yang, Yueming Cai</i>  |      |
| <b>Integration of Wireless Sensor Network into Existing Public Network using DSL and Development of Web Presenter</b> ..... | 1353 |
| <i>Yu Sun, Stevan Berber</i>  |      |

|   |             |
|---|-------------|
| <b>Simplified Alternating Optimization for Robust MMSE MIMO Transceiver .....</b>                               | <b>1358</b> |
| <i>Jiaheng Wang, Mats Bengtsson</i>   |             |
| <b>Adaptive Reconstruction of Human Motion on Wireless Body Sensor Networks.....</b>                            | <b>1363</b> |
| <i>Shih-Yeh Chen, Wei-Tsong Lee, Han-Chieh Chao, Yueh-Min Huang, Chin-Feng Lai</i>                              |             |
| <b>Beamformer Designs for Zero-forcing Dirty Paper Coding (Invited paper) .....</b>                             | <b>1368</b> |
| <i>Le-Nam Tran, Markku Juntti, Mats Bengtsson, Björn Ottersten</i>  |             |
| <b>Design of MAI Constrained Decision Feedback Equalizer for MIMO CDMA System .....</b>                         | <b>1373</b> |
| <i>Khalid Mahmood, Muhammad Moinuddin, Syed Muhammad Asad, Shashi Paul</i>                                      |             |
| <b>Real Time Services for Future Cloud Computing Enabled Vehicle Networks .....</b>                             | <b>1378</b> |
| <i>Jin Wang, Jinsong Cho, Sungyoung Lee, Tinghuai Ma</i>  |             |
| <b>A Survey of Cyber-Physical Systems .....</b>   | <b>1383</b> |
| <i>Jianhua Shi, Jiafu Wan, Hehua Yan, Hui Suo</i>   |             |
| <b>On the Performance of Kronecker MIMO Channel Models: A Semi-definite Relaxation Approach .....</b>           | <b>1389</b> |
| <i>Nafiseh Shariati, Mats Bengtsson</i>   |             |
| <b>A Multi-Path Transmission Algorithm for Layered Scalable Coding.....</b>                                     | <b>1395</b> |
| <i>Deng-Yin Zhang, Jun Wen, Lin Siyuan</i>  |             |
| <b>A Technical Approach to Achieve Smart Grid Advantages using Energy Management Systems.....</b>               | <b>1400</b> |
| <i>Yousuke Nozaki, Tetsuya Tominaga, Noboru Iwasaki, Akira Takeuchi</i>   |             |
| <b>A Survey of Game Theoretic Approaches in Smart Grid.....</b>   | <b>1405</b> |
| <i>Zubai Fadlullah, Yousuke Nozaki, Akira Takeuchi, Nei Kato</i>  |             |
| <b>Real-time Video Surveillance for Large Scenes .....</b>  | <b>1409</b> |
| <i>Hanyu Liu, Chong Tang, Shaoen Wu, Honggang Wang</i>  |             |
| <b>Yet Another Entropy Power Inequality With An Application.....</b>  | <b>1413</b> |
| <i>Miquel Payaro, Maria Gregori, Daniel Paloma</i>  |             |
| <b>Energy Efficient Communication Networks Design for Demand Response in Smart Grid .....</b>                   | <b>1418</b> |
| <i>Lei Zheng, Simon Parkinson, Dan Wang, Lin Cai, Curran Crawford</i>   |             |
| <b>A Stochastic Petri Nets Approach to Dependability Analysis of Control Center Networks in Smart Grid.....</b> | <b>1424</b> |
| <i>Rongfei Zeng, Yixin Jiang, Chuang Lin, Xuemin Shen</i>   |             |
| <b>Author Index</b>   |             |