

10th International Conference on Wireless Communications, Networking and Mobile Computing

(WiCOM 2014)

IET Seminar Digests 2014/003

**Beijing, China
26 – 28 September 2014**

ISBN: 978-1-5108-0416-6

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2014) by the Institution of Engineering and Technology
All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact the Institution of Engineering and Technology
at the address below.

Institution of Engineering and Technology
P. O. Box 96
Stevenage, Hertfordshire
U.K. SG1 2SD

Phone: 01-441-438-767-328-328
Fax: 01-441-438-767-328-375

www.theiet.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

INFERENCE OF SYSTEM IDENTIFICATION PERFORMANCE FROM INPUT/OUTPUT MEASUREMENTS	1
<i>D. R. Morgan</i>	
DIRECT LEARNING PREDISTORTION ALGORITHM BASED ON PSO IN FREQUENCY DOMAIN	8
<i>Jiang Nan Yuan, Min Xiao</i>	
RESEARCH ON BINARY COMPLEMENTARY ARRAY PAIR SET	12
<i>Jun Ping Gao, Qi Li</i>	
AN IMPEDANCE MATCHING METHOD FOR BROADBAND SPIRAL ANTENNA	17
<i>Xu-Bao Sun, Lin Jiang</i>	
FPGA-BASED DIGITAL PREDISTORTION OF A 3.5 GHZ GAN DOHERTY POWER AMPLIFIER	20
<i>T. Jiang , R. Quaglia , V. Camarchia , M. Pirola</i>	
COOPERATIVE RATELESS CODES FOR NGB-W	25
<i>Hong Tang , Jianing Zhao , Yujiao He , Lijuan Tao</i>	
CORRELATION MAPPING BASED SPREADING IN OFCDM SYSTEMS	31
<i>Shuling Feng , Yue Xiao , Lan Peng , Xu He</i>	
MIMO-OFDM WITH INTERLEAVED SUBCARRIERINDEX MODULATION	35
<i>Shunshun Wang , Bin Xu , Huirong Bai , Yue Xiao , Lilin Dan</i>	
A LOW-COMPLEXITY DETECTION ALGORITHM FOR SPATIAL MODULATION SYSTEMS	38
<i>Yunjiao Zhang , Zhaorui Wang , Shunshun Wang , Yue Xiao , Lilin Dan</i>	
SUBCARRIER INDEX MODULATED OFDM WITH SOFT DECODER	41
<i>Jia Tan , Shunshun Wang , Shiwen Fan , Yue Xiao</i>	
AN IMPROVED SUBSPACE CHANNEL ESTIMATION FOR MIMO-OFDM SYSTEMS	45
<i>Biling Zhang , Jung-Lang Yu , Chao-Yu Wu</i>	
WAVELET PACKET TRANSFORM BASED CME ALGORITHM ON INTERFERENCE EXCISION IN COMMUNICATION SYSTEM	49
<i>Yao Cheng</i>	
A NOVEL SER AND PAPR REDUCTION SCHEME FOR COMPLEX FIELD NETWORK CODING	54
<i>Pan Li , Jianjun Hao , Yijun Guo</i>	
QR DECOMPOSITION AND GRAM SCHMIDT ORTHOGONALIZATION BASED LOW-COMPLEXITY MULTI-USER MIMO PRECODING	61
<i>Jian Wu , Shu Fang , Lei Li , Yang Yang</i>	
THE ITERATIVE IDENTIFICATION METHOD FOR HAMMERSTEIN NONLINEAR CHANNEL	67
<i>Rui Su , Bin Wang , Shigang Liu</i>	
A LOW-COMPLEXITY CYCLIC SHIFT CODEBOOK DESIGN FOR MASSIVE MIMO	73
<i>Yibing Xie , Jianhua Ge , Mi Hu</i>	
A TOMLINSON-HARASHIMA PRECODING METHOD TO IMPROVE CHANNEL PERFORMANCE	78
<i>Guannan Li , Jie Cao , Jinghe Huo</i>	
RESEARCH ON IMPACT OF SEA CLUTTER TO COMMUNICATION LINK	81
<i>Tao Jiang , Qi Li , Xiaodong Cao , Renjie Yu , Chang Su</i>	
A STUDY OF THE HEMP ENVIRONMENT OVER SHIP BOARD BASED ON SIGNAL RECONSTRUCTION	85
<i>Ta Jiang , Renjie Yu , Yuanyuan Li , Qi Li , Chang Su</i>	
RECEIVER WINDOW DESIGN FOR OFDM SYSTEMS OVER TIME-VARYING POWER LINE CHANNELS	89
<i>Wenfei Zhu , Xu Zhu , Eng Gee Lim , Yi Huang</i>	
EFFECT OF LOW-PRECISION QUANTIZATION ON THE PERFORMANCE OF CHANNEL ESTIMATION FOR OFDM SYSTEMS	95
<i>Haifeng Wang , Xingzhong Xiong , Dandan Li</i>	
MODELING OF WIRELESS CHANNEL BETWEEN UAV AND VESSEL USING THE FDTD METHOD	100
<i>Zhiyuan Shi , Peng Xia , Zhibin Gao , Lianfen Huang , Canbin Chen</i>	

AN IMPROVED ALGORITHM BASED ON TRAINING SYMBOL FOR OFDM SYMBOL SYNCHRONIZATION	105
<i>Juan Wei , Juanjuan Hu , Jing Chen</i>	
ANALYSIS OF COOPERATION FOR RELAY BASED SPECTRUM SENSING IN COGNITIVE RADIO NETWORKS	109
<i>Shi-Qi Liu, Bin-Jie Hu</i>	
THE SPECTRUM SENSING ALGORITHM FOR COGNITIVE NETWORK BASED ON LLE AND RANDOM FOREST	113
<i>Xin Wang , Zhigang Liu , Jinkuan Wang</i>	
SPECTRUM TRADING ALGORITHM BASED ON AGENT IN COGNITIVE RADIO NETWORKS	117
<i>S. B. Zhang , G. D. Zhang , Z. H. Bao</i>	
LOCATION ESTIMATION BASED SPATIOTEMPORAL SENSING IN COGNITIVE RADIO NETWORKS	121
<i>Min Deng, Bin-Jie Hu</i>	
COOPERATIVE SPECTRUM SENSING ALGORITHM BASED ON BISTABLE STOCHASTIC RESONANCE	126
<i>Weikang Hu , Zhijin Zhao , Lei Shen , J. Shang</i>	
A SPECTRUM PREDICTION APPROACH BASED ON NEURAL NETWORKS OPTIMIZED BY GENETIC ALGORITHM IN COGNITIVE RADIO NETWORKS	131
<i>Kunwei Lan , Hangsheng Zhao , Jianzhao Zhang , Cao Long , Menglin Luo</i>	
A SOUNDING SIGNAL DETECTION SCHEME FOR COMPRESSED SPECTRUM SENSING IN NON-SPARSE WIDEBAND COGNITIVE RADIOS	137
<i>Chunxiao Fan , Weilin Xu , Zhigang Wen</i>	
PROBABILITY DISTRIBUTION EQUALIZATION SCHEME FOR PAPR REDUCTION IN NC-OFDM SYSTEMS	144
<i>A. A. Eltholth</i>	
PERFORMANCE ANALYSIS OF UNSLOTTED CSMA WITH DOUBLE BACK-OFF IN MULTI-CHANNEL COGNITIVE RADIO NETWORK	149
<i>Xiaomei Guo, Dongbi Zhu</i>	
A DYNAMIC THRESHOLD COMPUTING METHOD BASED ON SOM NEURAL NETWORK IN FREQUENCY OCCUPANCY ANALYSIS	153
<i>Miao Yang , Huiling Dai , Neng Ye</i>	
TRI-THRESHOLD COOPERATIVE SPECTRUM DETECTION FOR COGNITIVE RADIO BASED ON WEIGHING	159
<i>Qian Hu, Xin Liu</i>	
A FREQUENCY SET ADAPTIVE OPTIMIZATION ALGORITHM FOR DIFFERENTIAL FREQUENCY HOPPING NETWORK BASED ON COGNITIVE RADIO AND LATIN SQUARES	165
<i>Zhuo Cheng , Shu Wang , Dianhong Wang , Shu Yan</i>	
OPTIMAL POWER ALLOCATION FOR COGNITIVE TWO WAY NETWORKS WITH PRIMARY USER OUTAGE CONSTRAINT	171
<i>Peng Lan , Fenggang Sun , Guowei Zhang , Jialin Hou</i>	
A ROBUST PRE-CODER DESIGN METHOD FOR COGNITIVE RADIO MIMO NETWORK	177
<i>Jingbo Yang , Wentao Zhu , Xu Liu</i>	
SIMULATION OF SIMPLIFIED QUEUE MODEL OF COGNITIVE RADIO	181
<i>T. S. Mahbub</i>	
PERFORMANCE ANALYSIS OF UNDERLAY WAVEFORM IN THE DOWNLINK OF ASYNCHRONOUS OFDM/FBMC BASED COGNITIVE RADIO TRANSCEIVERS	185
<i>S. Ben Aissa , M. Hizem , R. Bouallegue</i>	
CHANNEL QUALITY RANKING IN COGNITIVE RADIO NETWORKS	191
<i>X. L. Huang , Y. B. Zhai , J. Wu , X. Wu</i>	
BFDM PROTOTYPE FOR COGNITIVE RADIO SYSTEMS	195
<i>H. Adouni , M. Hizem , R. Bouallegue</i>	
COMPARISON OF THREE SPECTRUM ACCESS SCHEMES IN COGNITIVE RADIOS	201
<i>Junyuan Huang , Ruoshan Kong , Huaibei Zhou</i>	
ONLINE LEARNING IN CHANNEL SENSING ORDER FOR COGNITIVE RADIOS	206
<i>Junyuan Huang , Ruoshan Kong , Huaibei Zhou</i>	
4G FEMTOCELL LTE BASE STATION WITH DIVERSITY AND ADAPTIVE ANTENNA TECHNIQUES	216
<i>Yue Tian , A. Nix , M. Beach</i>	
RESEARCH OF POWER IMBALANCE IN COOPERATION DIVERSITY SATELLITE SYSTEM	222
<i>Heng He , Xiaodong Mu , Xiaoyun Yang</i>	

THE STUDY OF C-RAN APPLICATION ON BROADBAND WIRELESS ACCESS FOR HIGH-SPEED RAILWAY	226
<i>Pengyu Liu , Liu Liu , Cheng Tao , Rongchen Sun</i>	
GROUP-BASED COLLABORATIVE HANDOVER IN LTE MACRO-FEMTOCELL NETWORK	239
<i>Xiaojuan Zhang, Peng Wang</i>	
OPTIMIZATION ALGORITHMS FOR MASSIVE ACCESSES OF MTC DEVICES IN LTE-A NETWORKS	245
<i>Chen Chen , Guangliang Ren , Qiwei Wang</i>	
DESIGN OF WIRELESS COMMUNICATION SYSTEM BASED ON CONDUCTION CURRENT FIELD THROUGH THE EARTH	260
<i>Jiannan Sun , Yanhui Tian , Weizhi Geng , Wei Xue</i>	
SYSTEM OUTAGE PROBABILITY ANALYSIS OF DISTRIBUTED ANTENNA SYSTEMS WITH BEAMFORMING	264
<i>Meiyan Ju , Yueheng Li , Wenjie Peng , Ping Huang , Guoping Tan</i>	
A DISTRIBUTED SCHEME OF ENERGY-EFFICIENT 3D-BEAMFORMING	269
<i>Minghuan Tang , Gaofeng Cui , Xun Zou , Weidong Wang , Yinghai Zhang</i>	
CAPACITY TO ENERGY RATIO EVALUATION OF POLARIZED MIMO SYSTEMS: ANALYSIS AND COMPARISON	275
<i>M. Ben Zid , K. Raouf , R. Anane</i>	
RESEARCH ON LFM AND VOICE SSB SIGNAL TRANSMISSION SYSTEM IN SAME BANDWIDTH	280
<i>Lili Guo , Yan Zhai , Zhiguo Sun , Xiaoyan Ning</i>	
DECODING OVERLAPPED TIME DIVISION MULTIPLEXING SYSTEM WITH FANO ALGORITHM	284
<i>Qingshuang Zhang , Ke Wang , Aijun Liu , Daoben Li , Xiaofei Pan</i>	
TUNABLE EMBEDDED NOTCH STRUCTURE FOR UWB BANDPASS FILTER	289
<i>Tao Jiang , Xiefu Zhang , Li You , Daoliang Zhang</i>	
A NOVEL COMPACT EBG STRUCTURE FOR MULTIBAND WIRELESS COMMUNICATION	294
<i>Daoliang Zhang , Tao Jiang , Yuanyuan Kong</i>	
DUAL-BAND BANDPASS FILTER WITH TUNABLE CENTRE FREQUENCIES	298
<i>Bingran Zhang , Tao Jiang , Daoliang Zhang</i>	
A RESOURCE SCHEDULING SCHEME FOR UPLINK SHORT-SIZE PACKET ACCESS IN WCDMA SYSTEM	306
<i>Feifei Lu , Xiaoxia Qi , Dou Li , Yuping Zhao</i>	
A STUDY OF CLEAR CHANNEL ASSESSMENT PERFORMANCE FOR LOW POWER WIDE AREA NETWORKS	311
<i>Zecheng Xie , Rongtao Xu , Lei Lei</i>	
PERFORMANCES OF THE RADIO CHAIN IN A HIGH ENERGY PARTICLE DETECTOR	316
<i>A. M. Badescu , C. E. Stefan , A. Saftoiu , I. Brancus , B. Mitrica</i>	
LOW-COMPLEXITY LDPC-CODED USTM SYSTEM BASED ON DUAL DEMODULATOR	322
<i>Li Peng , Lingling Yang</i>	
LOCAL IMPROVEMENT BASED WIRELESS NETWORK SELECTIONS	327
<i>Zhiyong Du , Lijie Yin , Chong Du</i>	
SMOOTHLY ESTIMATE THE RTT OF FAST TCP BY ARMA FUNCTION MODEL	333
<i>Wei Liang , Sulei Xu</i>	
A TRAFFIC OVERLOAD CONTROL APPROACH TO NEW GENERATION ELECTRIC COMMUNICATION NETWORKS BASED ON IP-RAN	340
<i>Nan Jiang , Fanbo Meng , Honghao Zhao , Fei Xia , Zongze Xia , Xiaoxu Yu , Zhigang Qi</i>	
COMPRESSIVE WIDEBAND SPECTRUM SENSING IN CRNS UNDER PRIMARY USER EMULATION ATTACK	345
<i>K. T. Cao , H. Q. Shao</i>	
RESEARCH ON DYNAMIC POLLING NETWORK ACCESS CONTROL PROTOCOL BASED ON PRIORITY	350
<i>Mingjun Gao , Guoyi Zhang , Haicheng Yang</i>	
AN AUTONOMOUS CHANNEL SELECTION ALGORITHM BASED UPON NEIGHBOUR FORCING FOR MULTI-CHANNEL IEEE 802.11 NETWORKS	356
<i>Fuhu Deng , M. Davis , Zhiguang Qin</i>	
ROUTING METRIC FOR WIRELESS MESH NETWORKS USING PARTIALLY OVERLAPPED CHANNELS	361
<i>Wenxiao Shi , Yuxin Li , Jihong Wang , Shuo Shang</i>	

A BI-DIRECTION HYBRID ROUTING ALGORITHM IN MOBILE HYBRID WIRELESS NETWORKS.....	371
<i>Xiaolong Li , Jianjun Hao , Yijun Guo</i>	
THE RECONFIGURABLE FAULT TOLERANCE ROUTING ALGORITHM IN MESH TOPOLOGY STRUCTURE.....	376
<i>Jianfei Wu , Hua Cai , Fuheng Qu , Yong Yang</i>	
THE CONGESTION CONTROLLING ALGORITHM BASED ON DYNAMIC ROUTING TABLE ON NETWORK ON CHIPS.....	381
<i>Bo Wang , Hua Cai , Fuheng Qu , Yong Yang</i>	
A DISTRIBUTED CACHING BASED ON NEIGHBOR COOPERATION IN CCN.....	386
<i>Yan Zhang , Hua Qu , Jihong Zhao</i>	
NETWORK TRAFFIC LOAD BALANCING METHOD WITH GEO SATELLITES COOPERATION.....	393
<i>Feng Ni , Jinchun Gao , Gang Xie , Yuanan Liu , Bibo Hu , Jingchao Wang</i>	
A NOVEL TRUNK SCHEDULING FOR CONCURRENT MULTIPATH TRANSFER IN HETEROGENEOUS WIRELESS NETWORKS.....	398
<i>Kaiming Liu , Qi Huang , Yuanan Liu , Yuanyuan Fan , Gang Xie</i>	
A GAME THEORY CONTROL SCHEME IN MEDIUM ACCESS FOR WIRELESS BODY AREA NETWORK.....	404
<i>Jing Zhou , Aihuang Guo , J. Xu , Hung Nguyen , S. Su</i>	
STUDY AND CLASSIFICATION ON MULTICAST CONGESTION CONTROL.....	410
<i>Long Yan</i>	
EVALUATION ON THE APPLICATION-ORIENTED MEASUREMENT TOOLS FOR AVAILABLE NETWORK BANDWIDTH.....	415
<i>Xiaodan Zhang</i>	
SIMULATION AND ANALYSIS ON THE THREE-WAY HANDSHAKING TIME OF THE COORDINATED DISTRIBUTED SCHEDULER IN IEEE 802.16 MESH MODE.....	419
<i>Yunting Xie , Xu Li , Haiyang Qu</i>	
SURVIVABLE VIRTUAL NETWORK SOLUTION BASED ON MULTI-EMBEDDING ALGORITHM.....	425
<i>Benfei Hu , Dong Zhang</i>	
TOKEN-BASED MULTIPLE ACCESS TECHNIQUE IN HIGH FREQUENCY GROUND-TO-AIR IP NETWORK.....	431
<i>Xiao He , Yunjiang Liu , Man Li , Chao Li , Demin Zhou</i>	
THE METHOD OF CLUSTER COMPRESSIVE DATA GATHERING BASED ON PRETREATMENT.....	437
<i>Yuanyuan Liu , Baishan Ci , Wentao Zhao , Lu Zhu , A. Zhan</i>	
INCREASING PERFORMANCE FOR MULTICHANNEL DISTRIBUTED COORDINATION IN WIRELESS SENSOR NETWORKS.....	441
<i>D. Buranapanichkit</i>	
DATA CONGESTION-AWARE ROUTING FOR VEHICULAR AD HOC NETWORKS IN URBAN ENVIRONMENTS.....	445
<i>Yu-Chih Hung , Tsung-Chuan Huang</i>	
AN EFFICIENT CHANNEL SCANNING AND SELECTION SCHEME FOR MULTI-CHANNEL MAC PROTOCOLS IN WSNS.....	450
<i>Beomseok Kim , Byoungseon Kim , Jinsung Cho</i>	
A NOVEL APPLICATION-SEMANTICS BASED HYBRID QOS MAC IN WIRELESS SENSOR NETWORKS.....	456
<i>Fuyang Zhang , Fanyong Meng , Qingxu Xiong</i>	
ON THE EFFICIENCY OF ROUND-2: A SIMPLE ALGORITHM TO FURTHER MINIMIZE CONNECTED DOMINATING SET OF STATIC PROTOCOLS IN AD HOC NETWORKS.....	462
<i>Yamin Li</i>	
ANALYSIS OF CLUSTER WIRELESS SENSOR NETWORK BASED ON ENERGY HARVESTING.....	468
<i>Lu Zhu , Zezhong Pan , Yuanyuan Liu , Aiyun Zhan</i>	
A ROUTING PROTOCOL FOR MOBILE SENSOR NETWORK BASED ON LEACH.....	473
<i>Zhang Qi , Yu Min</i>	
RESEARCH ON ROUTING PROTOCOLS IN WIRELESS SENSOR NETWORK FOR BRIDGE HEALTH MONITORING.....	478
<i>Tongyu Lin , Guan hong Lai , Yu Liu , Shuri Cai , Xiaojing Wang</i>	

ISSUES ON CONVERGECAST SCHEDULING IN INDUSTRIAL WIRELESS SENSOR NETWORKS	485
<i>Jing Zhao , Hongchao Wang , Yajuan Qin , Dong Yang</i>	
OPTIMAL POWER ALLOCATION FOR THE MAXIMIZATION OF ENERGY EFFICIENCY IN WIRELESS SENSOR NETWORKS	491
<i>Kaiyue An , Kai Sun , Wei Huang , Shiyue Hou , Hongxia Zhang , Lei Zhang</i>	
IMPACT OF VARIABLE TRANSMISSION POWER ON ROUTING PROTOCOLS IN WIRELESS SENSOR NETWORKS	496
<i>M. Bouallegue , K. Raoof , M. Ben Zid , R. Bouallegue</i>	
OPTIMAL MODULATION SCHEME FOR ENERGY EFFICIENT WIRELESS SENSOR NETWORKS	500
<i>R. Anane , K. Raoof , M. Ben Zid , R. Bouallegue</i>	
A DETECTION METHOD FOR MALICIOUS CODES IN ANDROID APPS	514
<i>Jinxin Liu , Hao Wu , Huabin Wang</i>	
A SURVEY OF ANDROID MOBILE PLATFORM SECURITY	520
<i>Futai Zou , Siyu Zhang , Tianqi Wan , Li Pan</i>	
CHAOTIC MAPS-BASED THREE-PARTY AUTHENTICATED KEY AGREEMENT PROTOCOL USING SMART CARDS	528
<i>Nan Liu , Cheng Guo , Huan Zhang , Lifeng Yuan</i>	
THE IDENTIFICATION ALGORITHM OF NETWORK KEY ROLE BASED ON BEHAVIOR ACCUMULATION	538
<i>Xiaofeng Xu , Xiao Li</i>	
DELAY ANALYSIS OF TWO WAY TIME TRANSFER BASED ON TROPOSPHERE GRADIENTS	543
<i>Xihong Chen , Qiang Liu , Denghua Hu , Lunsheng Xue , Jiye Liu</i>	
DESIGN OF A RECONFIGURABLE DSP PROCESSOR USING RNS FOR MOBILE COMPUTING AND EMBEDDED SYSTEMS	548
<i>P. Garai , C. B. Dutta</i>	
THE OIL PIPELINE WIRELESS COMMUNICATION SYSTEM BASED ON MAGNETIC ANTENNA	554
<i>Wei Wang , Wenjing Shang , Demin Pan</i>	
REGION-OF-INTEREST BASED RATE AND COMPUTING RESOURCE ALLOCATION IN VIDEO CODING	560
<i>Xin Chen , Yuan Zhang , Zhijun Zhao , Yuxia Wang</i>	
ARCHITECTURE DESIGN AND IMPLEMENTATION OF ERA BASED TROPICAL AGRICULTURAL SENSING SYSTEM	565
<i>Song Huang , Keyang Huang , Chong Shen , Yonghui Zhang , I. Schagaev</i>	
THE SIMULATION RESEARCH OF SEARCH ALGORITHM FOR COMPUTER MOUSE MAZE	572
<i>Jie Zhan , Xianchun Li , Jiawei He</i>	
PERFORMANCE ANALYSIS OF CLOUD AS A FEASIBLE PLATFORM FOR HPC APPLICATIONS USING RADIX SORT ALGORITHM	577
<i>M. Aiatullah , R. Hassani , A. Malekpour , P. Luksch</i>	
DYNAMIC SUPPRESSION BROADCAST SCHEME FOR VEHICLE ADHOC NETWORKS (VANET)	589
<i>M. Obaidat , M. Ali , I. Shahwan , S. Obeidat , A. Toce</i>	
A RESEARCH ON THE TRANSCODING MECHANISM FOR NFC MESSAGE FORMAT	593
<i>Guangyuan Zhang , Chunxiao Fan , Junwei Zou</i>	
USER COOPERATIVE ERASURE RECOVERY IN E-MBMS BASED ON NETWORK CODING	598
<i>Wenting Gao , Jianjun Hao , Yijun Guo</i>	
STUDY OF FINGERPRINT LOCATION ALGORITHM BASED ON WIFI TECHNOLOGY FOR INDOOR LOCALIZATION	604
<i>Ting-Ting Xiao , Xing-Yu Liao , Ke Hu , Min Yu</i>	
A POST-PROCESS FOR RECOMMENDER SYSTEMS: MULTI-CATEGORIZATION RECOMMENDATION ADJUSTING (MRA)	609
<i>Yidong Cui , Sida Zhou , Kang Liang</i>	
A NOVEL TRIPLE BAND ANTENNA FOR RFID HANDHELD READER	615
<i>Li You , Kai Zhou , Xie-Fu Zhang , Chun-Sheng Tian</i>	
A NEW TESTING DEVICE FOR RFID PERFORMANCE FACTORS OF CONVEYOR BELT SYSTEM	619
<i>Xiaofeng Ning , Hongsheng Zhao</i>	
AN IMPROVED INFRASTRUCTURE ASSISTED V2P PROTOCOL FOR VANETS	638
<i>Zhi-Qiang Lu , Yong Feng , Jie Yang , Xiong-Qi Zheng</i>	

RESEARCH ON IMPROVEMENT TO WIFI FINGERPRINT LOCATION ALGORITHM	648
<i>Xing-Yu Liao , Ke Hu , Min Yu</i>	
RESEARCH ON INDOOR LOCALIZATION METHOD BASED ON PDR AND WI-FI	653
<i>Ke Hu , Xing-Yu Liao , Min Yu</i>	
ENHANCED ADS-B RECEPTION TECHNIQUES RESEARCH.....	657
<i>Chaozhu Zhang , Chenglong Zhang , Yu Wang</i>	
DYNAMIC SLOTS COLLISION TRACKING TREE BASED RFID ANTI-COLLISION ALGORITHM	662
<i>Yihua Huang, Xiaoruo Chen</i>	
SHADOWING FUNCTIONS FOR ELECTROMAGNETIC WAVE SCATTERING SIMULATION FOR UNDERWATER MOVING OBJECT.....	673
<i>Tao Jiang , Jiao Wang , Jiajia Jin , Daoliang Zhang</i>	
AN ACCESS CONTROL ARCHITECTURE BASED ON IF-MAP FOR CLOUD ENVIRONMENTS.....	677
<i>Yaping Chi , Haijing Liu , Guoming An</i>	
OPTIMIZATION AND IMPLEMENTATION OF HANDLE SERVER.....	682
<i>Junling You, Xiao Li</i>	
Author Index	