

2010 Global Mobile Congress

(GMC 2010)

Shanghai, China

18 – 19 October 2010



IEEE Catalog Number: CFP1041I-PRT
ISBN: 978-1-4244-9001-1

TABLE OF CONTENTS

A LOW COMPLEXITY SCHEME FOR S-SCH DETECTION IN 3GPP LTE DOWNLINK SYSTEM.....	1
<i>Feng Wang, Yu Zhu, Zongxin Wang</i>	
AN ADAPTIVE ENERGY-EFFICIENT MAC FOR WIRELESS SENSOR NETWORK.....	7
<i>Yongtao Zhang, Huagang Xiong</i>	
A ROBUST TIMING AND FREQUENCY SYNCHRONIZATION ALGORITHM FOR HF MIMO OFDM SYSTEM.....	11
<i>Hui-Li Fan, Jing-Fang Sun, Ping Yang, Ding-Shan Li</i>	
AN ADAPTIVE BANDWIDTH RESOURCE MANAGEMENT SCHEME FOR MULTIMEDIA LEO SATELLITE NETWORKS.....	15
<i>Huai-Yi Wang, Xue-Mai Gu</i>	
AN EFFICIENT METHOD FOR PROCESSING REVERSE SKYLINE QUERIES.....	21
<i>Jongtae Lim, Yonghun Park, Jinju Lee, Dongmin Seo, Jaesoo Yoo</i>	
AN INTEGRATED METRIC ROUTING PROTOCOL FOR MULTI-CHANNEL WIRELESS NETWORKS.....	26
<i>Yu Xutao, He Wenbo</i>	
AN SMDP-BASED OPTIMAL ADMISSION CONTROL SCHEME IN COGNITIVE RADIO NETWORKS.....	30
<i>Deng Qiang, Chen Shan-Zhi, Xie Dong-Liang, Hu Bo, Shi Yan</i>	
BANDPASS SAMPLING FOR MULTIBAND SIGNAL ON EXPONENT DEMODULATION FUNCTION.....	35
<i>Qian Hui, Yu Lun</i>	
FREQUENCY OFFSET AND CHANNEL ESTIMATION IN OFDM SYSTEMS BY BLIND ADAPTIVE FILTER.....	39
<i>Tangdi Zhang, Caixiang Wang, Xiaowen Li</i>	
CAPACITY ENHANCEMENT OF CDMA CELLULAR SYSTEMS WITH ROTATABLE EQUAL SECTORING METHOD.....	44
<i>Mohammad Moghaddam</i>	
CHANNEL ASSIGNMENT SCHEMES IN WIRELESS MESH NETWORKS.....	49
<i>Yulong Chen, Ning Xie, Gongbin Qian, Hui Wang</i>	
CONTRIBUTION TO ANALYSIS OF INTERCELL INTERFERENCE COORDINATION IN LTE: A FRACTIONAL FREQUENCY REUSE CASE.....	54
<i>Marko Porjazoski, Borislav Popovski</i>	
CROSS-LAYER BASED OPTIMIZATION FOR FAIRNESS CONTROL MECHANISM IN OFDM WIRELESS NETWORKS.....	58
<i>Lixin Sun, Kunqi Guo, Shilou Jia</i>	
CROSS LAYER DESIGN OF EFFICIENCY AND FAIRNESS TRADE-OFF FOR RESOURCE ALLOCATION IN MULTIUSER DOWNLINK WIRELESS NETWORKS.....	62
<i>Lixin Sun, Kunqi Guo, Shilou Jia</i>	
LOCAL LINK INFORMATION BASED DATA SCHEDULING IN OFDMA WIRELESS NETWORKS.....	67
<i>Kunqi Guo, Lixin Sun, Shilou Jia</i>	
DYNAMIC LOAD BALANCE SCHEME BASED ON MOBILITY AND SERVICE AWARENESS IN INTEGRATED 3G/WLAN NETWORKS.....	73
<i>Liu Qi, Yuan Jian, Shan Xiuming, Wang Yue, Su Wei</i>	
EMERGENCY M-BUSINESS MOBILE BASED ON 4G.....	79
<i>Ning Tong, Di Wu, Xiu-Kun Wang</i>	
FAIRNESS BASED CROSSTALK MANAGEMENT IN XDSL SYSTEMS.....	84
<i>Zahy Abou-Atme, Wen Xu, Jianguo Ding</i>	
GREEN 4G COMMUNICATIONS: RENEWABLE-ENERGY-BASED ARCHITECTURES AND PROTOCOLS.....	90
<i>Sean Yeh</i>	
OPTIMIZED AODV ROUTING PROTOCOL FOR VEHICULAR AD HOC NETWORKS.....	95
<i>Baozhu Li, Yue Liu, Guoxin Chu</i>	
JOINT ADMISSION CONTROL THROUGH VERTICAL HANDOFF IN HETEROGENEOUS WIRELESS NETWORKS.....	99
<i>Deng Qiang, Chen Shan-Zhi, Xie Dong-Liang, Hu Bo, Shi Yan</i>	

JOINT BASE STATION ASSIGNMENT, POWER CONTROL ERROR, AND ADAPTIVE BEAMFORMING FOR DS-CDMA CELLULAR SYSTEMS IN MULTIPATH FADING CHANNEL	104
<i>Mohamad Moghadam, Hamidreza Bakhshi, Gholamreza Dadashzadeh, Mehran Chegini</i>	
JOINT CLOSED-LOOP POWER CONTROL AND CONSTRAINED LMS ALGORITHM FOR DS-CDMA RECEIVER IN MULTIPATH FADING CHANNELS.....	111
<i>Mohamad Moghadam, Hamidreza Bakhshi, Gholamreza Dadashzadeh, Mehran Chegini</i>	
NON-COHERENT DETECTION PERFORMANCE OF OST-MCPM SYSTEMS IN NONLINEAR CHANNELS.....	119
<i>Wenli Shen, Yanping Yu</i>	
OPTIMALITY ANALYSIS OF BIT-INTERLEAVED LDPC CODED MODULATION SCHEMES	124
<i>Rui Zhang, Zhisong Bie</i>	
PEAK-TO-AVERAGE POWER RATIO OF SC-FDMA SYSTEMS WITH LOCALIZED SUBCARRIER MAPPING	129
<i>Peng Li, Yu Zhu, Zongxin Wang, Naibo Wang</i>	
PERFORMANCE ANALYSIS OF FRACTAL TREE COLLISION SOLUTION ARITHMETIC (FTCSA) BASED ON WCDMA	135
<i>Bin Yan, Liang Zheng</i>	
POWER ALLOCATION FOR OFDM RELAYING SYSTEMS WITH BIT ERROR RATIO FORMULA	140
<i>Qiang Guo, Shengnan Wang, Lei Cao</i>	
POWER ALLOCATION WITH MAX-MIN FAIRNESS FOR COGNITIVE RADIO NETWORKS.....	146
<i>Lun Tang, Huan Wang, Qianbin Chen</i>	
QOS-AWARE MULTICAST ROUTING PROTOCOL FOR TRIPLE-LAYERED LEO/HEO/GEO SATELLITE IP NETWORKS	151
<i>Zhizhong Yin, Long Zhang, Xianwei Zhou, Peng Xu, Tao Zhang</i>	
RELAY SIGNALING AND ROUTING SCHEMES IN MIMO-RELAY NETWORK	157
<i>Xin Zhu, Keping Song, Zhixin Wang</i>	
REMOTE CONTAINER MONITORING WITH WIRELESS NETWORKING AND CYBER-PHYSICAL SYSTEM	162
<i>Yong Bai, Yonghui Zhang, Chong Shen</i>	
RESEARCH ON ROUTING PROTOCOL FOR MINE WSN.....	167
<i>Jing Gao, Qianping Wang</i>	
ROBUST JOINT LINEAR TRANSCEIVER DESIGN FOR MU- MIMO WITH IMPERFECT CSI.....	170
<i>Wang Li, Yang Ke, Hu Hanying, Cui Weijia</i>	
SECURE MULTILEVEL MANAGEMENT OF LARGE-SCALE NETWORK	176
<i>Shangqin Zhong</i>	
SIMULATION MODELS FOR INDEPENDENT RAYLEIGH FADING CHANNELS.....	182
<i>Zhinian Luo, Fengzhong Hu</i>	
SPECTRUM ANALYSIS OF ULTRA-WIDE BAND SIGNAL BASED ON GAUSSIAN PULSE.....	187
<i>Xiaojuan Chen, Sheng Qiang</i>	
TD-SCDMA RADIO NETWORKS OPTIMIZATION EXPERIENCE IMPROVING HANDOVER SUCCESS RATE	191
<i>Xingpeng Shen, Shoulian Tang</i>	
THE DESIGN OF X BAND MMIC LNA FOR WIRELESS COMMUNICATION	194
<i>Minglei Shen, Donglin Su</i>	
UTILIZING A CHANNEL EMULATOR WITH A REVERBERATION CHAMBER TO CREATE THE OPTIMAL MIMO OTA TEST METHODOLOGY	198
<i>Charles Wright</i>	
A CONTENT BROWSING AND SELECTION SYSTEM FOR PLAYING ONLINE STREAMING MULTIMEDIA CONTENT ON A SPECIALIZED PLAYING DEVICE	203
<i>Qing Zhang, Jianhang Zhang</i>	
A ROBUST FREQUENCY OFFSET ESTIMATION SCHEME FOR OFDM SYSTEMS	208
<i>Chun-Guo Liu, Li-Zhong Li, Xiao-Yong Zhang</i>	
ADAPTIVE COMBINING IN MB-OFDM UWB SYSTEMS	214
<i>Li Zhao, Hao Qin, Xianpu Sun</i>	
COMPACT DUAL-BAND BPF FOR GPS AND WLAN WITH TWO DUAL-MODE STEPPED IMPEDANCE RESONATORS	219
<i>Xue-Shun Zhang, Hong-Wei Deng, Lu Zhang, Yong-Jiu Zhao, Li Qiang</i>	
COMPENSATION OF CASCADED RADIO IMPAIRMENTS IN MIMO-OFDM SYSTEMS WITH DIRECT-CONVERSION ARCHITECTURE	222
<i>Chen-Jiu Hsu, Wern-Ho Sheen</i>	

DESIGN AND REALIZATION OF RLC AM MODE IN TD-LTE	228
<i>Jian-Bing Li, Lei Zhang</i>	
DESIGN DATA STRUCTURE FOR WAMS DATASTREAM MINING BASE ON GPS TIME SCALE.....	232
<i>Yunqi Kan</i>	
EMU BOGIE VIRTUAL ASSEMBLY SYSTEM BASED ON VRML TECHNOLOGY.....	235
<i>Jiang Du</i>	
HANDOVER IN THE 3GPP LONG TERM EVOLUTION (LTE) SYSTEMS.....	239
<i>Jihai Han, Bingyang Wu</i>	
KEY NODES BASED SPECTRUM SENSING FOR COGNITIVE RADIO.....	245
<i>Xianjun Zhou, Qian Zhang</i>	
PARAMETRIC DESIGN OF ANCHORING PACKAGING MACHINE BASED ON PRO/E SECONDARY DEVELOPMENT TECHNOLOGY	251
<i>Li-Jun Shan, Mu Lin</i>	
RESEARCH ON A NOVEL MULTI-BAND FRACTAL TRIANGLE FREQUENCY SELECTIVE SURFACE	256
<i>Tong Zhang, Guohui Yang, Wanlu Li, Qiang Jiang, Qun Wu</i>	
RESEARCH ON NOVEL MINIATURIZED FREQUENCY SELECTIVE SURFACES CONSIST OF RECTANGLE SPIRAL-BASED ELEMENTS	261
<i>Tong Zhang, Guohui Yang, Wanlu Li, Qiang Jiang, Qun Wu</i>	
SCHEMATIC DESIGN AND IMPLEMENTATION OF RANDOM ACCESS IN LTE TERMINAL PROTOCOL STACK.....	265
<i>Wu Wen, Dan-Dan Niu</i>	
THE DESIGN OF PHONETIC LASER RANGE FINDER BASED ON DSP	269
<i>Qing Wang, Weilong Li</i>	
RAISED COSINE-LIKE COMPANDING SCHEME FOR PEAK-TO AVERAGE POWER RATIO REDUCTION OF SCFDMA SIGNALS	272
<i>Enchang Sun, Ruizhe Yang, Pengbo Si, Yanhua Sun, Yanhua Zhang</i>	
PERFORMANCE EVALUATION OF TWO-HOP-RELAY WCDMA CELLULAR SYSTEMS WITH CONGESTION CONTROL	277
<i>Weifeng Lu, Meng Wu, Kun Wang</i>	
A HYBRID ARQ SCHEME EMPLOYING BIT REARRANGEMENT BASED ON LOW-ORDER MODULATION.....	283
<i>Zhengyu Zhang, Ling Qiu</i>	
PERFORMANCE ENHANCEMENT OF LOCALIZATION IN WIRELESS SENSOR NETWORK BY SELF-ADAPTIVE ALGORITHM BASED ON DIFFERENCE	289
<i>Guofang Dong, Liu Chang, Gao Fei, Wansheng Wang, Xiaoling Niu, Peng Gong</i>	
THE MODEL FOR EMOTIONAL VIRTUAL PERSONS IN MOBILE FRIEND-MATE SOCIAL NETWORKS.....	294
<i>Lican Huang</i>	
A MODULAR DATA LINK LAYER (M-DALL) FOR NEXT GEN MOBILE TERMINALS ENABLING WIRELESS AWARE APPLICATIONS: A PLATFORM INDEPENDENT SOFTWARE DESIGN.....	297
<i>Vijay Anand, Suman Kumar</i>	
A NOVEL JOINT-CODING-MODULATION-DIVERSITY OFDM SYSTEM	306
<i>Zhanji Wu, Wenbo Wang</i>	
THE OPTIMIZED DATA NETWORK SECURITY SYSTEM BASED ON 4G SYSTEM FOR POWER GRID SYSTEM	312
<i>Xiaogang Guo, Hao Xue</i>	
A MULTI-RELAY SELECTION ALGORITHM BASED ON THE RESIDUAL ENERGY	316
<i>Qin Qin, Tiankui Zhang, Zhimin Zeng, Congqing Zhang</i>	
THE OPTIMIZED DESIGN OF SURVEILLANCE MONITOR SYSTEM BASED ON WLAN AND 4G TECHNOLOGIES.....	321
<i>Xiaogang Guo, Hao Xue, Ronghui Bai</i>	
A MODIFIED CLEAN ALGORITHM FOR RADIATION IMAGING OF CONTINUOUS THERMAL SOURCES.....	324
<i>Xu Kai , Huang Linshu, Xiang Shunxiang</i>	
Author Index	