

2008 IEEE International Symposium on Consumer Electronics

**Vilamoura, Portugal
14-16 April 2008**

Pages 1-308



IEEE Catalog Number:
ISBN 13:

CFP08461-PRT
978-1-4244-2422-1

Table of Contents

SENSOR NETWORKS SECURITY ISSUES IN AUGMENTED HOME ENVIRONMENT	1
<i>Kostas Papadopoulos, Theodore Zahariadis, Nelly Leligou, Stamatis Voliotis</i>	
ACTIVE DVB-T ANTENNA: EVALUATION OF NOISE FIGURE AND GAIN WITH FAR FIELD MEASUREMENTS	5
<i>Kurt Blau, Markus Mehnert</i>	
BIDIRECTIONAL TRANSMISSION OVER STANDARD STEP INDEX PMMA POLYMER OPTICAL FIBER	9
<i>C. Rodrigues, Paulo Mão-Cheia, A. L. J. Teixeira, R. Nogueira, M. J. N. Lima, J. L. Pinto, P. S. André</i>	
SUPPORT OF MOBILITY AND QOS IN BROADCAST UNIDIRECTIONAL NETWORKS	11
<i>José Rocha, Susana Sargento, Janusz Gozdecki, Fabio Mitrano, Jens Mödeker</i>	
BER Evaluation of Overloaded DS-CDMA System with Timing Synchronization error	15
<i>Preetam Kumar, Saswat Chakrabarti</i>	
MATWAVE - AN USB ELECTRONIC PROTOTYPE FOR WAVE SIGNAL GENERATION	19
<i>Pedro Inácio, Rui Antunes</i>	
DIGITAL TEMPERATURE AND HUMIDITY MONITORING UNIT FOR REMOTE APPLICATIONS	23
<i>R. Matos, S. Cabral, N. Bravo, A. Cordeiro, J. Palma</i>	
LIGHT-WEIGHTED INTERNET PROTOCOL VERSION 6 FOR LOW-POWER WIRELESS PERSONAL AREA NETWORKS	27
<i>Hyoung Jun Kim, Won Jay Song, Sang Ha Kim</i>	
BER Performance of a New Overloading Scheme for Cellular DS-CDMA on Rayleigh Fading Channel	31
<i>Preetam Kumar, Saswat Chakrabarti</i>	
AN ITERATIVE CHANNEL ESTIMATION METHOD USING SUPERIMPOSED TRAINING FOR IEEE 802.16E BASED OFDM SYSTEMS	35
<i>Jinesh P. Nair, Ratnam V. Raja Kumar</i>	
SURVIVAL OF THE INTERNET APPLICATIONS: PROACTIVE RECOVERY MODEL WITH VIRTUALIZATION	39
<i>Thandar Thein, Sang Min Lee, Sung-Do Chi, Jong Sou Park</i>	
USING SCIELAB FOR IMAGE AND VIDEO QUALITY EVALUATION	43
<i>Roberto N. Fonseca, Miguel A. Ramirez</i>	
AN ENHANCED RECONSTRUCTION ALGORITHM FOR UNIDIRECTIONAL DISTRIBUTED VIDEO CODING	47
<i>W. A. R. J. Weerakkody, W. A. C. Fernando, A. M. Kondo</i>	
VOIP RECONSTRUCTION UNDER A MINIMUM INTERPOLATION ALGORITHM	51
<i>Filipe Neves, Salviano Soares, Manuel Cabral Reis, Filipe Tavares, Pedro Assunção</i>	
MEDIA CAMPUS: A NEW INTERACTIVE VIDEO EXPERIENCE FOR END USERS	54
<i>D. Jiménez, M. Díaz, C. A. Martín, J. P. López, J. M. Menéndez</i>	
Evaluating Existing Set-top Boxes Versus Transmit Diversity Schemes	58
<i>Shirazi H., Cosmas J., Krishnapillai K., Di Bari R., Gledhill J., Bard M., Bradshaw D</i>	
Mobile Integrated Conditional Access System (MICAS)	62
<i>Shirazi H., Cosmas J., Cutts D., Birch N., Daly P.</i>	
Real-Time Context-Aware and Personalized Media Streaming Environments for Large Scale Broadcasting Applications My-e-Director 2012	66
<i>Nikolaos Papaoulakis, Nikolaos Doulamis, Charalampos Patrikakis, Emmanuel Protonotarios, Jonh Soldatos</i>	
AN OPTIMIZED H.264-BASED VIDEO CONFERENCING SOFTWARE FOR MOBILE DEVICES	70
<i>Hans L. Cycon, Thomas C. Schmidt, Gabriel Hege, Matthias Wahlisch, Mark Palkow</i>	

Table of Contents

Delivery of H264 SVC/MDC streams over Wimax and DVB-T networks.....	74
<i>Victor Domingo Reguant, Francesc Enrich Prats, Ramon Martín De Pozuelo, Francesc Pinyol Margalef, Gabriel Fernández Ubierno</i>	
QUALITY ASSESSMENT OF 3D VIDEO IN RATE ALLOCATION EXPERIMENTS	78
<i>A. Tikanmaki, A. Gotchev, A. Smolic, K. Muller</i>	
NETWORKING HOME APPLIANCES WITH ADAPTERS AND UPNP.....	82
<i>Arto Laikari, Juha Koivisto</i>	
DESIGN AND IMPLEMENTATION OF EPG (ELECTRONIC PROGRAM GUIDE) SERVICE PLATFORM IN T-DMB.....	86
<i>Gwang Soon Lee, Kwang Yong Kim, Soo In Lee</i>	
FIELD TRIALS AND TEST RESULTS OF PORTABLE DVB-T SYSTEMS WITH TRANSMIT DELAY DIVERSITY	90
<i>R. Di Bari, M. Bard, J. Cosmas, R. Nilavalan, K. K. Loo, H. Shirazi, K. Krishnapillai</i>	
EVALUATION OF UPNP QOS FRAMEWORK PERFORMANCE IN WIRELESS LAN	94
<i>Jukkapekka Laulajainen, Pekka Perälä, Arto Laikari</i>	
THE COMPONENTS FOR INTEGRATED EMBEDDED SYSTEM PROTOTYPING	98
<i>Husni Teja Sukmana, Jeong B Lee, Jae S Yang, Hyung W Han, Yong J Jung</i>	
A NOVEL TIME DELAY TRACKING SCHEME FOR GALILEO L1 OPEN SERVICE SYSTEMS.....	102
<i>Seungsoo Yoo, Sun Yong Kim, Seokho Yoon</i>	
Synchronization architecture for DVB-H seamless handover	106
<i>Alejandro López González, Jordi Mas Bundio, Gabriel Fernández Ubierno</i>	
AN AUTOMATIC SYSTEM FOR REAL-TIME VIDEO-GENRES DETECTION USING HIGH-LEVEL-DESCRIPTORS AND A SET OF CLASSIFIERS.....	110
<i>Ronald Glasberg, Sebastian Schmiedeke, Pascal Kelm, Thomas Sikora</i>	
LOW DECODING COMPLEXITY VIDEO STREAMS FOR PORTABLE VIDEO PLAYERS	114
<i>Paulo J. Cordeiro, Juan Gomez-Pulido, Pedro A. Assuncao</i>	
IMPROVING BROADCAST CELL HANDOVER PERFORMANCE BY THE USE OF AN ADDITIONAL INTERACTIVITY CHANNEL	117
<i>Gunther May</i>	
A PEER MUTUAL AUTHENTICATION METHOD ON SUPER PEER BASED PEER-TO-PEER NETWORK.....	121
<i>Byeong-Thaek Oh, Sang-Bong Lee, Ho-Jin Park</i>	
AUTO FLASH PERFORMANCE TEST USING EXPOSURE ACCURACY	125
<i>Kwang Yeol Park, Hyung Ju Park, Young Ho Son, Dong Hwan Har</i>	
CORRELATION TEST BETWEEN DIGITAL CAMERA PARAMETERS AND VISUAL NOISES	129
<i>Hyung Ju Park, Kwang Yeol Park, Dong Hwan Har</i>	
PERSONALIZED DMB BI-DIRECTIONAL SERVICE SYSTEM.....	133
<i>Heekyung Lee, Ji Hoon Choi, Joo Myoung Seok, Minsik Park, Han-Kyu Lee</i>	
AN IMPLEMENTATION OF USER-PARTICIPATED INTERACTIVE IPTV SERVICE SYSTEM	137
<i>Il Kyun Park, Seung Hun Oh, Sim Kwon Yoon, Ho Young Song</i>	
SVG DEPLOYMENT ON EMBEDDED LINUX SYSTEM.....	140
<i>Nicholas Yun, Fredy Yanardi</i>	
A NETWORK APPROACH FOR COMMUNAL ACCESS SERVICES.....	144
<i>Jorge Mamede, Rui Moreira, Bruno Oliveira, Vítor Silva</i>	
TIME ATTENDANCE SYSTEM WITH MULTISTATION AND WIRELESS COMMUNICATIONS.....	149
<i>Pedro Simao, Jose Fonseca, Vasco Santos</i>	

Table of Contents

AUDIENCE MEASUREMENT TECHNOLOGIES FOR USER CENTRIC MEDIA	153
<i>Federico Álvarez , Damien Alliez , Carlos Alberto Martín , José Manuel Menéndez , Guillermo Cisneros</i>	
AN INTEGRATED SOLUTION FOR HOME AUTOMATION	157
<i>G. Giorgetti, E. Gambi, S. Spinsante, M. Baldi, S. Morichetti, I. Magnifico</i>	
ANALYSIS AND QUALITY ASSESSMENT OF PEER-TO-PEER IPTV SYSTEMS	161
<i>Udo R. Krieger, Ronny Schweißinger</i>	
SCALABLE CONTENT DELIVERY OVER P2P CONVERGENT NETWORKS	165
<i>Theodore Zahariadis, Olimpiu Negru, Federico Álvarez</i>	
MAXIMUM RELIABILITY K-HOP MULTICAST STRATEGY I TREE NETWORKS	169
<i>Mugurel Ionut Andreica, Icolae Tapus</i>	
TILING EFFECT IN QUALITY ASSESSMENT FOR HIGH DEFINITION DIGITAL TELEVISION	173
<i>Juan Pedro López, Martín Díaz, David Jiménez, José Manuel Menéndez</i>	
SMART SORTING OF H.264/AVC ENCODED SEQUENCES FOR APPLICATIONS OVER UMTS NETWORKS	177
<i>Luca Superiori, Markus Rupp</i>	
AN EXTENSIBLE SCHEME FOR DIRECT SEARCHING IN AUDIOVISUAL ARCHIVES: THE DIVAS SYSTEM	181
<i>Nikos Achilleopoulos, Christos Theoharatos, Fotis Andritsopoulos, Serafeim Papastefanos</i>	
A TV DIGITAL ASSETS INTERCHANGE FRAMEWORK BASED ON EMERGING STANDARDS	185
<i>Rubén Tous, Jaime Delgado, Anna Carreras, Eva Rodríguez</i>	
A SIMPLE TIME DOMAIN PSSS-MIMO FOR HOME NETWORKS	189
<i>Horst Schwetlick, Alexander Huhn</i>	
CUSTOMER-CENTRIC MEASUREMENTS ON MOBILE PHONES	193
<i>Almudena D'Iaz, Pedro Merino, F. Javier Rivas</i>	
ADVANCED VIDEO ENCAPSULATION FORMATS FOR DVB-H BROADCASTING	197
<i>Martín Díaz Cuesta, Ana María Gómez Martín, Juan Pedro López Velasco, José Manuel Menéndez García</i>	
IMPLEMENTING FAULT HIERARCHY TO TRACE FAILURES IN HOME GATEWAYS	201
<i>S. Ramanathan, C. Lac</i>	
GAMES@LARGE GRAPHICS STREAMING ARCHITECTURE	205
<i>Itay Nave, Haggai David, Alex Shani, Yoav Tzruya, Arto Laikari, Peter Eisert, Philipp Fechteler</i>	
SECURITY SOLUTIONS IN VOIP APPLICATIONS: STATE OF THE ART AND IMPACT ON QUALITY	209
<i>Susanna Spinsante, Ennio Gambi, Emanuele Bottegoni</i>	
STEREOSCOPIC OUTPUT AND NOVEL INTERACTION CONCEPTS FOR THE IAVAS I3D PLAYER	213
<i>Cihan Altinay, Uwe Kuhhirt</i>	
USER INTERFACE TO INPUT IN PROPORTION TO FINGERTIP PRESSURE	217
<i>Takako Nonaka, Satoshi Saino, Masato Shimano, Tomohiro Hase</i>	
INTERACTIVE GREEN STREET ENHANCEMENT USING LIGHT DEPENDENT SENSORS AND ACTUATORS	220
<i>Ivo Wouters, Wei Chen, Bart Van Oorschot, Wina Smeenk</i>	
AN UNEQUAL ERROR PROTECTION SCHEME FOR OBJECT BASED VIDEO COMMUNICATIONS	223
<i>S. Nasir, S. Worrall, M. Mrak, A. M. Kondoz</i>	

Table of Contents

A SCALABLE SOFTWARE DEFINED RADIO RECEIVER FOR VIDEO AND AUDIO BROADCASTING ON PERSONAL COMPUTERS.....	227
<i>Piotr Szegvari, Christian Hentschel, Alexander Roy</i>	
OHAS: OPEN HOME AUTOMATION SYSTEM	231
<i>Rune Torbensen</i>	
A C COMPILER BASED METHODOLOGY FOR IMPLEMENTING AUDIO DSP APPLICATIONS ON A CLASS OF EMBEDDED SYSTEMS.....	235
<i>Miodrag Djukic, Nenad Cetic, Jelena Kovacevic, Miroslav Popovic</i>	
EFFICIENT MOBILE MUSEUM GUIDANCE SYSTEM USING AUGMENTED REALITY	239
<i>J Ihyun Oh, Moon-Hyun Lee, Hanhoon Park, J Ong-Il Park, J Ong-Sung Kim, Wookho Son</i>	
AUDIO-VISUAL FINGERPRINTING AND CROSS-MODAL AGGREGATION: COMPONENTS AND APPLICATIONS	243
<i>Peter Dunker, Matthias Gruhne</i>	
DIGITAL TRANSMISSION OF MULTIMEDIA STREAMS OVER LEGACY COAX CABLE NETWORKS.....	247
<i>Michal Duzynski, Sergio Guillen Servent, Mario Foerster, Petra Nauber, Uwe Schelinski, Michael Scholles</i>	
IN-VIVO WIRELESS CAPSULE FOR HEALTH MONITORING	250
<i>Lin Lin, Kai-Juan Wong, Su-Lim Tan, Soo-Jay Phee</i>	
DISTRIBUTED IPTV SYSTEM FOR PERSONAL BROADCASTING SERVICE.....	254
<i>Byongkwon Moon, Byung Tak Lee, Sung Yong Lee, Jae Chan Shim, Ho Young Song</i>	
Hardware/Software Solution for High Precision Defect Correction in Digital Image Sensors.....	257
<i>Angelo Bosco, Arcangelo Bruna, Filippo Naccari, Ivana Guarneri</i>	
RELIABLE AND EFFICIENT ADVERTISEMENTS DELIVERY PROTOCOL FOR USE ON WIRELESS BILLBOARD CHANNELS.....	261
<i>Zhanlin Ji, Ivan Ganchev, Mairtin O'droma</i>	
DETECTION OF DEVICE MOVEMENT FOR OPERATING USER INTERFACE USING OPTICAL FLOW	265
<i>Ryosuke Kokaji, Takako Nonaka, Tomohiro Hase</i>	
MOBILE WEB SERVER FOR ELDERLY PEOPLE MONITORING.....	268
<i>Sérgio M. M. Faria, Telmo R. Fernandes, Filipe S. Perdigoto</i>	
RRMAC: A SENSOR NETWORK MAC FOR REAL TIME AND RELIABLE PACKET TRANSMISSION	272
<i>Jungsook Kim, Jaehan Lim, Christopher Pelczar, Byungtae Jang</i>	
SECURE SMART CARD READER DESIGN	276
<i>Rafael Martínez-Peláez, Francisco Rico-Novella, Cristina Satizábal</i>	
A ROBUST COARSE SYMBOL TIMING SYNCHRONIZATION FOR OFDM SYSTEMS IN MULTI-PATH FADING CHANNEL.....	279
<i>Seung Ho Son, Joon Tae Kim</i>	
Estimation of Sound Direction for Improved Interaction of Entertainment Dolphin Robots	282
<i>Daejung Shin, Seung You Na, Jin Young Kim, Seong-Joon Baek, So Hee Min</i>	
ZIGBEE-BASED IR REMOTE CONTROL REPEATER AND ITS CONTROL MESSAGE FRAME FORMAT	286
<i>Jinsoo Han, Intark Han, Kwang-Roh Park</i>	
DVB-H TRANSMIT DIVERSITY: EVALUATION IN ENVIRONMENTS AND RESULTS.....	290
<i>Mikko Oksanen, Irek Defee</i>	

Table of Contents

ESTIMATION FOR EMBEDDED OEM PROJECTS	294
<i>Kousik Sankar R., Raman Venkatachar R.</i>	
SOFTWARE/HARDWARE CO-DESIGN OF A VEHICLE TRAJECTORY MONITORING SYSTEM	298
<i>Chia-Hung Lien, Po-Tsun Chen, Ying-Wen Bai</i>	
NOTIFICATIONS: SIMPLE AND POWERFUL ENHANCEMENT FOR SERVICES OVER DVB-H	302
<i>Adrian Hornsby, Imed Bouazizi, Irek Defee</i>	
COMPACT FULL HD DIGITAL MOVIE CAMERA WITH H.264 CODEC IN SINGLE-CHIP	306
<i>Yasuhachi HAMAMOTO, Kan-Ichi KOYAMA, Shigeyuki OKADA, Haruhiko MURATA, Masahiko NISHIKAWA, Nobuhiko ITII</i>	
WIRELESS TECHNOLOGY APPLIED TO STIMULATION SYSTEMS FOR AUDITORY DEFICIT CHILDREN	309
<i>Bellido Outeiriño, F. J. De La Cruz Fernández, J. L. Torres Roldán, M. Moreno Muñoz</i>	
TIME SHARING SYSTEM FOR IN-HOME ELECTRIC APPLIANCES USING SIMPLE NETWORK TIME PROTOCOL	312
<i>Yuta Uesugi, Takako Nonaka, Tomohiro Hase</i>	
CLICK2MOVIE: PERSONAL-CUSTOMIZED CONTENT AUTHORIZING SERVICE IN IPTV PLATFORM	315
<i>Nacwoo Kim, Jaehoon Kim, Sanghyeun Lee, Hoyoung Song</i>	
A High Performance Motion Vector Processor IP Design for H.264/AVC	319
<i>Kiwon Yoo, Seungho Park, Hyunsuk Ko, Kwanghoon Sohn</i>	
Hardware Architecture for Real-Time HD(1920×1080@60fps) H.264/AVC Intra Prediction	323
<i>Seung Ho Park, Jae Hun Lee</i>	
Editing Methods in High Definition MPEG-2 Transport Streams	324
<i>Kousik Sankar</i>	
IMAGE ENHANCEMENT USING PIECEWISE TRANSFER FUNCTIONS WITH SEGMENTATIONS	328
<i>Chih-Tsung Shen, Ping-Hsien Lin, Chun-Cheng Lin, Hsu-Chun Yen</i>	
SERVICE CONTINUITY FOR AUDIO VISUAL SERVICE	332
<i>Wong Sau Peng, Kelvin Choy Chuong Wen, Tan Su Wei, Norliza Mohd. Zaini, Ettikan Kandasamy Karuppiah</i>	
VIDEO ARCHITECTURE AND REAL-TIME LIGHTING TECHNOLOGY FOR TANGIBLE TELECONFERENCE	336
<i>Sae-Woon Ryu, Sang-Hwa Lee, Jong-Il Park</i>	
IMPLEMENTATION OF A METADATA ANALYZER BASED ON THE EXPRESSIVE MULTISENSORY SYSTEM FOR THE UBIQUITOUS HOME	340
<i>Sangwook Park, Jung Tae Kim, Jonghyun Jang, Eui-Hyun Paik</i>	
INTERACTIVE RICH MEDIA PLAYER BASED ON MPEG-4 LASer	344
<i>Injae Lee, Jihun Cha, Kyungae Moon, Hankyu Lee, Jinwoo Hong</i>	
A STUDY ON SESSION MANAGER FOR SMART HOME ENVIRONMENT	348
<i>Taein Hwang, Hojin Park, Jin Wook Chung</i>	
INTRODUCTION TO UNIVERSAL PLUG AND PLAY CONTENT SYNCHRONIZATION SERVICE	350
<i>Wonseok Kwon</i>	
Emotion-aware technologies for consumer electronics	354
<i>Yuan Gu, Su-Lim Tan, Kai-Juan Wong, Moon-Ho Ringo Ho, Li Qu</i>	
FAULT TOLERANT MPEG-4 DIGITAL VIDEO RECORDER	358
<i>Jaegeun Oh, Myeongjin Cho, Peter Lee, Seon Wook Kim</i>	

Table of Contents

Synchronization and Channel Equalization for Upstream Cable Modem	362
<i>Youngje Kim, Yogtae Kim, Yongwook Lee, Wangrok Oh, Whanwoo Kim</i>	
A NOVEL MULTI-SYMBOL DIFFERENTIAL DETECTION BASED ON SYMBOL ERROR POSITION ESTIMATION AND COMPENSATION FOR USE IN T-DMB SYSTEM	366
<i>Soon-Chan Kwon, Won-Suk Choi, Jong-Soo Seo</i>	
IMPROVED BLOCK TRUNCATION CODING FOR COLOR IMAGE COMPRESSION IN LCD OVERDRIVE	370
<i>Jong-Woo Han, Yeo-Jin Yoon, Tae-Shick Wang, Min-Cheol Hwang, Sung-Jea Ko</i>	
PROVISION OF THE MOBILE VIDEO CONFERENCE SYSTEM FOR THE UBIQUITOUS HOME NETWORK.....	374
<i>Hoon-Ki Lee, Jung-Tae Kim, Jong-Hoon Lee, Eui-Hyun Paik</i>	
Adaptive Service Rate for Soft Handoff Cellular CDMA Systems over Nakagami-m Fading Channels	378
<i>Tsung-Hua Tsai, Tsan-Ming Wu</i>	
EXPERIMENTS ON MOBILE SINK APPLICATION IN ZIGBEE NETWORKS	382
<i>Taehong Kim, Sukbin Seo, Chong Poh Kit, Youngsoo Kim, Seong-Eun Yoo, Daeyoung Kim</i>	
EFFICIENT TRANSPORT OF IP FLOWS OVER IEEE802.11 WIRELESS MESH NETWORKS.....	386
<i>Tiziano Inzerilli, Roberto Cusani, Gabriele Tamea</i>	
PERSONAL NETWORKS AND MULTIMEDIA RENDERING	390
<i>Martin Botteck, Bernd Steinke, Kevin Müller, Jonas Hermann</i>	
A REACTIVE VERTICAL HANDOVER APPROACH FOR WIFI-UMTS DUAL-MODE TERMINALS	394
<i>Tiziano Inzerilli, Anna Maria Vegni</i>	
MODELING OF THE DYNAMICS OF WIRELESS IN-HOUSE CHANNELS	398
<i>Beatriz Aznar, Ruediger Kays, Wolfgang Endemann</i>	
PERSONALIZED BROADCASTING SERVICE AND SYSTEM IN T-DMB	402
<i>Minsik Park, Hyun Cheol Kim, Hee Kyung Lee, Han-Kyu Lee, Jin Woo Hong</i>	
AN XML-BASED SOFTWARE PLATFORM FOR DVB-H AND IP DATACAST WITH FULL JAVA-LOGIC CAPABILITY	406
<i>Marius Spika</i>	
A PACKET/FRAME SYNC DETECTOR BASED ON STATISTICAL MODE WITH APPLICATION TO WIRELESS-USB.....	410
<i>R. Simon Sherratt, Junaid R. Khan, Oswaldo Cadenas</i>	
A TV-ANYTIME METADATA APPROACH TO TV PROGRAM RECOMMENDATION FOR GROUPS*	414
<i>Ricardo Tubío, Rafael Sotelo, Yolanda Blanco, Martín López, Alberto Gil, José Pazos, Manuel Ramos</i>	
PROBING BASED WIRELESS CHANNEL BANDWIDTH ESTIMATION AND ITS APPLICATION TO VIDEO STREAMING OVER WIRELESS NETWORKS.	417
<i>Hyeong-Min Nam, Kyung-Seok Shin, Jae-Yun Jeong, Seong-Jun Bae, Sung-Jea Ko</i>	
DESIGN AND IMPLEMENTATION OF A SCANNER WITH STITCHING OF MULTIPLE IMAGE CAPTURE.....	421
<i>Ying-Wen Bai, Chien-Chung Cheng</i>	
Detection of digital forgeries using an image interpolation from digital images.....	425
<i>Yong-In Yun, Jung-Beom Lee, Da-Un Jung, Dong-Hwan Har, Jong-Soo Choi</i>	
DYNAMIC CODE DEPLOYMENT ENABLES FAULT DIAGNOSIS IN THE CONNECTED HOME.....	429
<i>P. C. Utton</i>	
IMAGE IMPROVEMENT METHOD FOR LCD FRAME RATE CONTROLLER*	433
<i>Ya-Hsin Hsueh, Jian-De Lee</i>	

Table of Contents

ADAPTIVE INTERPOLATION BASED MOTION VECTOR RECOVERY ALGORITHM FOR VIDEO TRANSMISSION	437
<i>Pei-Jun Lee, Kun-Dar Tsai, Wen-June Wang</i>	
DESIGN AND IMPLEMENTATION OF A REMOTELY CONTROLLABLE UPS OUTLET SYSTEM.....	439
<i>Chia-Hung Lien, Jen-Chieh Lin, Ying-Wen Bai</i>	
FAST INTRA-MODE DECISION USING INTER-FRAME CORRELATION FOR H.264/AVC.....	443
<i>Hyunsuk Ko, Kiwon Yoo, Jungdong Seo, Kwanghoon Sohn</i>	
AUTOMATIC ROOM LIGHT INTENSITY DETECTION AND CONTROL USING A MICROPROCESSOR AND LIGHT SENSORS	447
<i>Ying-Wen Bai, Yi-Te Ku</i>	
REMOTE POWER ON/OFF CONTROL AND CURRENT MEASUREMENT FOR HOME ELECTRIC OUTLETS BASED ON A LOW-POWER EMBEDDED BOARD AND ZIGBEE COMMUNICATION.....	451
<i>Ying-Wen Bai, Chi-Huang Hung</i>	
SHARE-E: EXPLOITING PEER-TO-PEER STREAMING IN PERIODIC BROADCASTING OF VIDEOS FOR HETEROGENEOUS CLIENTS.....	455
<i>Dewi Khairani, Jin B. Kwon</i>	
AN IMPROVED DESIGN OF A WIRELESS KEYBOARD POWERED BY SOLAR CELLS AND A LARGE CAPACITOR.....	459
<i>Ying-Wen Bai, Ming-Yuan Yang</i>	
A 40 MHZ Dedicated Hardware H.264/A VC Video Encoder with the Reducing Memory Access Scheme.....	463
<i>Sukho Lee, Seongmo Park, Jinho Han, Nakwoong Eum, Jongwon Park</i>	
SINGLE STAGE SWITCHING AUDIO POWER AMPLIFIER AND POWER SUPPLY	467
<i>Carlos Ferreira, Beatriz Borges, Hugo Ribeiro, Hugo Marques</i>	
JOINT EFFICIENCY AND PERFORMANCE ENHANCEMENT OF MULTIBAND OFDM ULTRA-WIDEBAND (WIMEDIA) SYSTEMS BY APPLICATION OF LDPC CODES	471
<i>Stefan Nowak, Oliver Hundt, Ruediger Kays</i>	
SCALABLE MULTIPLE DESCRIPTION VIDEO CODING FOR ERROR-RESILIENT TRANSMISSION OVER HYBRID NETWORKS.....	475
<i>M. Stoufs, D. Bakker, J. Barbarien, A. Munteanu, P. Schelkens</i>	
A DYNAMIC MANAGEMENT SCHEME FOR AN EMBEDDED TERMINAL PLATFORM.....	479
<i>Young-Kuk Hongo, Seok-Bae Son, Eunho Kim, Jung Joon Kim</i>	
ADAPTIVE BUFFERING SCHEME FOR STREAMING SERVICE IN INTERSYSTEM HANDOVER BETWEEN TERRESTRIAL AND SATELLITE SYSTEMS.....	483
<i>Tae Chul Hong, Kun Seok Kang, Do-Seob Ahn, Ho-Jin Lee</i>	
Voltage Gain Control of a VGA in a UWB Receiver	487
<i>Kyu-Min Kang, Sung-Woo Choi, Sang-In Cho, Sang-Sung Choi</i>	
A Novel Highlight Event Decision Approach for Baseball Videos	491
<i>Yih-Ming Su, Shu-Jiun Liang</i>	
A Power Saving System based on Energy-aware Control Elements in Ubiquitous Home Network.....	493
<i>Hyun Woo Oh, In Tark Han, Kwang Roh Park</i>	
REDUCING INTRICACY OF 3D SPACE FOR 3D CAMERA	497
<i>Mannan S. M., Aamir S. Malik, Tae-Sun Choi</i>	
REAL-TIME DETECTION OF FOREIGN OBJECTS USING X-RAY IMAGING FOR DRY FOOD MANUFACTURING LINE.....	501
<i>Jae-Sung Kwon, Jong-Min Lee, Whoi-Yul Kim</i>	

Table of Contents

A HIGH SPEED DISK IMAGING SYSTEM..... <i>Sang Su Lee, Un Sung Kyong, Do Won Hong</i>	505
BUS GUARDIAN DESIGN FOR AUTOMOBILE NETWORKING ECU NODES COMPLIANT WITH FLEXRAY STANDARDS..... <i>Gang-Neng Sung, Chun-Ying Juan, Chua-Chin Wang</i>	508
A Novel Directional Median Filter Based on Fuzzy Reasoning <i>Chung-Chia Kang, Wen-June Wang</i>	512
HIGH MULTIPLICITY SCHEDULING OF FILE TRANSFERS WITH DIVISIBLE SIZES OF MULTIPLE CLASSES OF PATHS..... <i>Mugurel Ionut Andreica, Icolae Tapus</i>	516
USER-CENTRIC REQUIREMENTS AND DESIGN OF A TESTBED FOR IDTV IN ALPINE RURAL AREAS..... <i>E. Bensi, Giuseppe Franco, M. Anastassova, O. Mayora-Ibarra</i>	520
Enhanced Upstream Scheduling Algorithm for Variable Bit Rate VoIP Service over Hybrid Fiber Coaxial Network <i>Seung-Eun Hong, Wooyong Lee</i>	523
DIRECTORY-LESS INDOOR POSITIONING FOR WLAN INFRASTRUCTURES EXTENDED ABSTRACT <i>Karl-Heinz Krempels, Martin Krebs</i>	527
Improving MIMO-OMFDM-Based DVB-H Systems Performance Using LDPC Codes <i>Omar Daoud, Scott Lee Linfoot</i>	529
SIMPLE ARCHITECTURE AND PERFORMANCE EFFICIENT REVERSE FAST STAGGERED BROADCASTING SCHEME FOR VIDEO-ON-DEMAND SYSTEMS <i>Hee Jeong, Jong-Woo Hong, Eun-Jo Lee, Sung-Kwon Park</i>	533
OPTIMAL DETECTION CONSIDERING AGC EFFECTS IN MULTIPLE ANTENNA SYSTEMS..... <i>Myung-Soon Kim, Gweon-Do Jo, Jin-Up Kim</i>	537
COCKTAIL INTERFACE: SERVER-BASED USER INTERFACE FOR SEAMLESS ACCESS TO VARIOUS KINDS OF DIGITAL CONTENT <i>Hiroko Sueda, Arito Mochizuki, Isshu Nakajima, Youichi Horry</i>	541
A STUDY OF SIP BASED INSTANT MESSAGING FOCUSING ON THE EFFECTS OF NETWORK TRAFFIC GENERATED DUE TO PRESENCE <i>Finnian Mckeon</i>	545
A HIGH-PRECISION ALGORITHM FOR THE FORWARD AND INVERSE MDCT USING THE UNIFIED RECURSIVE ARCHITECTURE..... <i>Sheau-Fang Lei, Shin-Chi Lai, Yin-Tsung Hwang, Ching-Hsing Luo</i>	549
ESGATE: SECURE EMBEDDED GATEWAY SYSTEM FOR A WIRELESS SENSOR NETWORK <i>Juhan Kim, Dooho Choi</i>	553
MYTV 2.0: SEMANTIC REASONING AND WEB 2.0 FOR MOBILE TV <i>Ana Fernández Vilas, Rebeca Díaz Redondo, José Pazos Arias, M. Ramos Cabrer, Jorge García Duque, Ricardo Tubío Pardavila</i>	557
T-MAESTRO: PERSONALIZED LEARNING FOR IDTV <i>Rebeca P. Díaz Redondo, Ana Fernández Vilas, Marta Rey López, José J. Pazos Arias, Alberto Gil Solla, Yolanda Blanco Fernández</i>	561
HIGH-USABILITY DEBLURRING FILTER <i>Masayuki Tanaka, Kenichi Yoneji, Masatoshi Okutomi</i>	565

Table of Contents

INTRODUCING SMART PACKAGING IN RESIDENTIAL NETWORKS TO PREVENT MEDICINE MISUSE.....	567
<i>Martín López-Nores, José J. Pazos-Arias, Jorge García-Duque, Yolanda Blanco-Fernández, Manuel Ramos-Cabrer</i>	
Joint Topology-Transparent Broadcast Scheduling and MDS Erasure Coding in Multihop TDMA Ad Hoc Networks.....	570
<i>Yi-Sheng Su</i>	
PERSONAL TELEVISION: A CROSSMODAL ANALYSIS APPROACH.....	574
<i>Peter Dunker, Matthias Gruhne, Sebastian Sturtz</i>	
PERSONAL TELEVISION: A SYNCHRONIZED METADATA SYSTEM.....	578
<i>Peter Dunker, Uwe Kuhhirt</i>	
ACTIVE AND PERSONALIZED EXPERIENCE OF SOUND AND MUSIC CONTENT	582
<i>Antonio Camurri, Gualtiero Volpe</i>	
A NEW WAY OF PAPR REDUCTION FOR OFDM SYSTEM.....	586
<i>Yafei Hou, Tomohiro Hase</i>	
OFDM TRANSMITTER STRUCTURE WITH LOWPAPR	590
<i>Yafei Hou, Tomohiro Hase</i>	
G-JSIM - A GUI TOOL FOR WIRELESS SENSOR NETWORKS SIMULATIONS UNDER J-SIM.....	593
<i>Paulo A. C. S. Neves, Íliri D. C. Veiga, Joel J. P. C. Rodrigues</i>	
A NOVEL APPROACH TO COMMUNICATIONS FOR DVB-T AND DVB-H.....	597
<i>Scott Linfoot</i>	
OFDM SYSTEM FOR CAPTURING COLLISION.....	601
<i>Yafei Hou, Tomohiro Hase</i>	
AN IMPROVED IMPLEMENTATION METHOD OF THE GOLD SEQUENCE GENERATOR	605
<i>Soo Yun Hwang, Gi Yoon Park, Hyeong Jun Park, Kyoung Son Jhang</i>	
STUDY ON GEOGRAPHICAL DISTRIBUTION AND AVAILABILITY OF BITTORRENT PEERS SHARING VIDEO FILES	609
<i>Paulo Salvador, Antonio Nogueira</i>	
MOBILE HDTV AT 140 KM/H.....	613
<i>Nuno Coelho, Nelson Cabral, David Marques, Antonio Navarro</i>	