

Detailed Conference Schedule

SESSION 1.1: Digital Rights Management

Date: January 11, 2008

Time: 10:30 - 12:10

Location: N258

Chair: [Akiomi Kunisa](#), *SANYO Technology Center*

Co-Chair: [Richard Doherty](#), *Envisioneering*

10:30 **1.1-1** A PROPOSAL ON VIDEO EDITING SYSTEM COPING WITH RIGHTS INHERITANCE MANAGEMENT FOR SECONDARY CONTENT
Yuan-Kang Wang, *Graduate School of GITS, Waseda University, Japan*; Akiko Seki, *GITI, Waseda University, Japan*; Wataru Kameyama, *Graduate School of GITS, Waseda University, Japan*

10:50 **1.1-2** AUDIO DRM CONVERSION BETWEEN DIFFERENT DRM CONTENT FORMATS
Yeonjeong Jeong, *Electronics and Telecommunications Research Institute, South Korea*

11:10 **1.1-3** PROTECTION OF WINDOW MEDIA VIDEO BY FAKED FOURCC
Jihyun Park, *Electronics and Telecommunications Research Institute, South Korea*

11:30 **1.1-4** SECURE FRAMEWORK OF AUDIOVISUAL CONTENT BASED ON BI-DIRECTIONAL AUTHENTICATION FOR HARD DISK DRIVE AND OTHER INTELLIGENT STORAGE
Yoshihiro Hori, Kenji Taima, *SANYO Electric Co.,Ltd., Japan*

11:50 **1.1-5** GLOBAL TIMED-RELEASE ENCRYPTION
Maki Yoshida, Toru Fujiwara, *Osaka University, Japan*

SESSION 1.2: Synchronization

Date: January 11, 2008

Time: 10:30 - 12:10

Location: N260

Chair: [Simon Sherratt](#), *The University of Reading*

Co-Chair: [Paul Snopko](#), *Techwell, Inc.*

10:30 **1.2-1** A ROBUST SYMBOL SYNCHRONIZATION METHOD FOR TERRESTRIAL-DMB RECEIVERS IN HIERARCHICAL MODULATION MODE
Joon Tae Kim, Jong Kyu Oh, *Konkuk University, South Korea*; Yang Soo Kim, Jong Soo Lim, *ETRI, South Korea*

10:50 **1.2-2** A REDUCED COMPLEXITY DOUBLE CORRELATION ALGORITHM FOR FRAME SYNCHRONIZATION
Kyunchan Shin, Se Bin Im, *Sungkyunkwan University, South Korea*; So-Ra Park, *ETRI, South Korea*; Hyung-Jin Choi, *Sungkyunkwan University, South Korea*

11:10 **1.2-3** DETECTION OF HIERARCHICALLY-MODULATED DATA FOR ADVANCED T-DMB RECEIVERS
Sangdoon Ha, Wan-Jin Kim, *Pusan National University, South Korea*; Ji-Hyun Kim, *Nex1 Future, South Korea*; Hyoung-Nam Kim, *Pusan National University, South Korea*; Hyoungsoo Lim, *ETRI, South Korea*

11:30 **1.2-4** DISTRIBUTED SPACE-TIME CODING AND EQUALIZATION FOR COOPERATIVE CELLULAR COMMUNICATION SYSTEM
Jian Xu, JinYong Choi, Jong-Soo Seo, *Yonsei University, South Korea*

11:50 **1.2-5** 3.1 GHZ TO 6 GHZ UWB PULSE RADIO TRANSCEIVER FRONT END BASED ON SUPER-REGENERATION APPROACH
Muhammad Anis, Reinhard Tielert, *TU Kaiserslautern, Germany*

SESSION 1.3: Audio/Video Recording

Date: January 11, 2008

Time: 10:30 - 12:10

Location: N262

Chair: [Sorin Stan](#), *Philips Consumer Electronics*

Co-Chair: [Kei Yamashita](#), *Hitachi, Ltd.*

10:30 **1.3-1** PROVIDING ENTERTAINMENT BY CONTENT-BASED FILTERING AND REASONING IN INTELLIGENT RECOMMENDER SYSTEMS

	Yolanda Blanco-Fernández, José Juan Pazos-Arias, Alberto Gil-Solla, Manuel Ramos-Cabrer, Martín López-Nores, <i>University of Vigo, Spain</i>
10:50	1.3-2 TV-PROGRAM SELECTION WITH PERFORMER REPRESENTATIVE FACES FOR PERSONAL VIDEO RECORDER Masumi ISHIKAWA, Ryoma OAMI, Kyoji HIRATA, <i>NEC Corporation, Japan</i>
11:10	1.3-3 BEHAVIORS-BASED USER PROFILING AND CLASSIFICATION-BASED CONTENT RATING FOR PERSONALIZED DIGITAL TV NaYeon Kim, Eun Yi Kim, <i>Konkuk University, South Korea</i>
11:30	1.3-4 A FAST AND EFFICIENT HIGHLIGHT DETECTOR FOR SOCCER Bas Zoetekouw, Pedro Fonseca, <i>Philips Research, Netherlands</i> ; Ralf Funken, <i>Philips Applied Technologies, Netherlands</i>
11:50	1.3-5 SYSTEM DESIGN OF ADVANCED VIDEO NAVIGATION REINFORCED WITH AUDIBLE SOUND IN PERSONAL VIDEO RECORDING Onno Eerenberg, <i>Philips Research, Netherlands</i> ; Ronald M. Aarts, <i>Philips Research / Eindhoven University of Technology, Netherlands</i> ; Peter H.N. De With, <i>LogicaCMG / Eindhoven University of Technology, Netherlands</i>

SESSION 1.4: Video Transcoding & QoS

Date: January 11, 2008

Time: 10:30 - 12:10

Location: N264

Chair: [Peter deWith](#), *LogicaCMG Nederland / TU Eindhoven*

Co-Chair: [Saurabh Mathur](#), *Thomson Inc.*

10:30	1.4-1 A STUDY OF MPEG-2 TO H.264/AVC TRANSCODING WITH HALF-HORIZONTAL RESOLUTION Jun Xin, <i>Xilient Inc., United States</i> ; Anthony Vetro, <i>Mitsubishi Electric Research Labs, United States</i> ; Shun-ichi Sekiguchi, <i>Mitsubishi Electric Corporation, Japan</i>
10:50	1.4-2 INTER MODE CONVERSION OF H.264 TO MPEG-2 VIDEO WITH REDUCED COMPLEXITY Sergio Faria, <i>IPL/IT, Portugal</i> ; Sandro Moiron, <i>Instituto de Telecomunicacoes, Portugal</i> ; Pedro Assuncao, <i>IPL/IT, Portugal</i> ; Vitor Silva, <i>FCT - Universidade de Coimbra, Portugal</i> ; Antonio Navarro, <i>Universidade de Aveiro, Portugal</i>
11:10	1.4-3 CHANNEL-AWARE VIDEO STREAMING FOR MOBILE DEVICES OVER WIBRO NETWORK Jae-Yun Jeong, <i>Korea University, South Korea</i> ; Soo-Hyung Kim, <i>Samsung Electronics, South Korea</i> ; Seung-Jin Baek, Hye-Soo Kim, Sung-Jea Ko, <i>Korea University, South Korea</i>
11:30	1.4-4 STATISTICAL ANALYSIS AND DERIVATION OF INTRA MB MODE DECISION RULES FOR MPEG-2 TO H.264/AVC TRANSCODING Xingang Liu, <i>Yeungnam University, South Korea</i>
11:50	1.4-5 MPEG-21 ENABLED SVC ADAPTATION FOR MULTI-USER QOS-ADAPTIVE STREAMING Truong Cong Thang, Jung Won Kang, Haechul Choi, Jeong-Ju Yoo, <i>ETRI, South Korea</i>

SESSION 2.2: Networking: Protocols

Date: January 11, 2008

Time: 14:20 - 16:00

Location: N260

Chair: [Peter Corcoran](#), *National University of Ireland, Galway*

Co-Chair: [Bill Rowe](#), *WARowe Consultancy*

14:20	2.2-1 USING TCP-FEEDBACK TO OPTIMIZE TRANSCODING PERFORMANCE Richard Verhoeven, Dmitri Jarnikov, Johan Lukkien, <i>Eindhoven University of Technology, Eindhoven University of Technology, Netherlands</i>
14:40	2.2-2 SIMULATION AND IMPLEMENTATION OF VOICE-OVER-IEEE 802.15.4 LR-WPAN Eunchang Choi, <i>ETRI, South Korea</i>
15:00	2.2-3 REGION-BASED OVERLAY MULTICAST IN MOBILE AD HOC NETWORKS Yujin Lim, <i>University of Suwon, South Korea</i> ; Sanghyun Ahn, Hyun Yu, <i>University of Seoul, South Korea</i>

15:20 **2.2-4** AN END-TO-END QOS ARCHITECTURE FOR ENSURING THE RELIABLE DELIVERY OF BROADBAND APPLICATIONS
Teodor Buburuzan, *TU-Brunschweig, Germany*; Nikos Koutsouris, *National Technical University of Athens, Greece*; Krzysztof Loziak, *University of Science and Technology, Poland*

15:40 **2.2-5** CROSS-LAYER DESIGN FOR FAST TCP ACK-CLOCKING OVER WIMEDIA UWB NETWORKS
Jihyun Lee, *Kyungpook National University, South Korea*; Wonjung Lee, *LG Electronics, South Korea*; Hyungyu Park, *Kyungshik Lim, Kyungpook National University, South Korea*; Kwangil Lee, *Kyeongdeok Moon, Electronics and Telecommunication Research Institute, South Korea*

SESSION 2.3: Optical Storage: Present and Future

Date: January 11, 2008

Time: 14:20 - 16:00

Location: N262

Chair: [Kei Yamashita](#), *Hitachi, Ltd.*

Co-Chair: [Sorin Stan](#), *Philips Consumer Electronics*

14:20 **2.3-1** PRESERVING OUR DIGITAL HERITAGE
Barry M. Lunt, Feng Zhang, Daniel Hyatt, Matthew Linford, *Brigham Young University, United States*

14:40 **2.3-2** ERROR SECTOR INVENTORY ON OPTICAL DISC FOR DEFECT AVOIDANCE DURING RECORDING / PLAYBACK
Srinivas Rao Kudavelly, *Philips Electronics India Limited, India*

15:00 **2.3-3** DEVELOPMENT OF OPTICAL DISC SERVO SIMULATION BASED ON ACTUAL WAVEFORM DATA
Shinsuke Onoe, *Hitachi, Ltd., Japan*; Yoshinori Ishikawa, Motoyuki Suzuki, Akio Fukushima, *Hitachi, Ltd., Japan*

15:20 **2.3-4** PLAYBACK SIGNAL PROCESSING SYSTEM USING WAVEFORM CORRECTION FOR HIGH DENSITY OPTICAL DISC
Satoshi Michihata, Mitsuru Ishizuka, Hideo Yoshida, *Mitsubishi Electric Corporation, Japan*

15:40 **2.3-5** 4GOOD – TECHNOLOGY AND PROTOTYPE FOR A 4TH-GENERATION OMNI-PURPOSE OPTICAL DISC SYSTEM
Dietmar Hepper, *Thomson, Germany*

SESSION 2.4: Encoding Techniques

Date: January 11, 2008

Time: 14:20 - 16:00

Location: N264

Chair: [Aldo Morales](#), *Penn State Harrisburg*

Co-Chair: [Michael Isnardi](#), *Sarnoff Corporation*

14:20 **2.4-1** SYSTEM ARCHITECTURE OF H.264/AVC CODEC LSI FOR DIGITAL HD CAMCORDER
Keisuke Inata, Manabu Sasamoto, Tomoyuki Nonaka, Hironori Komi, *Consumer Electronics Laboratory, Hitachi, Ltd., Japan*

14:40 **2.4-2** REAL-TIME H.264 ENCODER WITH DEBLOCKING FILTER PARALLELIZATION
Tatsuji Moriyoshi, Shigeki Miura, *NEC Corporation, Japan*

15:00 **2.4-3** A NOVEL DESIGN APPROACH FOR H.264/AVC MOTION ESTIMATION ARCHITECTURES
Sebastian Lopez, Gustavo M. Callico, Felix Tobajas, Jose F. Lopez, Roberto Sarmiento, *University of Las Palmas de Gran Canaria, Spain*

15:20 **2.4-4** LOW COMPLEXITY H.264 INTRA MB CODING
Hari Kalva, Phil Kunzelmann, Rashad Jillani, Abhi Pandya, *Florida Atlantic University, United States*

15:40 **2.4-5** A HIERARCHICAL MODE DECISION METHOD FOR THE FAST H.264/AVC INTRAFRAME CODING
Jiantan Liu, Kook-yeol Yoo, *Yeungnam University, South Korea*

POSTER SESSION P1: 2.Poster (RF)

Date: January 11, 2008

Time: 14:20 - 16:00

Location: N256

Chair: [David Hutchison](#), *Texas Instruments*

Co-Chair: [Wolfgang Weltersbach](#), *NXP Semiconductors*

P1-1 SOFTWARE DEFINED AUTOMOTIVE RECEIVER FOR BROADCASTING SERVICES
Maja Sliskovic, *Harman/Becker Automotive Systems, Germany*

P1-2 FRAME BOUNDARY DETECTION FOR FULL-BAND SUPPORT IN MULTIBAND-OFDM SYSTEM
KIM YUN YOUNG, *SAMSUNG ELECTRONICS, South Korea*

P1-3 BEAMFORMER-BASED ACQUISITION IN MIMO-CDMA COMMUNICATION SYSTEMS
Sangchoon Kim, *Dong-A University, South Korea*

P1-4 WPAN PLATFORM ARCHITECTURE AND APPLICATION DESIGN FOR HANDSET
In-Whan Kim, *SK Telecom, South Korea*; Gu-Min Jeong, *Kookmin University, South Korea*; Ki-Dong Chung, *Busan National Univerisity, South Korea*

P1-5 IMPROVED BLIND CHANNEL ESTIMATION FOR OFDM SYSTEMS
Bangwon Seo, *ETRI, South Korea*

P1-6 ANALYSIS OF FPGA SOLUTIONS FOR BASE-BAND PROCESSING IN MULTI-CARRIER COMMUNICATION STANDARDS FOR CONSUMER APPLICATIONS
Sergio Saponara, *Department of Information Engineering, University of Pisa, Italy*; Nicola L'Insalata, *Consorzio Pisa Ricerche, CPR-TEAM, Italy*; Francesco Tosti, Luca Fanucci, Pierangelo Terreni, *Department of Information Engineering, University of Pisa, Italy*

P1-7 BIDIRECTIONAL INTERACTIVE CONTENTS PLAYER FOR TERRESTRIAL DIGITAL MULTIMEDIA BROADCASTING (T-DMB)
Won-Sik Cheong, Juhun Cha, MyungSeok Ki, Kyung Ae Moon, *ETRI, South Korea*

P1-8 NEW MEDIUM IDLE TIME VIA INDUSTRY PROTOCOL TYPE
Seong-hee Lee, *ETRI, South Korea*

P1-9 INITIAL ACQUISITION FOR NEXT GENERATION MB-OFDM UWB TRANSMISSION
Kyu-Min Kang, Sang-In Cho, Sang-sung Choi, *ETRI, South Korea*

P1-10 MIDDLEWARE ARCHITECTURE OF HYBRID DIGITAL CABLE RECEIVER FOR CABLE BROADCAST AND IPTV SERVICE BASED ON OCAP
Keumyong Oh, Youngmin Park, Sungjin Park, *Samsung Electronics, South Korea*

P1-11 A CIRCULAR BUFFERING ALGORITHM FOR HIDING CHANNEL ZAPPING DELAY IN A DIGITAL TELEVISION
Yoon-Hee Choi, Yeong Kyeong Seong, *Samsung Electronics, South Korea*

P1-12 PERFORMANCE OF AD-HOC WIRELESS NETWORK ON 2.4GHZ BAND IN REAL FIELDS
Noriyuki Kushiro, Makoto Katsukura, Masanori Nakata, Toshiyasu Higuma, Yoshiaki Ito, *Mitsubishi Electric Corp., Japan*; Kenji Ogaki, *Renesas Technology, Japan*

P1-13 ARCHITECTURE OF A NON-BINARY LDPC DECODER FOR THE NEXT GENERATION CODING SYSTEMS
Ion Adrian Voicila, *ETIS ENSEA/UCP/CNRS UMR 8051, France*; Pascal Urard, *STMicroelectronics, France*

P1-14 RFID CONNECTIVITY WITH STB FOR VIEWER IDENTIFICATION IN IPTV
Ted Jeong, *Myongji University, South Korea*; Hamid Jabbar, *S, South Korea*; Jun Hwang, *Seoul Woman's University, South Korea*; Humor Hwang, Gyungleen Park, *S, South Korea*

P1-15 A LOW POWER SOC ARCHITECTURE FOR THE V2.0+EDR BLUETOOTH
Jeonghun Kim, *Korea University, South Korea*; Kyongtae Moon, Jungwon Jeong, *Mewtel, South Korea*; Yunjeong Kim, Suki Kim, *Korea University, South Korea*

P1-16 POWER-GRID LOAD BALANCING BY USING SMART HOME APPLIANCES
Andrea Ricci, *University of Parma, Italy*; Brunetta Vinerba, Enrico Smargiassi, *Indesit Company S.p.A., Italy*; Iaria De Munari, *University of Parma, Italy*; Valerio Aisa, *Indesit Company S.p.A., Italy*; Paolo Ciampolini, *University of Parma, Italy*

P1-17 COMBINATIONAL SPREADING AND MODULATION TECHNIQUE FOR MOBILE SATELLITE DMB SERVICES
Sang Jin LEE, *YONSEI University, South Korea*

P1-18 IMPLEMENTATION OF THE ISO/IEC 18000-6 TYPE C PROTOTYPE READER
Ki-Hwan Suh, Yong-Gu Jo, Young-Gon Hong, Kyung Sik Son, Hyoung-Nam Kim, *Pusan National University, South Korea*

P1-19 DVB-H KEY MANAGEMENT SYSTEM FOR UMTS CAPABLE DEVICES
Daniel Diaz-Sanchez, Andres Marin, Florina Almenarez, Celeste Campo, *Universidad Carlos III, Spain*

SESSION 3.1: Special Healthcare I - Infrastructure for Home Healthcare

Date: January 11, 2008

Time: 16:20 - 18:00

Location: N258

Chair: [Bernard Fong](#), *Hong Kong Polytechnic University*

Co-Chair: [Peter Corcoran](#), *National University of Ireland, Galway*

16:20 **3.1-1 INVITED PAPER**
EMERGING EHEALTHCARE CONSUMER ELECTRONIC DEVICE SYSTEMS
Tsong-Ho Wu, *Telcordia Technologies, United States*

17:00 **3.1-2** AN ASSISTIVE HOME AUTOMATION AND MONITORING SYSTEM
Ferdinando Grossi, Valentina Bianchi, Guido Matrella, Ilaria De Munari, *University of Parma, Italy*; Paolo Ciampolini, *Dip. Ing. Informazione, University of Parma, Italy*

17:20 **3.1-3** A DIGITAL TELEVISION BASED SOLUTION FOR REMOTE HEALTH CARE OF RURAL PEOPLE
ennio gambi, susanna spinsante, damiano falcone, giorgio rascioni, *università politecnica delle marche, Italy*

17:40 **3.1-4** DESIGN OF A PERSONAL CARDIOVASCULAR MONITORING SYSTEM WITH ECG AND STETHOSCOPIC ANALYSIS
Sean Finn, *Electronic Engineering Department, National University of Ireland, Galway., Ireland*

SESSION 3.2: Reception and Interference

Date: January 11, 2008

Time: 16:20 - 18:00

Location: N260

Chair: [Uwe E. Kraus](#), *University of Wuppertal*

Co-Chair: [Wolfgang Weltersbach](#), *NXP Semiconductors*

16:20 **3.2-1 VIP**
INTERFERENCE TO DTV RECEPTION DUE TO NON-LINEARITY OF RECEIVER FRONT-ENDS
Charles Rhodes, *Life Fellow IEEE*

16:40 **3.2-2** A STUDY ON COOPERATIVE RECEPTION OF ONE SEGMENT ISDB-T
Takashi Okubo, Makoto Itami, *Tokyo University of Science, Japan*

17:00 **3.2-3** A NOVEL MOBILE NODE BASED ON OFDM FOR UBIQUITOUS NETWORKS
Sangchul Jung, Sekchin Chang, *The University of Seoul, South Korea*

17:20 **3.2-4** EFFICIENT DISCRETE-TIME BANDPASS SIGMA-DELTA MODULATOR FOR MULTISTANDARD WIRELESS APPLICATIONS
Chanyong Jeong, *Samsung Electro-Mechanics Co., Ltd., South Korea*; Yonghwan Kim, Soowon Kim, *Korea University, South Korea*

17:40 **3.2-5** DYNAMIC SCAN INITIATION FOR RESOURCE EFFICIENT OPERATION IN A 802.16E NETWORK
Jaesung Park, *Dept. of Internet Information Engineering, Suwon University, South Korea*; Yujin Lim, *Dept. of Internet Media, Suwon University, South Korea*; Sanghyun Ahn, *University of Seoul, South Korea*

SESSION 3.3: Special Session

Advanced Applications of Objective Video Quality Metrics and Methods, Part 1

Date: January 11, 2008

Time: 16:20 - 18:00

Location: N262

Chair: [Jorge E. Caviedes](#), *Intel Corporation*

Co-Chair: [Sanjit Mitra](#), *University of California, Santa Barbara*

16:20	3.3-1 NEW FULL-REFERENCE VISUAL QUALITY ASSESSMENT BASED ON HUMAN VISUAL PERCEPTION Seon-Oh Lee, Dong-Gyu Sim, <i>Kwangwoon University, South Korea</i>
16:40	3.3-2 REAL-TIME PROTOTYPE OF A ZERO-REFERENCE VIDEO QUALITY ALGORITHM Nitin Suresh, <i>Georgia Institute of Technology, United States</i> ; Pravin Mane, <i>VQ Tech, United States</i> ; Nikil Jayant, <i>Georgia Institute of Technology, United States</i>
17:00	3.3-3 STATISTICAL APPROACHES TO QUALITY ASSESSMENT FOR IMAGE RESTORATION Hiroyuki Takeda, Hae Jong Seo, Peyman Milanfar, <i>University of California at Santa Cruz, United States</i>
17:20	3.3-4 COLOR IMAGE QUALITY ASSESSMENT USING SPATIAL EXTENSION TO CIE DE2000 Shaohua Chen, Aladine Chetouani, A. Beghdadi, <i>University Paris XIII, France</i>
17:40	3.3-5 MULTI-SCALE AND SCALABLE VIDEO QUALITY ASSESSMENT Kalpana Seshadrinathan, Alan Bovik, <i>The University of Texas at Austin, USA</i>
18:00	3.3-6 VIP Bandlets for HDTV Video Processing Joan Bruna, <i>Let It Wave, France</i> , Stephane Mallat, <i>Ecole Polytechnique, France</i>

SESSION 3.4: Camera Based Image Enhancement

Date: January 11, 2008

Time: 16:20 - 18:00

Location: N264

Chair: [Sharon Peng](#), *Harman Consumer Group*

Co-Chair: [Marina Nicholas](#), *ST Microelectronics 12, rue Jules Horowitz*

16:20	3.4-1 DIRECTIONALLY FILTER BASED DEMOSAICING WITH INTEGRATED ANTIALIASING Giuseppe Messina, Mirko Guarnera, Valeria Tomaselli, Arcangelo Bruna, <i>STMicroelectronics, Italy</i>
16:40	3.4-2 TAKING IMAGES IN EXTREMELY HIGH DYNAMIC RANGE SCENES BY FUSING MULTIPLE EXPOSED IMAGES AND TONE REPRODUCTION Wen-Chung Kao, <i>National Taiwan Normal University, Taiwan</i>
17:00	3.4-3 MOTION-BLUR-FREE CAMERA SYSTEM USING MULTI-EXPOSED IMAGES Seung-Won Jung, Byeong-Doo Choi, <i>Korea University, South Korea</i> ; Hyun-Hwa Oh, <i>Samsung Advanced Institute of Technology, South Korea</i> ; Sung-Jea Ko, <i>Korea University, South Korea</i>
17:20	3.4-4 MULTI-BAND LOCALLY-ADAPTIVE CONTRAST ENHANCEMENT ALGORITHM WITH BUILD-IN NOISE AND ARTIFACT SUPPRESSION MECHANISMS Sascha Cvetkovic, <i>Bosch Security Systems/University of Technology Eindhoven, Netherlands</i> ; Johan Schirris, <i>Bosch Security Systems, Netherlands</i> ; Peter H.N. de With, <i>University of Technology Eindhoven/Logica CMG, the Netherlands</i>
17:40	3.4-5 A CELLULAR NEURAL NETWORK FOR ZOOMING DIGITAL COLOUR IMAGES Sebastiano Battiato, <i>University of Catania, Italy</i> ; Emilio Ugo Giuffrida, <i>STmicroelectronics, Italy</i> ; Francesco Rundo, <i>University of Catania, Italy</i>

SESSION 4.1: Special Healthcare II - Remote & Home Healthcare Instrumentation

Date: January 12, 2008

Time: 08:45 - 10:25

Location: N258

Chair: [Peter Corcoran](#), *National University of Ireland, Galway*

Co-Chair: [Bernard Fong](#), *Hong Kong Polytechnic University*

08:45	4.1-1 VIP NEW EMERGING OPPORTUNITIES IN CONSUMER HEALTHCARE David Simons, <i>Philips, USA</i>
09:25	4.1-2 EYE-VIEW: A RETINAL IMAGE ACQUISITION SYSTEM Harinarayanan S, Prabhakar T V, <i>Indian Institute of Science, India</i>
09:45	4.1-3 A NON-INVASIVE ARTERIAL STIFFNESS ASSESSMENT INSTRUMENT FOR HOMECARE Hsien-Tsai Wu, <i>National Dong Hwa University, Taiwan</i> ; Cheng-Tso Yao, Tsang-Chih Wu, <i>Dept. of Electrical</i>

Engineering, National Dong Hwa University, Taiwan; Ming-Ting Sun, Dept. of Electrical Engineering, University of Washington, United States

10:05 **4.1-4 ARCHITECTURE OF A CONSUMER LAB-ON-CHIP FOR PHARMACOGENOMICS**
George Kornaros, Center of Technology and Research Crete, Greece

SESSION 4.2: Error Correction

Date: January 12, 2008

Time: 08:45 - 10:25

Location: N260

Chair: [Paul Snopko](#), Techwell, Inc.

Co-Chair: [Uwe E. Kraus](#), University of Wuppertal

08:45 **4.2-1 PERFORMANCE ANALYSIS OF FORWARD ERROR CORRECTING CODES IN IPTV**
Sung Won Kim, Department of Electronics Engineering, Konkuk University, South Korea

09:05 **4.2-2 A STUDY ON ADAPTIVE MODULATION OF PRE-CODED OFDM COMBINED WITH ERROR CORRECTING CODE**
Takahiro Tsugi, Tokyo University of Science, Japan; Makoto Itami, Tokyo University of Science, Japan

09:25 **4.2-3 ENHANCED MITIGATION SCHEME FOR HIGH POWER AND LONG DURATION INTERFERENCE IN DVB-T/H SYSTEMS**
Ali Hazmi, Tampere University of Technology, Finland

09:45 **4.2-4 EFFICIENT DECODING ALGORITHM FOR RAPTOR CODES FOR MULTIMEDIA BROADCAST SERVICES**
Jun Heo, School of Electrical Engineering, Korea University, South Korea; Sun Won Kim, Dept. of Electronics Engineering, Konkuk University, South Korea

10:05 **4.2-5 A RECURSIVE TRELLIS DECODER TO APPROACH THE SHANNON CAPACITY IN ATSC DTV RECEIVERS**
Young Ho Oh, Kyoung Won Lee, Dae Jin Kim, Dept. of Electronics and Computer Engineering, Chonnam National University, South Korea

SESSION 4.3: BD & HD DVD

Date: January 12, 2008

Time: 08:45 - 10:25

Location: N262

Chair: [Kei Yamashita](#), Hitachi, Ltd.

Co-Chair: [Sorin Stan](#), Philips Consumer Electronics

08:45 **4.3-1 BLU-RAY DISC/DVD COMPATIBLE OPTICAL SLIM PICKUP**
Hiromitsu Mori, Hitachi, Ltd., Consumer Electronics Laboratory, Japan; Tomoto Kawamura, Yasuo Kitada, Toshimasa Kamisada, Hitachi Media Electronics Co., Ltd., 1st Engineering Dept., Optical Pickup Business Division, Japan

09:05 **4.3-2 PROGRESSIVE DIFFERENTIAL PUSH-PULL METHOD FOR DUAL LAYER BLU-RAY DISC RECORDING**
Hironori Nakahara, Kenya Nakai, Toshiya Matozaki, Nobuo Takeshita, Mitsubishi Electric Corporation Advanced Technology R&D Center, Japan

09:25 **4.3-3 ARCHITECTURE OF PRML DECODER FOR BD/HD DVD COMPATIBLE SYSTEM**
Yusuke Nakamura, Junya Iizuka, Koichiro Nishimura, Masakazu Ikeda, Yukinobu Tada, Hitachi, Ltd., Consumer Electronics Laboratory, Japan

09:45 **4.3-4 A FRONT-END SIGNAL PROCESSING LSI FOR HD DVD/DVD/CD WITH DUAL-ADAPTIVE PRML**
Hideyuki YAMAKAWA, Koichi OTAKE, Yukiyasu TATSUZAWA, Norikatsu CHIBA, Kazuteru SAGINAO, Toshiba Corp., Japan

10:05 **4.3-5 A DVB-MHP TO BLU-RAY TRANSCODING SCHEME FOR INTERACTIVE DATA**
Sergio Infante, Panos Nasiopoulos, University of British Columbia, Canada

10:25 **4.3-6 OPPORTUNITIES FOR 3D ON BLU-RAY DISC**
Philip Newton, Francesco Scalori, Fons Bruls, Philips Research Laboratories Europe, the Netherlands

SESSION 4.4: Video Processing and Architectures

Date: January 12, 2008

Time: 08:45 - 10:25

Location: N264

Chair: [Wang Lou](#), *Mitsubishi Digital Electronics America, Inc.*

Co-Chair: [Sharon Peng](#), *Harman Consumer Group*

08:45 **4.4-1** EFFICIENT ARCHITECTURE FOR FULL HD 120 HZ FRAME RATE CONVERSION
E. B. (Erwin) Bellers, *NXP Semiconductors, TriMedia Center of Excellence, Consumer Businesses USA, United States*; Johan Janssen, Maurice Penners, *NXP Semiconductors, United States*

09:05 **4.4-2** 3D RECURSIVE SEARCH BLOCK MATCHING ON GRAPHICS PROCESSING UNIT
Meng Zhao, *Philips Research Laboratories, Netherlands*; Harm van der Heijden, *NXP Semiconductors, the Netherlands*

09:25 **4.4-3** Withdrawn

09:45 **4.4-4** PRIORITY-PROCESSING FOR OPTIMIZED REAL-TIME PERFORMANCE WITH LIMITED PROCESSING RESOURCES
Christian Hentschel, *University of Technology Cottbus*, Stefan Schiemenz, *LS Media Technology, BTU Cottbus, Germany*

10:05 **4.4-5** A POWER REDUCTION METHOD FOR LCD BACKLIGHT BASED ON HUMAN VISUAL CHARACTERISTICS
Sang-Jin Lee, Kyu-Hoi Um, Byung-Sun Choi, *Samsung, South Korea*

SESSION 5.1: Audio Signal Processing I

Date: January 12, 2008

Time: 10:30 - 12:10

Location: N258

Chair: [George Borden](#), *Logitech, Inc.*

Co-Chair: [Fredric Lindstrom](#), *Limes Technology*

10:30 **5.1-1** A DISPLAY-MOUNTED HIGH-QUALITY STEREO MICROPHONE ARRAY FOR HIGH-DEFINITION VIDEOPHONE SYSTEM
Yusuke Hioka, Manabu Okamoto, Kazunori Kobayashi, Yoichi Haneda, Akitoshi Kataoka, *NTT Cyberspace Laboratories, NTT Corporation, Japan*

10:55 **5.1-2** HIGH QUALITY DIRECTIONAL AUDIO SYSTEM
Xiaobing Sun, Kanzo Okada, *Sony Electronics (S) Pte Ltd, Singapore*

11:20 **5.1-3** ON-LINE MUSIC BEAT TRACKING WITH KALMAN FILTERING AND PROBABILITY DATA ASSOCIATION (KF-PDA)
Yu Shiu, *Univeristy of Southern California, United States*; C.-C. Jay Kuo, *University of Southern California, United States*

11:45 **5.1-4** A DISTORTION REDUCING SUBBAND LIMITER IMPLEMENTATION FOR CONFERENCE PHONES
Christian Schüldt, Ingvar Claesson, *Blekinge Institute of Technology*, Fredric Lindstrom, *Limes Technology, Sweden*

SESSION 5.2: Networking; Bridging and Interworking

Date: January 12, 2008

Time: 10:30 - 12:10

Location: N260

Chair: [Stu Lipoff](#), *IP Action Partners*

Co-Chair: [J.J. Lukkien](#), *Eindhoven University of Technology*

10:30 **5.2-1** NOVEL BRIDGE FOR NETWORKING IEEE 1394 CLUSTERS VIA UWB OVER COAXIAL CABLE FOR HANA AND AV/C DIGITAL MULTIMEDIA NETWORKS
Sergio Guillén Servent, *Universidad Politécnica de Valencia (Spain) / Fraunhofer IPMS (Germany), Spain*

10:55 **5.2-2** SEAMLESSLY INTERCONNECTING LEGACY IEEE 1394 DEVICES OVER UWB NETWORK: THE MIRRORING BRIDGE
Jonghun Yoo, Jiyong Park, Seongsoo Hong, *Seoul National University, South Korea*

11:20 **5.2-3** DESIGN AND IMPLEMENTATION OF ZIGBEE TO SCP BRIDGE
Jia-Feng Wu, *Tatung University, Taiwan*

11:45 **5.2-4** IGN2IP : INTERNETWORKING INTELLIGENT GADGET NETWORK BASED ON 802.15.4 WITH IP NETWORK
KwangHee Lee, JongHo Won, ChangSeok Bae, *Electronics and Telecommunications Research Institute (ETRI), South Korea*

SESSION 5.4: Video Distribution System Aspects & Tools

Date: January 12, 2008

Time: 10:30 - 12:10

Location: N264

Chair: [Saurabh Mathur](#), Thomson Inc.

Co-Chair: [Peter de With](#), LogicaCMG Nederland / TU Eindhoven

10:30 **5.4-1** DSL FORUM'S FOCUS: QUALITY DELIVERY AND MANAGEMENT OF IPTV
George Dobrowski, *DSL Forums, USA*

10:55 **5.4-2** REDUCING IPTV CHANNEL SWITCHING TIME USING H.264 SCALABLE VIDEO CODING
Yonghee Lee, Jonghun Lee, *Seoul National University, South Korea*; Inkwon Kim, *Varovision, South Korea*;
Heonshik Shin, *Seoul National University, South Korea*

11:20 **5.4-3** VIDEO SEGMENTATION-AIDED VCR SUPPORT FOR P2P VOD SYSTEMS
xin wang, *Fudan University, China*

11:45 **5.4-4** A PLATFORM INDEPENDENT DIGITAL STORY
Dhammike Wickramanayake, *Loughborough University, United Kingdom*

POSTER SESSION P2: 6. Poster (Network, Security, Healthcare)

Date: January 12, 2008

Time: 14:30 - 16:30

Location: N256

Chair: [Dietmar Hepper](#), Thomson

Co-Chair: [David Hutchison](#), Texas Instruments

P2-1 A LOW COST AND FAST HANDOFF SOLUTION IN IPV6 NETWORKS
Jae-Kwon Seo, Sung-Hyun Nam, *Sejong University, South Korea*; Woon-Young Yeo, *SK Telecom, South Korea*;
Kyung-Geun Lee, *Sejong University, South Korea*

P2-2 CONTEXT REPRESENTATION OF INTELLIGENT GADGETS FOR EVENT-DRIVEN SERVICES
Hyeju Jang, Kugsang Jeong, Jongho Won, Changseok Bae, *Electronics and Telecommunications Research Institute, South Korea*

P2-3 IMPLEMENTATION OF SMART HEADBAND FOR THE WEARABLE HEALTHCARE
Sanghyun Kim, *Korea University of Science and Technology, South Korea*; Dongwan Ryoo, Changseok Bae, *ETRI, South Korea*

P2-4 AUTONOMIC SYSTEM MANAGEMENT FOR THE PDA
Yong-Duck You, Hoon Choi, *Chungnam National University, South Korea*; Dongwon Han, *Electronics and Telecommunications Research Institute, South Korea*

P2-5 A WEARABLE HEALTH CONTEXT AWARE SYSTEM
Youngsung Kim, *ETRI, South Korea*

P2-6 THE WEARABLE WRIST-TYPE GADGET FOR HEALTHCARE BASED ON PHYSIOLOGICAL SIGNALS
Dong Wan Ryoo, *ETRI, South Korea*; Chang-Seok Bae, Jeun-Woo Lee, *etri, South Korea*

P2-7 A SCHEME FOR LOCATION TRANSPARENT ACCESS TO NETWORKED CONSUMER ELECTRONICS
Hidekazu Kuroki, *IRI Ubiteq, Inc. & Shizuoka University, Japan*; Hiroyuki Inoue, Tsukasa Ogino, *IRI Ubiteq, Inc., Japan*; Susumu Ishihara, *Shizuoka University, Japan*

P2-8 A NEW TRANSACTIONAL FLASH TRANSLATION LAYER FOR EMBEDDED DATABASE SYSTEMS BASED ON MLC NAND FLASH MEMORY
Hyojun Kim, Kiyoung Lee, Jung JaeGyu, Kyoungil Bahng, *Samsung Electronics, South Korea*

P2-9 DEVELOPMENT OF GATEWAY-SINK NODE FOR WIRELESS SENSOR NETWORK USING ZIGBEE
KIM DONG WON, *Chungbuk Provincial University, South Korea*; Ryu Jae Hong, Kim Bong Soo, Pyo Chol Sic, *ETRI, South Korea*

P2-10	SECURE DELETION OF CONFIDENTIAL DATA IN CONSUMER ELECTRONICS Kyoungmoon Sun, Jongmoo Choi, <i>Dankook University, South Korea</i> ; Donghee Lee, <i>University of Seoul, South Korea</i> ; Sam Noh, <i>Hongik University, South Korea</i>
P2-11	A PHONE FOR HUMAN ACTIVITY RECOGNITION USING TRIAXIAL ACCELERATION SENSOR Sa-kwang Song, <i>ETRI, South Korea</i>
P2-12	INTELLIGENT WIRELESS SENSOR NETWORK FOR SURVEILLANCE SYSTEMS Yao-Chung Chang, <i>Dept. of CSIE National Taitung University, Taiwan</i>
P2-13	PERSONAL INTERACTIVE BIPEDAL SYMMETRY RE-EDUCATION SYSTEM TO AID THE RECOVERY OF STROKE VICTIMS Martin O'Halloran, <i>NCBES, National University of Ireland, Galway, Ireland</i>
P2-14	TWO-PHASED REGION INTEGRATION APPROACH FOR EFFECTIVE PEDESTRIAN DETECTION IN LOW CONTRAST IMAGES Miki Haseyama, Yosuke Kaga, <i>Hokkaido University, Japan</i>
P2-15	DESIGN AND IMPLEMENTATION OF CONTROL MECHANISM FOR STANDBY POWER REDUCTION Joon Heo, Choong Seon Hong, <i>Kyung Hee University, South Korea</i> ; Seok Bong Kang, <i>I'ware Inc., Ltd, South Korea</i> ; Sang Soo Jeon, <i>VITZRO SYS Co., Ltd., South Korea</i>
P2-16	UBIQUITOUS HEALTH-ASSIST SYSTEM BASED ON ACCESSORY-TYPE PHYSIOLOGICAL SIGNAL SENSING DEVICE Kyuchang Kang, Youngsung Kim, Jeunwoo Lee, <i>ETRI, South Korea</i> ; Hoon Choi, <i>Chungnam National University, South Korea</i>
P2-17	DEVICE CONTROL WITH SCRIPTABLE-API USING WEB BASED FRAMEWORK YoungChul Sohn, Ho Jin, JongWook Park, <i>Samsung Electronics, South Korea</i>
P2-18	A NETWORK LEVEL POWER MANAGEMENT FOR HOME NETWORK DEVICES Youn-Kwae Jeong, Intark Han, Kwang-Roh Park, <i>ETRI, South Korea</i>
P2-19	ECG-BASED BIOFEEDBACK CHAIR FOR SELF-EMOTION MANAGEMENT AT HOME Chung K Lee, <i>Yonsei Univ, South Korea</i> ; Sun Kook Yoo, <i>Yonsei University, South Korea</i>
P2-20	AN INTEGRATED SCHEME FOR AUTHENTICATION AND ACCESS CONTROL IN A DIGITAL TV ENVIRONMENT Min Gyo Chung, <i>Seoul Women's University, South Korea</i> ; Yong Kim, <i>Korea Telecom, South Korea</i>
P2-21	THE BRIDGE COMPONENT OF UPNP AND BLUETOOTH FOR WEARABLE COMPUTING ENVIRONMENT Tae-Wook Jo, <i>Chungnam National University, South Korea</i>
P2-22	REFERENCE MONITOR MODEL FOR USER COMFORTABILITY AND PRIVACY OF HOME GATEWAY IN OSGI SERVICE PLATFORM Eun-Ae Cho, <i>Korea University, South Korea</i> ; Chang-Joo Moon, <i>Konkuk University, South Korea</i> ; Doo-Kwon Baik, <i>Korea University, South Korea</i>
P2-23	DEVELOPMENT OF THE PORTABLE MONITORING SYSTEM BASED ON WIRELESS BODY AREA SENSOR NETWORK FOR CONTINUOUS ACQUISITION AND MEASUREMENT OF THE VITAL SIGN Bong M Jang, Yong K Lee, <i>Yonsei University, South Korea</i> ; Sun K Yoo, <i>Yonsei University Medical Center, South Korea</i>
P2-24	RFIPV6 - A NOVEL IPV6-EPC BRIDGE MECHANISM Yao-Chung Chang, <i>Dept. of CSIE National Taitung University, Taiwan</i>
P2-25	A STUDY OF HEALTHCARE SYSTEM FOR PATIENT LOCATION DATA BASED ON LBS AHN JINSOO, <i>SEJONG University, South Korea</i> ; Heo Jungil, Lim Suyoung, Seo Jungho, Kim Wooshik, <i>Sejong University, South Korea</i>
P2-26	WEARABLE ACCELEROMETER FOR NUMERICAL DIAGNOSIS OF HUMAN WALK USING DCT Shigeyoshi Nakajima, Mitsuhiko Ikebuchi, <i>Osaka City University JAPAN, Japan</i>

P2-27 A SYSTEM PROTOTYPE FOR PORTABLE WIRELESS MEDICAL DEVICES
Chua-Chin Wang, Chi-Chun Huang, *National Sun Yat-Sen University, Taiwan*

SESSION 6.1: Special Audio

Date: January 12, 2008

Time: 14:30 - 16:10

Location: N258

Chair: [Fredric Lindstrom](#), *Limes Technology*

14.30 **6.1-1** THE HISTORY AND FUTURE OF DSPS IN CONSUMER AUDIO EQUIPMENT, PART-I Tomlinson Holman, *Sr. Member, IEEE*

14.50 **6.1-2** THE HISTORY AND FUTURE OF DSPS IN CONSUMER AUDIO EQUIPMENT, PART-II Tomlinson Holman, *Sr. Member, IEEE*

15.10 **6.1-3** VARIABLE-OCTAVE COMPLEX SMOOTHING FOR LOUDSPEAKER-ROOM RESPONSE EQUALIZATION
Sunil Bharitkar, *Member IEEE*, Chris Kyriakakis, *Member IEEE*, Tom Holman, *Sr. Member, IEEE*

15.30 **6.1-4** AUTOMATIC ROOM EQUALIZATION
Chris Kyriakakis, *Member IEEE*, Sunil Bharitkar, *Member IEEE*

SESSION 6.2: Wireless Services

Date: January 12, 2008

Time: 14:30 - 16:10

Location: N260

Chair: [Paul Snopko](#), *Techwell, Inc.*

Co-Chair: [Simon Sherratt](#), *The University of Reading*

14:30 **6.2-1** ISCSI PROTOCOL ADAPTATION WITH NAS SYSTEM VIA WIRELESS ENVIRONMENT
Shaikh Muhammad Allayear, Park Sung Soon, *Anyang University, South Korea*

14:50 **6.2-2** ON THE PERFORMANCE OF VOIP AND IPTV OVER A WIRELESS MESH NETWORK IN AN OUTDOOR ENVIRONMENT
Johan Ekling, Mikael Gidlund, *Acreo AB, Sweden*

15:10 **6.2-3** FOUR-WAY VIDEO CONFERENCE AND ITS SESSION CONTROL BASED ON DISTRIBUTED MINI-MCU IN HOME SERVER
Intark Han, *ETRI, South Korea*

15:30 **6.2-4** NEW BIT MAPPING FOR DAB AND TERRESTRIAL DMB
Hyoungsoo Lim, *Electronics and Telecommunications Research Institute (ETRI), South Korea*

15:50 **6.2-5** IMPLEMENTATION OF TRANSMITTER IDENTIFICATION SIGNAL ANALYZER IN SINGLE FREQUENCY NETWORK
Jae young Lee, Sung Ik Park, Heung Mook Kim, Jong Soo Lim, *ETRI, South Korea*

SESSION 6.3: New Camera Technologies

Date: January 12, 2008

Time: 14:30 - 16:10

Location: N262

Chair: [Takuya Imaide](#), *Hitachi Ltd.*

Co-Chair: [Taichiro Kurita](#), *Japan Broadcasting Corporation*

14:30 **6.3-1** A BD CAMERA WITH ONE-HOUR HD VIDEO RECORDING
Toshihiro Kato, Hiroyuki Marumori, Akinobu Watanabe, Nozomu Shimoda, Takeo Okochi, *Hitachi, Ltd., Japan*

14:50 **6.3-2** A USER-FRIENDLY VIDEO CAMERA BASED ON ERGONOMIC STUDIES
Yasuhiro Iijima, *Sanyo Electric Co., Ltd., Japan*

- 15:10 **6.3-3** DEVELOPMENT OF HDD/DVD HYBRID CAMCORDER
Tsutomu Usui, Shimpei Usui, Nozomu Shimoda, Hiroyuki Marumori, Masahiro Fujimoto, *hitachi ltd., Japan*
- 15:30 **6.3-4** LOW-COST CAMERA MOTION EXTRACTION IN COMPRESSED VIDEOS
Ying Weng, Jianmin Jiang, *School of Informatics, University of Bradford, United Kingdom*
- 15:50 **6.3-5** ADAPTIVE TONE-MAPPING TRANSFER FUNCTIONS FOR HIGH DYNAMIC RANGE VIDEO CAMERAS
Sascha Cvetkovic, *Bosch Security Systems/University of Technology Eindhoven, the Netherlands*; Jan Klijn, *Bosch Security Systems, Netherlands*; Peter H.N. de With, *University of Technology Eindhoven/Logica CMG, the Netherlands*

SESSION 6.4: Advanced Video Decoders

Date: January 12, 2008

Time: 14:30 - 16:10

Location: N264

Chair: [Michael Isnardi](#), *Sarnoff Corporation*

Co-Chair: [Aldo Morales](#), *Penn State Harrisburg*

- 14:30 **6.4-1** A MULTI-STANDARDS HDTV VIDEO DECODER FOR BLU-RAY DISC STANDARD
Noriyuki Minegishi, Hidenori Sato, *Mitsubishi Electric Corporation, Japan*; Anthony Vetro, *Mitsubishi Electric Research Labs, United States*; Fumitaka Izuhara, Masayuki Koyama, *Renesas Technology Corporation, Japan*
- 14:50 **6.4-2** MULTI-STANDARD VIDEO DECODER USING CONFIGURABLE MICROPROCESSOR TECHNOLOGY
Tomonari Tohara, *Tensilica, Inc., United States*
- 15:10 **6.4-3** A DSP BASED H.264 DECODER FOR A MULTI-FORMAT IP SET-TOP BOX
Fernando Pescador, Matias J. Garrido, Cesar Sanz, Eduardo Juarez, David Samper, *Universidad Politécnica de Madrid, Spain*
- 15:30 **6.4-4** AN EFFICIENT ARCHITECTURE FOR HARDWARE IMPLEMENTATION OF H.264/AVC DEBLOCKING FILTERING
Felix Tobajas, Gustavo Callicó, Pedro A. Pérez, Valentín De Armas, Roberto Sarmiento, *Institute for Applied Microelectronics (IUMA), Spain*
- 15:50 **6.4-5** DESIGN CONSIDERATIONS FOR A 3D-TV VIDEO CODING ARCHITECTURE
Yannick Morvan, Dirk Farin, Peter deWith, *Eindhoven University of Technology, the Netherlands*

SESSION 7.1: Audio Signal Processing II

Date: January 12, 2008

Time: 16:30 - 18:10

Location: N258

Chair: [Fredric Lindstrom](#), *Limes Technology*

Co-Chair: [George Borden](#), *Logitech, Inc*

- 16:50 **7.1-2** A FAST AND MEMORY EFFICIENT HUFFMAN DECODING METHOD FOR THE MPEG-4 AAC STANDARD
Gutemberg G.S. Júnior, Mateus A. M. Lima, Walter O. G. Filho, Angelo Perkusich, Marcos R. A. Morais, Antonio M. N. Lima, *Federal University of Campina Grande, Brazil*
- 17:10 **7.1-3** A NOVEL WIND NOISE REDUCTION FOR DIGITAL VIDEO CAMERA
masahiro yoshida, *SANYO Electric Co.,Ltd., Japan*
- 17:30 **7.1-4** NOISE-ROBUST REDUCTION SCHEME OVER PERVASIVE HOME NETWORK & SYSTEMS ENVIRONMENT FOR INTERNET TELEPHONY SERVICE
Jinsul Kim, *ETRI-ICU, South Korea*; Hyun-Woo Lee, Won Ryu, *ETRI, South Korea*; Seung Ho Han, *Information and communications University, South Korea*; M. S. Hahn, *ICU, South Korea*
- 17:50 **7.1-5** SPEECH ENHANCEMENT FOR DISTRIBUTED SPEECH RECOGNITION IN MOBILE DEVICES
Ronan Flynn, *Athlone Institute of Technology, Ireland*; Edward Jones, *National University of Ireland, Galway, Ireland*

SESSION 7.2: Automotive A/V & Networking

Date: January 12, 2008

Time: 16:30 - 18:10

Location: N260

Chair: [Guido Volleberg](#), *Philips Consumer Electronics*
Co-Chair: [Peter Corcoran](#), *National University of Ireland, Galway*

16:30 **7.2-1** THE MULTIMEDIA ENGINE MME – A FLEXIBLE MIDDLEWARE FOR AUTOMOTIVE INFOTAINMENT SYSTEMS
Elmar Cochlovius, *Harman/Becker Automotive Systems, Germany*; Dan Dodge, *QNX Software Systems, Canada*;
Shrikant Acharya, *Margi Systems, United States*

16:50 **7.2-2** AN EFFICIENT REGION OF INTEREST GENERATION TECHNIQUE FOR FAR-INFRARED PEDESTRIAN
DETECTION
Ronan O'Malley, Martin Glavin, Edward Jones, *National University of Ireland, Galway, Ireland*

17:10 **7.2-3** A TRANSCEIVER DESIGN FOR ECU NODES IN FLEXRAY-BASED AUTOMOTIVE COMMUNICATION SYSTEMS
Chua-Chin Wang, Gang-Neng Sung, Po-Cheng Chen, *National Sun Yat-Sen University, Taiwan*

17:30 **7.2-4** A PRACTICAL CALIBRATION METHOD FOR TOP VIEW IMAGE GENERATION
Yohei ISHII, *SANYO, Japan*

17:50 **7.2-5** IMAGE RENDERING FOR REDUCING CARSICKNESS IN WATCHING ONBOARD VIDEO DISPLAY
akihiro morimoto, *Matsushita Electric Industrial Co., Ltd., Japan*; Naoki Isu, Tomohiro Okumura, Yusuke Araki,
Atsuo Kawai, Fumito Masui, *Mie University, Japan*

SESSION 7.3: 3D Camera & Object Recognition

Date: January 12, 2008

Time: 16:30 - 18:10

Location: N262

Chair: [Takuya Imaide](#), *Hitachi Ltd.*

Co-Chair: [Taichiro Kurita](#), *Japan Broadcasting Corporation*

16:50 **7.3-1** 3D CAMERA CALIBRATION USING GRAY CODE PATTERNS
Shinichiro Hirooka, Norihiko Nakano, Masato Kazui, *Hitachi, Ltd, Japan*

17:10 **7.3-2** A STATISTICAL MODEL FOR BLINK DETECTION IN DIGITAL CAMERAS
Peter Corcoran, National University of Ireland, Galway, Ioana Bacivarov, Mircea Ionita, *National University of
Ireland, Galway, Ireland*

17:30 **7.3-3** IMAGE ORIENTATION DETECTION BASED ON CAMERA-SUBJECT DISTANCES BY ADAPTIVE CONTROL OF
CONDITIONAL PROBABILITY
Yusuke Takahashi, Kyoji Hirata, *NEC Corporation, Japan*

17:50 **7.3-4** PHOTOGRAPHING FOR ON-LINE MOBILE PANORAMAS
Kyoungju Park, *Chung-Ang University, South Korea*

SESSION 7.4: Video Enhancement

Date: January 12, 2008

Time: 16:30 - 18:10

Location: N264

Chair: [Erwin Bellers](#), *NXP Semiconductors*

Co-Chair: [Masuru Sakurai](#), *Nagoya Institute of Technology*

16:30 **7.4-1** DETECTION OF DE-INTERLACING FOR SCALED VIDEO CONTENT
Dmitri Znamenski, Claus Nico Cordes, *Philips Research, the Netherlands*

16:50 **7.4-2** A NEW EDGE-BASED INTRA-FIELD INTERPOLATION METHOD FOR DEINTERLACING USING LOCALLY
ADAPTIVE-THRESHOLDED BINARY IMAGE
Dong-Ho Lee, *Hanyang University, South Korea*

17:10 **7.4-3** GRASS FIELD DETECTION FOR TV PICTURE QUALITY ENHANCEMENT
Bahman Zafarifar, *Eindhoven University of Technology, Netherlands*; Peter de With, *LogicaCMG, thNet
Netherlands*

17:30 **7.4-4** FAST DEBLOCKING ALGORITHM APT TO VIDEO STREAMING APPLICATION IN MOBILE DEVICES
Suryanto Suryanto, Sang-Hee Park, Kwang-Wook Lee, *Korea University, South Korea*; Aldo W. Morales, Penn
State Harrisburg, *Penn State University, United States*; Sung-Jea Ko, *Korea University, South Korea*

17:50 **7.4-5** QUALITY ENHANCEMENT OF COMPRESSED VIDEO SIGNALS
Ihor Kirenko, Ling Shao, *Philips Research Laboratories, the Netherlands*

SESSION 8.1: Human Computer Interaction

Date: January 13, 2008

Time: 08:45 - 10:25

Location: N258

Chair: [Reinhard Moeller](#), *University of Wuppertal*

Co-Chair: [Andreas Weber](#), *University of Bonn*

08:45 **8.1-1** DEVELOPMENT OF RECOGNITION SYSTEM USING FUSION OF NATURAL GESTURE/SPEECH
Young-Giu Jung, *Electronics and Telecommunications Research Institute, South Korea*

09:05 **8.1-2** SQUARE: 3X3 KEYPAD MAPPED TO GEOMETRIC ELEMENTS OF A SQUARE
Youngwoo Yoon, Geehyuk Lee, *Information and Communications University, South Korea*

09:25 **8.1-3** WATERMARKING FOR CONTENT AWARE INTELLIGENT TOYS
Aweke Lemma, Mehmet Celik, Stefan Katzenbeisser, Michiel van der Veen, *Philips Research Europe, the Netherlands*

09:45 **8.1-4** DESIGN METHOD OF UI OF AV REMOTE CONTROLLER BASED ON AHP
Yuta Uesugi, Morimasa Matsuda, *Mitsubishi Electric Microcomputer Application Software Co., Ltd., Japan*; Takako Nonaka, Tomohiro Hase, *Ryukoku University, Japan*

10:05 **8.1-5** CONTEXT-AWARE MIDDLEWARE FOR MOBILE PHONE BASED ON OPERATIONAL LOGS
Ryozo Kiyohara, *Osaka University/Mitsubishi Electric Corporation, Japan*; Mitsuhiro Matsumoto, *Osaka University, Japan*; Naoki Shimizu, Satoshi Mii, *Mitsubishi Electric Corporation, Japan*; Masayuki Numao, Satoshi Kurihara, *Osaka University, Japan*

SESSION 8.2: Networking: Applications

Date: January 13, 2008

Time: 08:45 - 10:25

Location: N260

Chair: [Johan Lukkien](#), *Eindhoven University of Technology*

Co-Chair: [Aldo Morales](#), *Penn State Harrisburg*

08:45 **8.2-1** A HYBRID SYSTEM THAT SUPPORTS PULL-TYPE AND PUSH-TYPE AV CONTENT STREAMING BASED ON DLNA TECHNOLOGIES
Haoming Shen, Yoshinori Hatayama, *SANYO Electric Co., Ltd., Japan*

09:05 **8.2-2** SOFTWARE PLATFORM CONCEPT FOR INTERACTIVE VIDEO HANDHELD DEVICES
Philipp Steckel, *TU Braunschweig, Institut für Nachrichtentechnik, Germany*

09:25 **8.2-3** ARCHITECTURE FOR A HOME MEDIA NETWORK BASED ON PTP/IP CONNECTIVITY TECHNIQUES
Peter Corcoran, *National University of Ireland, Galway, Ireland*

09:45 **8.2-4** CONTENT REBROADCASTING FROM DVB-H TO HOME NETWORK
irek defee, *Tampere University of Technology, Finland*; Igor Curcio, Kalervo Kantola, *Nokia Research Center, Finland*; Carol Rus, *Tampere University of Technology, Finland*

10:05 **8.2-5** PERSONAL MOBILE A/V CONTROL POINT FOR HOME-TO-HOME MEDIA STREAMING
Taein Hwang, *ETRI-SKKU, South Korea*

SESSION 8.3: Special Session

Advanced Applications of Objective Video Quality Metrics and Methods, Part 2

Date: January 13, 2008

Time: 08:45 - 10:25

Location: N262

Chair: [Jorge E. Caviedes](#), *Intel Corporation*

Co-Chair: [Sanjit Mitra](#), *University of California, Santa Barbara*

08:45	8.3-1 A NOVEL PERFORMANCE MEASURE FOR PICTURE RATE CONVERSION METHODS Adrienne Heinrich, Gerard de Haan, Claus Nico Cordes, <i>Philips Research, the Netherlands</i>
09:05	8.3-2 TEST VIDEO SELECTION FOR VIDEO RESEARCH AND DEVELOPMENT Chin Chye Koh, <i>University of California at Santa Barbara, United States</i> ; Jorge Caviedes, <i>Intel Corporation, United States</i> ; Sanjit Mitra, <i>University of California at Santa Barbara, United States</i>
09:25	8.3-3 METRICS TO EVALUATE THE QUALITY OF MOTION COMPENSATION SYSTEMS IN DE-INTERLACING AND UP-CONVERSION APPLICATIONS Marina Nicolas, <i>ST Microelectronics, France</i> ; Jerome Roussel, <i>ST Microelectronics, France/Laboratoire Images et Signaux (LIS), France</i> ; Frederique Crete, <i>ST Microelectronics, France/Laboratoire Images et Signaux (LIS), France</i>
09:45	8.3-4 ON THE WILLINGNESS TO PAY IN RELATION TO DELIVERED QUALITY OF MOBILE VIDEO STREAMING Michal Ries, <i>Vienna University of Technology, Austria</i> ; Olivia Nemethova, <i>Vienna University of Technology, Austria</i> ; Markus Rupp, <i>Vienna University of Technology, Austria</i>
10:05	8.3-5 A WAVELET INTERLACED VIDEO CODING FRAMEWORK L.M. Mei, H.R. Wu and D.M. Tan, <i>RMIT University, Austria</i>

SESSION 8.4: Error Concealment Techniques
Date: January 13, 2008
Time: 08:45 - 10:25
Location: N264
Chair: [Peter deWith](#), *LogicaCMG Nederland / TU Eindhoven*
Co-Chair: [Christian Hentschel](#), *University of Technology Cottbus*

08:45	8.4-1 A TEMPORAL ERROR CONCEALMENT METHOD FOR H.264/AVC USING MOTION VECTOR RECOVERY Jun Wu, Xingang Liu, Kook-yeol Yoo, <i>Yeungnam University, South Korea</i>
09:05	8.4-2 LOW-COMPLEXITY MOBILE VIDEO ERROR CONCEALMENT USING OBMA Tanaphol Thaipanich, Ping-Hao Wu, <i>Ming Hsieh Department of Electrical Engineering, University of Southern California, United States</i> ; C.-C. Jay Kuo, <i>Ming Hsieh Department of Electrical Engineering, University of Southern California, United States</i>
09:25	8.4-3 FRAME ERROR CONCEALMENT TECHNIQUE USING ADAPTIVE INTER-MODE ESTIMATION FOR H.264/AVC Jun-Hyung Kim, Min-Cheol Hwang, Hae-Yong Yang, Sung-Jea Ko, <i>Korea University, South Korea</i> ; Aldo W. Morales, <i>Penn State Harrisburg, Penn State University, United States</i>
09:45	8.4-4 A DYNAMIC MULTI-MODE SWITCHING (DMS) ERROR CONCEALMENT ALGORITHM FOR VIDEO DEVICE APPLICATIONS Vera Yuk Ying Chung, <i>University of Sydney, Australia</i>
10:05	8.4-5 ERROR TRACKING BASED ERROR CONCEALMENT STRATEGY FOR SCALABLE VIDEO CODING Chun-Su Park, Min-Seok Yoon, <i>Korea University, South Korea</i> ; Seon-Tae Kim, Hae-Chul Choi, <i>ETRI, South Korea</i> ; Sung-Jea Ko, <i>Korea University, South Korea</i>

POSTER SESSION P3: 9. Poster (Image/Video/Audio)
Date: January 13, 2008
Time: 10:10 - 12:10
Location: N256
Chair: [Dietmar Hepper](#), *Thomson*
Co-Chair: [David Hutchison](#), *Texas Instruments*

	P3-1 A BAYESIAN NETWORK-BASED DEINTERLACING SCHEME Gwanggil Jeon, <i>Hanyang University, South Korea</i>
	P3-2 FLAT HEX PATTERN FOR LARGE RANGE FAST MOTION ESTIMATION Cheng-Ling Tseng, Nam Ling, <i>Santa Clara University, United States</i>
	P3-3 A HANDS-FREE UNIT WITH NOISE REDUCTION BY USING ADAPTIVE BEAMFORMER Kazunori Kobayashi, Yoichi Haneda, Kenichi Furuya, Akitoshi Kataoka, <i>NTT Cyber Space Laboratories, NTT Corporation, Japan</i>

P3-4	A PEER-TO-PEER MOBILE MULTIMEDIA STREAMING SYSTEM FOR MOBILE DEVICES Sébastien Vénot, <i>Devera / ICT Turku Oy, Finland</i> ; Lu Yan, <i>University College London, United Kingdom</i>
P3-5	HARDWARE DEDICATED INTEGER-PEL MOTION ESTIMATOR FOR HIGH DEFINITION H.264/AVC VIDEO ENCODER Jae Hun Lee, <i>Digital Media R&D Center, SAMSUNG ELECTRONICS CO., LTD., South Korea</i> ; Ki Won Yoo, <i>Digital Media R&D Center, SAMSUNG ELECTRONICS CO., LTD., South Korea</i>
P3-6	EFFICIENT RGB VIDEO CODING USING ADAPTIVE INTER-PLANE RESIDUAL PREDICTION Yong-Hwan Kim, Ji-Ho Park, Je-Woo Kim, Byeongho Choi, <i>KETI, South Korea</i> ; Joonki Paik, <i>Chung-Ang University, South Korea</i>
P3-7	A MUSICAL ONSET DETECTION SYSTEM WITH SCALABLE COMPLEXITY Wan-Chi Lee, Yu Shiu, C.-C. Jay Kuo, <i>University of Southern California, United States</i>
P3-9	DEVELOPMENT OF MULTICHANNEL SOUND SCENE VISUALIZATION TOOL WITH MPEG SURROUND MULTICHANNEL DECODER Jeongil Seo, Seungkwon Beack, Daeyoung Jang, <i>ETRI, South Korea</i>
P3-10	EFFICIENT RETRANSMISSION ARCHITECTURE OF DIGITAL BROADCAST SERVICES OVER IPTV NETWORKS Bong-Jin Oh, Yu-Seok Bae, Kyeong-Deok Moon, <i>ETRI, South Korea</i>
P3-11	HARDWARE EFFICIENT SKIP MODE DETECTION FOR H.264/AVC Chia-Chun Lin, Yu-Kun Lin, Tian-Sheuan Chang, <i>Institute of Electronics, National Chiao-Tung University, Taiwan</i>
P3-12	A REVERSIBLE FACE DE-IDENTIFICATION METHOD BASED ON ROBUST HASHING Jin S. Seo, Seong Oun Hwang, Young-Ho Suh, <i>ETRI, South Korea</i>
P3-13	AN EFFICIENT CAVLD ALGORITHM FOR H.264 DECODER Tsung-Han Tsai, De-Lung Fang, <i>National Central University, Taiwan</i>
P3-14	HIGHLY EFFICIENT H.264/AVC CODEC TECHNOLOGY FOR HIGH DEFINITION CONSUMER APPLICATIONS Daisuke Yoshida, Masaru Takahashi, Hiroki Mizosoe, Taku Nakamura, Yusuke Yatabe, <i>Consumer Electronics Laboratory, Hitachi, Ltd., Japan</i>
P3-15	A GENERIC APPROACH FOR DIGITAL CLOCK SYNTHESIS USED FOR HDTV/PC-AVI RECEIVER Michael Pietrzyk, <i>NXP Semiconductors, Germany</i>
P3-16	HIGH PRECISION DIGITAL IMAGE STABILIZING SYSTEM USING OPTICAL DEVICE Jin-Hyung Kim, Keun-Young Byun, Byeong-Doo Choi, Sung-Jea Ko, <i>Korea University, South Korea</i>
P3-17	HIGH QUALITY LOGO INSERTION ALGORITHM FOR H.264/AVC Tomohiro Tsuji, Akio Yoneyama, Hiromasa Yanagihara, Yasuhiro Takishima, <i>KDDI R&D Laboratories Inc., Japan</i>
P3-18	REAL-TIME FREE VIEWPOINT RENDERING SYSTEM FOR FACE-TO-FACE VIDEO CONFERENCE Chia-Ho Pan, <i>National Taiwan University, Taiwan</i> ; Sheng-Chieh Huang, <i>National Chiao-Tung University, Taiwan</i> ; Yu-Lin Chang, Chung-Jr Lian, Liang-Gee Chen, <i>National Taiwan University, Taiwan</i>
P3-19	IMPACT OF FAST MOTION ESTIMATION ALGORITHMS ON SUPER-RESOLVED VIDEO SEQUENCES Gustavo Marrero Callico, Sebastian Lopez Suarez, Karlos Tarajano Beracoechea, Jose Lopez Feliciano, Roberto Sarmiento Rodriguez, <i>University of Las Palmas de G.C., Spain</i>
P3-20	ENANCED TRANSFORM DOMAIN INTRA PREDICTION FOR MPEG-2 TO H.264/AVC TRANSCODING Sang-Jun Yu, Seoung-Jun Oh, <i>VIA-Multimedia Center, South Korea</i>
P3-21	LOW-POWER DIGITAL FILTER USING OPTIMIZED CSD AND PIPELINED AU FOR 24-BIT AUDIO DAC Sang-Yong Lee, <i>Korea University, Seoul, KOREA, South Korea</i> ; Yun-Seob Song, <i>Samsung Electronics, South Korea</i> ; Ji-Man Cho, Soo-Won Kim, <i>Korea University, Seoul, KOREA, South Korea</i>

P3-22 APPLYING DATA CAROUSEL TO IMPROVE SEARCH EFFICIENCY IN P2P SYSTEM
Guobin Wu, *School of Information Science and Technology, USTC, Anhui, China, China*

P3-23 TEXT-INDEPENDENT SPEAKER IDENTIFICATION USING SOFT CHANNEL SELECTION IN A MULTI-MICROPHONE ENVIRONMENT
Mikyong Ji, *Information and Communications University, South Korea*

P3-24 AN EFFECTIVE COLOR DISTORTION AND NOISE REDUCTION FOR UNSHARP MASKING IN LCD DISPLAYS
You-sun Kim, *Korea, South Korea*; Seung-kyun Kim, *Sung-Jea Ko, Korea Univ, South Korea*

P3-25 WAVELET BASED EDGE PRESERVING SEGMENTATION ALGORITHM FOR OBJECT RECOGNITION AND OBJECT TRACKING
Tomaz Romih, *University of Maribor, Slovenia*

P3-27 AN OBJECT REMOVAL METHOD BASED ON IMPROVED TEXTURE SYNTHESIS ON PHOTOGRAPHS
Fei Wang, Nanning Zheng, Jizhong Zhao, Jishang Wei, YangJun Zhang, *Institute of Artificial Intelligence and Robotics, China*

P3-28 FAST MODE DECISION IN H.264/AVC BASED ON FUZZY LOGIC
Han-Kui Chang, Pei-Jun Lee, Effendi Shu, *National Chi Nan University, Taiwan*

P3-29 PERFORMANCE EVALUATION OF THE EMERGING SCALABLE VIDEO CODING
Haechul Choi, Kyung Il Lee, Seong-Jun Bae, Jung Won Kang, Jeong-Ju Yoo, *ETRI, South Korea*

P3-30 SIMPLE BASS EQUALIZER FOR CLOSED-BOX LOUDSPEAKER SUBWOOFERS
Vladimir Filevski, *Broadcasting Council Macedonia, Macedonia*

SESSION 9.1: User Privacy and Authentication

Date: January 13, 2008

Time: 10:30 - 12:10

Location: N258

Chair: [Akiomi Kunisa](#), *SANYO Technology*

Co-Chair: [Richard Doherty](#), *Envisioneering*

10:30 **9.1-1** DETERMINING UNIQUE FINGERPRINT FEATURES FOR BIOMETRIC ENCODING OF DATA
Peter Corcoran, *National University of Ireland, Galway*, Cucu Catalin, Alex Cucos, *National University of Ireland, Galway, Ireland*

10:55 **9.1-2** PALMPRINT ALIGNMENT FOR CONSUMER APPLICATIONS
A.C.M. Fong, *Auckland University of Technology, AUT, New Zealand*; Bernard Fong, *Hong Kong Polytechnic University, Hong Kong*

11:20 **9.1-3** EFFICIENT AND SECURE REMOTE AUTHENTICATED KEY AGREEMENT SCHEME FOR MULTI-SERVER USING MOBILE EQUIPMENT
Jun Ho Lee, *CIST, Korea University, South Korea*

11:45 **9.1-4** A MODEL FOR PRIVACY PRESERVING METERING SERVICE
Bo Gyeong Kang, *Samsung Electronics co., LTD., South Korea*; Je Hong Park, *National Security Research Institute, South Korea*; Chae Seung Chul, Seonman Kim, *Samsung Electronics co., LTD., South Korea*

SESSION 9.2: Interconnects and Physical Transmission

Date: January 13, 2008

Time: 10:30 - 12:10

Location: N260

Chair: [Peter Corcoran](#), *National University of Ireland, Galway*

Co-Chair: Petronel Bigioli, *FotoNation Ireland Ltd*

10:30 **9.2-1** ON DE-EMBEDDING PHASE FOR HIGH SPEED CONNECTORS
Aldo Morales, *Penn State Harrisburg*, Sedig Agili, Shilpa Gaddala, *Penn State Harrisburg, United States*

11:03 **9.2-2** LOW POWER CONTINUOUS EQUALIZER ADOPTING A CLOCK LOSS TRACKING TECHNIQUE FOR DIGITAL DISPLAY INTERFACE (DDI)
Kyu-Young Kim, Soo-Won Kim, *Korea University, South Korea*

11:36 **9.2-3** ASYMMETRIC BI-DIRECTIONAL OPTICAL FIBER MODULE FOR HIGH-DEFINITION VIDEO TRANSMISSION
Masahisa SAKAI, Takayoshi SASAO, Tadashi AIZAWA, Satoru TOGUCHI, Takashi IWAMOTO, *Victor Company of Japan, Limited, Japan*

SESSION 9.4: Display Systems and Enhancement Techniques

Date: January 13, 2008

Time: 10:30 - 12:10

Location: N264

Chair: [Atul Batra](#), *Marvell Semiconductors Inc*

Co-Chair: [Wang-He Lou](#), *Mitsubishi Digital Electronics*

10:30 **9.4-1** ENHANCEMENT OF 3D SHAPE IN 2D NATURAL IMAGES USING A NON-PHOTOREALISTIC SHADING APPROACH
Tatsumi Watanabe, *Matsushita Electric Industrial Co., Ltd., Japan*; Shuichi Ojima, *Sojo University, Japan*

10:55 **9.4-2** ULTRA-SHORT THROW DISTANCE FRONT PROJECTOR WITH MIRROR-LENS HYBRID PROJECTION OPTICAL SYSTEM
Shinya Matsumoto, *Sanyo Electric Co., Ltd., Japan*

11:20 **9.4-3** VOLUMETRIC DISPLAY BASED ON INCLINED-IMAGE SCANNING AND ITS APPLICATION FOR THREE-DIMENSIONAL IMAGE TRANSMISSION
Daisuke Miyazaki, Takeshi Honda, Takaaki Mukai, *Osaka City University, Japan*

11:45 **9.4-4** THE DESIGN AND IMPLEMENTATION OF A STEREOSCOPIC MICRODISPLAY TELEVISION
David Hutchison, Henry Neal, *Texas Instruments, United States*

SESSION 10.2: Channel Estimation I

Date: January 13, 2008

Time: 14:20 - 16:00

Location: N260

Chair: [Wang Lou](#), *Mitsubishi Digital Electronics America, Inc.*

Co-Chair: [Paul Snopko](#), *Techwell, Inc.*

14:20 **10.2-1** BLIND LINEAR FEEDBACK EQUALIZATION OF ATSC DTV SIGNALS USING FEINTUCH'S COEFFICIENT UPDATE ALGORITHM
Thomas Wilson, *Vienna University of Technology, Austria*

14:45 **10.2-2** ADAPTIVE PATH-LOSS MODEL-BASED INDOOR LOCALIZATION
SangYoung Park, *ETRI, South Korea*; Hyo-Sung Ahn, *Electronics and Telecommunications Research Institute (ETRI), South Korea*

15:10 **10.2-3** ML ESTIMATION OF TIME AND FREQUENCY OFFSET USING ANTENNA DIVERSITY IN OFDM SYSTEMS
HEE WOOK KIM, *ETRI, South Korea*

15:35 **10.2-4** DIGITAL ON-CHANNEL REPEATER FOR TERRESTRIAL DIGITAL MULTIMEDIA BROADCASTING (T-DMB)
Jung Su Han, Kyunchan Shin, Hyung Jin Choi, *Sungkyunkwan University, South Korea*

SESSION 10.4: Motion Estimation and Video Enhancement

Date: January 13, 2008

Time: 14:20 - 16:00

Location: N264

Chair: [Christian Hentschel](#), *University of Technology Cottbus*

Co-Chair: [Erwin Bellers](#), *NXP Semiconductors*

14:20 **10.4-1** CONTENT-ADAPTIVE RESOLUTION ENHANCEMENT OF COMPRESSED VIDEO WITH ENCODER-GENERATED SIDE INFORMATION
Fei Zuo, Stijn de Waele, Fons Bruls, *Philips Research Labs, the Netherlands*

14:45 **10.4-2** SUPERRESOLUTION OF A REGION OF INTEREST USING FEATURE-BASED AFFINE MOTION ESTIMATION
Sung Hyun Kim, Rae-Hong Park, *Department of Electronic Engineering, Sogang University, South Korea*; Seungjoon Yang, *Samsung Electronics Co., Ltd, South Korea*

15:10 **10.4-3** LOW COMPLEXITY GLOBAL MOTION ESTIMATION TECHNIQUES FOR IMAGE STABILIZATION
Felix Albu, Corneliu Florea, Adrian Zamfir, *Fotonation, Romania*; Alexandru Drimbarean, *Fotonation, Ireland*

15:35 **10.4-4 ESTIMATING INTER-FRAME PARAMETRIC DOMINANT MOTION AT 1000FPS RATE**
Alexander Sibiryakov, *Mitsubishi Electric, VI-Lab, United States*

POSTER SESSION P4: 10. Poster (AV Rec, HCI, Display)

Date: January 13, 2008

Time: 14:20 - 16:20

Location: N256

Chair: [David Hutchison](#), *Texas Instruments*

Co-Chair: [Aldo W. Morales](#), *Penn State Harrisburg*

P4-1 A NOVEL AUDIO/VIDEO DECODER FOR VIDEO RECORDERS
Daniel Ogilvie, *Magnum Semiconductors, Canada*

P4-2 REAL-TIME EMBEDDED PANORAMA MOSAIC SYSTEM FOR DIGITAL CAMERA
Seong Jong Ha, Hyung Il Koo, Sang Hwa Lee, Nam Ik Cho, *Seoul National University, South Korea*

P4-3 INTEGRATING FLEXIBLE ELECTROPHORETIC DISPLAY AND ONE-TIME PASSWORD GENERATOR IN SMART CARDS
Wen-Chung Kao, *National Taiwan Normal University, Taiwan*

P4-4 INTELLIGENT WHEELCHAIR USING FACE AND MOUTH SHAPE
jinsun ju, *konkuk University at Korea, South Korea*

P4-5 AN FPGA-BASED SMART CAMERA FOR GESTURE ANALYSIS FOR HEALTHCARE APPLICATIONS
Timothy Tsui, *University of New South Wales, Australia*; Yu Shi, *National ICT Australia, Australia*

P4-6 AN INTRA-PANEL INTERFACE FOR LARGE SIZE FPDS WITH HIGH RESOLUTION AND DEFINITION
Youngkwon Jo, Sungha Kim, Suki Kim, *Korea University, South Korea*

P4-8 INCREASING THE NUMBER OF DISC OVERWRITES ON RECORDABLE DISC
Srinivas Rao Kudavelly, *Philips Electronics India Limited, India*; Robert Brondijk, *Philips Consumer Electronics, the Netherlands*

P4-9 PREFETCHING-BASED MOBILE DICTIONARY
Yang-Sae Moon, Soon-Jung Hong, Jinho Kim, *Kangwon National University, South Korea*

P4-10 USER INTERFACE USING QUICK PALM MOTIONS WITH INTEGRATION OF INPUT AND OUTPUT
Ryosuke Kokaji, *Ryukoku University, Japan*; Morimasa Matsuda, *Mitsubishi Electric Microcomputer Application Software Co. Ltd., Japan*; Takako Nonaka, Tomohiro Hase, *Ryukoku University, Japan*

P4-11 WRITE SYSTEM OF BLU-RAY DISC DRIVE FOR VIDEO CAMERA
Takuma Tsukuda, Tatsuya Ishitobi, Koichi Watanabe, Hisataka Sugiyama, *Hitachi.Ltd, Japan*

P4-12 TRICK PLAY METHOD FOR HD H.264 SET-TOP BOX
Jin Hwan Jeong, *Electronics and Telecommunications Research Institute, South Korea*

P4-13 CLEAR FOCUSED IMAGE FROM MACRO AND INFINITE IMAGES
Chih-Wei Chen, Chiou-Shann Fuh, *National Taiwan University, Taiwan*

P4-14 VISION-BASED VIRTUAL TOUCH SCREEN INTERFACE
Eunjin Koh, Jongho Won, Changseok Bae, *Electronics and Telecommunications Research Institute (ETRI), South Korea*

P4-15 DEVELOPMENT OF ADVANCED PVR BASED ON TV-ANYTIME
Hyun-Cheol Kim, Seong Yong Lim, Joo Myoung Seok, Ji Hoon Choi, Han-kyu Lee, Jin-Woo Hong, *ETRI, South Korea*

P4-16 DESIGN AND IMPLEMENTATION OF COLOR REPRODUCTION SYSTEM FOR IMAGES CAPTURED BY DIGITAL CAMERA
Seok-Han Lee, *Chung-ang University, South Korea*; Sang-Won Um, Jong-Soo Choi, *Chung-Ang University, South Korea*

P4-17 MULTI-VIEW VIDEO NAVIGATION USING MOTION SENSING REMOTE CONTROLLERS
Hari Kalva, Chris Holder, *Florida Atlantic University, United States*

P4-18 A CLUSTERED FLASH TRANSLATION LAYER FOR MASS STORAGE COMPACTFLASH SYSTEMS
Kwanghee Park, Young-Du Kang, Deok-Hwan Kim, *Inha University, South Korea*

P4-19 CONDITIONAL ACCESS IN BLU-RAY MPEG-2 TRANSPORT STREAMS
Kousik Sankar, *Philips, India*

P4-20 PROXY-BASED MULTIMEDIA SIGNALING SCHEME USING RTSP FOR SEAMLESS SERVICE MOBILITY IN HOME NETWORK
Jong Min Lee, Myungju Yu, Seong Gon Choi, *Chungbuk National University, South Korea*

P4-21 BRISA UPNP A/V FRAMEWORK
Ádrian Guedes, Danilo Santos, José Nascimento, Leandro Sales, Angelo Perkusich, Hyggo Almeida, *Federal University of Campina Grande, Brazil*

P4-22 USER INTERACTION AND RANDOM ACCESSIBILITY ANALYSIS FOR MULTIVIEW VIDEO SYSTEM
You Yang, Gangyi Jiang, *Ningbo University, China*; Zhu Peng, *China University of Mining and Technology, China*; Mei Yu, *Ningbo University, China*

P4-23 REMOTE CONTROL GENERATING DYNAMIC USER INTERFACE CORRESPONDING TO AUDIO VISUAL SYSTEM CONFIGURATION
Takako Nonaka, *Ryukoku University, Japan*; Shuya Kimura, Tomohiro Hase, *Ryukoku University, Japan*

P4-24 A FAST ALGORITHM FOR 3D CAMERA USING PIXEL-INTENSITIES AS A MODEL FOR DEPTH MEASUREMENT
Mannan Saeed Muhammad, Aamir S. Malik, Tae-Sun Choi, *GIST, South Korea*

SESSION 11.1: Gaming & Processing Architectures

Date: January 13, 2008

Time: 16:20 - 18:00

Location: N258

Chair: [Guido Volleberg](#), *Philips Consumer Electronics*

Co-Chair: [Petronel Biglaj](#), *FotoNation Ireland Ltd*

16:20 **11.1-1** APPLICATION PROFILING IN A DUAL-CORE PLATFORM
Uian S. Gorgônio, Henza R. Cunha, Saulo O. D. Luiz, Angelo Perkusich, Marcos R.A. Morais, Antonio M. N. Lima, *Federal University of Campina Grande, Brazil*

16:40 **11.1-2** AN INEXPENSIVE IMPULSE DETECTOR AND FINITE STATE TIMING SYSTEM
Douglas Ferraz, Yaro Burian Jr., *Unicamp, Brazil*

17:00 **11.1-3** GLOBAL ILLUMINATION FOR ADVANCED COMPUTER GRAPHICS
Mathieu Robart, Steve Hill, Emmanuel Tanguy, *STMicroelectronics, United Kingdom*

17:20 **11.1-4** IMPROVEMENT OF COLLISION DETECTION PERFORMANCE OF HIERARCHIES BY USING CLASSIFIED DYNAMIC-DENSITY OF 3D OBJECTS
Chun Ho Yi, *Seoul Digital University, South Korea*; TaeYong Kim, *Department of Image Engineering, Graduate School of Advanced Imaging Science, South Korea*

17:40 **11.1-5** AN EFFICIENT MAPPING OF OPENGL ES 1.1 OVER OPENGL ES 2.0
Steve Hill, Mathieu Robart, Emmanuel Tanguy, *STMicroelectronics, United Kingdom*

SESSION 11.2: Channel Estimation II

Date: January 13, 2008

Time: 16:20 - 18:00

Location: N260

Chair: [Wolfgang Weltersbach](#), *NXP Semiconductors*

Co-Chair: [Wang Lou](#), *Mitsubishi Digital Electronics*

- 16:20 **11.2-1** AN EQUALIZATION TECHNIQUE TO COMBAT STRONG PRE-ECHOES IN SFN WITH DOCR
Young Ho Oh, Se Young Kim, Dae Jin Kim, *Dept. of Electronics and Computer Engineering, Chonnam National University, South Korea*
- 16:40 **11.2-2** AN EFFICIENT TRAINING SEQUENCE FOR CHANNEL ESTIMATION IN ATSC 8VSB SYSTEM.
Soonchul Park, Jim Kim, Ho-Bin Lee, Jae Chan Lee, Eun Su Kang, *Kyungpook National University, South Korea*;
Dong Seog Han, *Institute for Information Technology Advancement, Kyungpook National University, South Korea*
- 17:00 **11.2-3** INTELLIGENT 1-DIMENSIONAL CHANNEL ESTIMATION METHODS AND ITS APPLICATION TO DVB-T SYSTEM
Chang Yeon Cho, Do Huy Wang, Joon Tae Kim, *Konkuk University, South Korea*
- 17:20 **11.2-4** A CHANNEL EQUALIZATION METHOD USING SPLINE INTERPOLATION FOR MOBILE RECEPTION IN DIGITAL TELEVISION TERRESTRIAL BROADCASTING
Takashi Iida, *Sanyo Electric Co., Ltd., Japan*
- 17:40 **11.2-5** MMSE EQUALIZATION WITH WEIGHTED SNRS FOR DVB-T RECEIVERS
You-Seok Lee, *Pusan National University, South Korea*; Hyun-Chool Shin, *Soongsil University, South Korea*;
Hyoung-Nam Kim, *Pusan National University, South Korea*

SESSION 11.3: Home Media Server

Date: January 13, 2008

Time: 16:20 - 18:00

Location: N262

Chair: [Isao Kawahara](#), *Matsushita Electric Industrial Co., Ltd.*

Co-Chair: [Sorin Stan](#), *Philips Consumer Electronics*

- 16:20 **11.3-1** ACCESSING OF DIGITAL MEDIA CONTENTS WITH DLNA PROTOCOL IN CONJUNCTION WITH DSI WSTP PROTOCOL
Chang Sheng Teo, Sie Yong Law, Foo Kong Foong, Nyok Boon Chong, Han Jong Kim, *Data Storage Institute, Singapore*
- 16:40 **11.3-2** USER-CONFIGURABLE PERSONALIZED ELECTRONIC PROGRAM GUIDE
Jinsoo Han, Intark Han, Kwang-Roh Park, *ETRI, South Korea*
- 17:00 **11.3-3** PROVISION OF THE MULTIMEDIA SERVICE FRAMEWORK IN THE UBIQUITOUS HOME NETWORK
Jung-Tae Kim, *ETRI, South Korea*
- 17:20 **11.3-4** MANAGING A MEDIA SERVER CONTENT DIRECTORY IN ABSENCE OF RELIABLE METADATA
Fernando M. Matsubara, Takehiko Hanada, Shigeru Imai, Shin Miura, Shinji Akatsu, *Mitsubishi Electric Corporation, Japan*

SESSION 11.4: Video Streaming & Transmission

Date: January 13, 2008

Time: 16:20 - 18:00

Location: N264

Chair: [Saurabh Mathur](#), *Thomson Inc.*

Co-Chair: [Johan Lukkien](#), *Eindhoven University of Technology*

- 16:20 **11.4-1 INVITED PAPER**
A LATENCY ANALYSIS ON H.264 VIDEO TRANSMISSION SYSTEMS
Ralf M. Schreier, *Vienna University of Technology, Austria*; Albrecht Rothermel, *University of Ulm, Germany*
- 16:40 **11.4-2** A NEW TRANSMISSION SYSTEM FOR THE ADVANCED SATELLITE BROADCAST
Akinori HASHIMOTO, *NHK (Japan Broadcasting Corporation), Japan*; Yoichi SUZUKI, *NHK (Japan Broadcasting Corporation), Japan*
- 17:00 **11.4-3** DEVELOPMENT OF A PACKAGING STORAGE FORMAT FOR ELECTRONIC COMIC SERVICES WITH METADATA
DaeKyu Jung, *University of Science and Technology, South Korea*; Hui Yong Kim, Han-Kyu Lee, *ETRI, South Korea*
- 17:20 **11.4-4** HIGHLY EFFICIENT TRANSMISSION SYSTEM FOR DIGITAL BROADCASTING REDISTRIBUTION SERVICES OVER IP MULTICAST NETWORKS

Tetsuya Yamaguchi, *NTT Corporation, Japan*

17:40 **11.4-5** CONTEXT-AWARE VERTICAL HANDOFF FOR STREAMING SERVICE OVER HETEROGENEOUS NETWORK
Jae-Young Pyun, Ho-Jin Choi, *Chosun university, South Korea*