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Technical Program

Sunday, January 9

08:20 - 10:00

Keynote: Opening - Gary Shapiro, President & CEO – CEA
Innovation and National Strategy

10:00 - 11:40

T03-S1: Video Distribution 1 - Systems

Multi-Screen IPTV: Enabling Technologies and Challenges

Peng Tan (TELUS, Canada); Jim Slevinsky (TELUS Communications, Canada)
pp. 1-2

A Video-Aware FEC-Based Unequal Loss Protection Scheme for RTP Video Streaming

César Díaz (Universidad Politécnica de Madrid, Spain); Julián Cabrera (Universidad Politécnica de Madrid, Spain); Fernando Jaureguizar (Universidad Politécnica de Madrid, Spain); Narciso García (Universidad Politécnica de Madrid, Spain)
pp. 3-4

Broadband Video Streaming During Backhaul WiMAX Handoff

Salah M Saleh Al-Majeed (University of Essex, United Kingdom); Martin Fleury (University of Essex, United Kingdom); Laurel Ifebigh (University of Essex, United Kingdom)
pp. 5-6

A Distributed and Dynamic Adaptation Scheme for Contention Window in WiMedia Networks

HyunHee Park (Korea University, Korea); Sangheon Pack (Korea University, Korea); Jaeduck Ko (Korea University, Korea); Chul-Hee Kang (Korea University, Korea)
pp. 7-8

Design of USB Interface Based ATSC Mobile DTV Receivers

Se-Ho Park (Korea Electronics Technology Institute, Korea); Yong-Suk Park (Korea Electronics Technology Institute, Korea); Jong Ho Paik (Korea Electronics Technology Institute, Korea); Kyung-Taek Lee (Korea Electronics Technology Institute, Korea); Jun-rim Choi (Kyungpook University, Korea)
pp. 9-10

T08-S03: Wireless Systems

Demonstration of Optical Wireless USB 2.0 System with Wireless Power Transfer

Tomonori Yazaki (KDDI R&D Laboratories Inc., Japan)
pp. 11-12

Dynamic Channel Allocation for QoS Provisioning in Visible Light Communication

Mostafa Zaman Chowdhury (Kookmin University, Korea); Muhammad Shahin Uddin (Kookmin University, Seoul, Korea); Yeong Min Jang (Kookmin University, Korea)
pp. 13-14

Dynamic Multi-Channel Agility for ZigBee RF4CE (Radio Frequency for Consumer Electronics) Systems

Kwang-il Hwang (University of Incheon, Korea); Woon-yong Lee (University of Incheon, Korea)
pp. 15-16

A Low-Power IF Circuit with 5-dB Minimum Input SNR for GFSK Low-IF Receivers

Bo Zhao (Tsinghua University, P.R. China); Guangming Yu (Tsinghua University, P.R. China); Tao Chen (Tsinghua University, P.R. China); Pengpeng Chen (Tsinghua University, P.R. China); Huazhong Yang (Tsinghua University, P.R. China); Hui Wang (Tsinghua University, P.R. China)
pp. 17-18

Analysis of Performance Penalties in Hierarchical DQPSK Modulation Systems

Wan-Jin Kim (Pusan National University, Korea); Jong Woo Shin (Pusan National University, Korea); In Woong Kang (Pusan National University, Korea); Hyoung-Nam Kim (Pusan National University, Korea)
pp. 19-20

Tut01: Tutorial 1 - DIY Haptics (A Practical Intro to Haptics for CE People)

T04-S1: Audio Processing

Voice Activation System Using Acoustic Event Detection and Keyword/Speaker Recognition

Namgook Cho (University of Southern California, USA); Taeyoon Kim (Samsung Electronics, Korea); Sangwook Shin (Samsung Electronics, Korea); Eun-Kyoung Kim (Samsung Electronics, Korea)
pp. 21-22

New Concept for Class D Audio Amplifiers for Lower Cost and Better Performance

Alexandr Ikriannikov (Versatile Power, USA); Noah A Wilson (Versatile Power, USA)
pp. 23-24

Relationship Between Send Characteristics of VoIP Phone and Speech Recognition Performance

BaeYoung Park (Korea University, Korea); JunHo Park (University of Cambridge, United Kingdom); JongSong Yoon (Korea University, Korea); Hanseok KO (Korea University, Korea)
pp. 25-26

An Efficient Huffman Decoding Method Using Concurrent Execution in ARM Cortex-A8

Tony James (Aricent Technologies (Holdings) Ltd, India); Ashtosh Sapru (Aricent Technologies Holdings Ltd, India); Vasanthakumar Rajagopal (Aricent Technologies Holdings Ltd, India)
pp. 27-28

On-Demand Soundscape Generation Using Spatial Audio Mixing

Satoshi Innami (The University of Electro-Communications, Japan); Hiroyuki Kasai (The University of Electro Communication, Japan)
pp. 29-30

T15-S01a: Interactive TV I

11:50 - 14:20

Panel Session (CES Review) & Luncheon Keynote from Wayne Luplow (Zenith Electronics) Advanced Television Systems Committee (ATSC) Overview>

14:30 - 16:10

T15-S01b: Interactive TV II

T11-S02: Flash Memory in Consumer Electronics

Performance Enhancement of I/O Scheduler for Solid State Devices

Seungyup Kang (Korea University, Korea); Hyun-chan Park (Korea University, Korea); Chuck Yoo (Korea University, Korea)
pp. 31-32

Compression Ratio Based Hot/Cold Data Identification for Flash Memory

Kyuwoon Kim (Hanyang University, Korea); Sanghyuk Jung (Hanyang University, Korea); Yong Ho Song (Hanyang University, Korea)

pp. 33-34

Coupling Cancellation Maximum-Likelihood (CCML) Detection for Multi-Level Cell NAND Flash Memory

Donghyuk Park (Soongsil University, Korea); Jinyoung Kim (Soongsil University, Korea); Jaejin Lee (Soongsil University, Korea)

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T08-S01: Wireless Systems & Devices

Increasing Throughput in RFID Multi-Reader Environments Avoiding Reader-to-Reader Collisions

Filippo Gandino (Politecnico di Torino, Italy); Renato Ferrero (Politecnico di Torino, Italy); Bartolomeo Montrucchio (Politecnico di Torino, Italy); Maurizio Rebaudengo (Politecnico di Torino, Italy)

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LED Jitter-Induced Limitation Effects in the Baud Rate of VLC Systems

Francisco J Lopez-Hernandez (Universidad Politecnica de Madrid, Spain); Guillermo Campo-Jimenez (Universidad Politecnica de Madrid, Spain); Enrique Poves (Universidad Politecnica de Madrid, Spain); Jesus A Martin-Gonzalez (Universidad de Burgos, Spain)

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Universal Set-Top Box: A Simple Design to Provide Accessible Services

Laisa Costa (University of Sao Paulo, Brazil); Celio Hira (LSI-TEC, Brazil); Marcelo De Biase (LSI-TEC, Brazil); Marcelo K Zuffo (University of São Paulo, Brazil)

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A Novel Scheme for Accurate Billing Based on Actual View-Time in Broadcast TV

Chirabrata Bhaumik (Tata Consultancy Services, India); Avik Ghose (Tata Consultancy Services, India)

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Interpolation Filter Design for Multi-Channel VSB Signal Generator

Seo Weon Heo (Hongik University, Korea)

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T02-S1: MPEG AVC/H.264 Video Coding

Region-Based Weighted Prediction for Real-Time H.264 Encoder

Do-Kyoung Kwon (Texas Instruments, USA); Hyung Joon Kim (Texas Instruments, USA)

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Complexity Scalable Motion Estimation Control for H.264/AVC

Rico Huijbers (Eindhoven University of Technology, The Netherlands); Tanir Özçelebi (Eindhoven University of Technology, The Netherlands); Reinder J. Bril (Eindhoven University of Technology, The Netherlands)

pp. 49-50

Extended Variable-Length Mode Coding for Enhancement of H.264/AVC

Katsuyuki Nakamura (Hitachi, Ltd., Japan); Masashi Takahashi (Hitachi, Ltd., Japan); Toru Yokoyama (Hitachi, Ltd., Japan); Seiji Mochizuki (Renesas Electronics Corp., Japan); Kazushi Akie (Renesas Electronics Corp., Japan); Kenichi Iwata (Renesas Electronics Corporation, Japan)

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Multi-Layer Watermarking of H.264/AVC Video Using Differential Expansion on IPCM Blocks

Mohammad Athar Ali (Loughborough University, United Kingdom); Edirisinghe Eran (Loughborough University, United Kingdom)
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Enhanced Hand Rehabilitation Using a Haptic Interface

Wanjoo Park (Korea Institute of Science and Technology, Korea); Seung Jae Shin (University of Science and Technology, Korea); Hyunchul Cho (Korea Institute of Science and Technology, Korea); Sehyung Park (Korea Institute of Science and Technology, Korea); Laehyun Kim (Korea Institute of Science and Technology, Korea)
pp. 55-56

T13-S01: Haptics in CE - Assoc. Session with Trans on Haptics

High Definition Haptics for Consumer Electronics

Manuel Cruz (Immersion, Canada); Danny Grant (Immersion Corp., Canada)
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Electrotactile Feedback for Handheld Devices with Touch Screen - Texture Reproduction

M. Ercan Altinsoy (Dresden University of Technology, Germany); Sebastian Merchel (Dresden University of Technology, Germany)
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Restoring Physicality to Touch Interaction with Programmable Friction

Vincent Lévesque (University of British Columbia, Canada); Louise Oram (University of British Columbia, Canada); Karon MacLean (UBC, Canada); Edward Colgate (Northwestern University, USA); Michael Peshkin (Northwestern University, USA)
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A Multimodal Test Platform for Investigating Haptic Feedback in Portable Devices

Brian Gleeson (University of Utah, USA); Rebecca L Koslover (University of Utah, USA); Joshua de Bever (University of Utah, USA); William Provancher (University of Utah, USA)
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16:30 - 18:30

Pan01: Panel Discussion: The Future of Digital Media [Wayne Luplow, Stu Lipoff, Bob Frankston, Kees Immink]

T08-S02: ATSC Systems

Reducing IP Packet Loss in ATSC-M/H Multiplexer

Seong-Jun Kim (Korea Electronics Technology Institute, Korea); Kyung Won Park (Korea Electronics Technology Institute, Korea); Youn-Sung Lee (Korea Electronics Technology Institute, Korea); Kyung-Taek Lee (Korea Electronics Technology Institute, Korea); Jong Ho Paik (Korea Electronics Technology Institute, Korea)
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A Carrier Frequency Recovery Scheme for Extended ATSC Systems

Young Gon Jeon (Konkuk University, Korea); Joon Tae Kim (Konkuk University, Korea)
pp. 67-68

An Alternative Carrier Phase Independent Timing Recovery Methods for VSB Receivers

Sung Soo Shin (Konkuk University, Korea); Jong Gyu Oh (Konkuk University, Korea); Joon Tae Kim (Konkuk University, Korea)

Interactive Services for ATSC Mobile DTV Based on BWS

Yong-Suk Park (Korea Electronics Technology Institute, Korea); Se-Ho Park (Korea Electronics Technology Institute, Korea); Seong-Jun Kim (Korea Electronics Technology Institute, Korea); Jong Ho Paik (Korea Electronics Technology Institute, Korea); Jong-Moon Chung (Yonsei University, Korea)

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Emergency Broadcasting with ATSC Mobile DTV

Saet-Byeol YU (Seoul Women's University, Korea); Min-Ju Cho (Seoul Women's University, Korea); Se-Ho Park (Korea Electronics Technology Institute, Korea); Yong-Suk Park (Korea Electronics Technology Institute, Korea); Jun Hwang (Seoul Women's University, Korea)

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A Modification of ATSC Transmission System for Terrestrial 3D HDTV Broadcasting

Jong Gyu Oh (Konkuk University, Korea); Joon Tae Kim (Konkuk University, Korea)

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T01-S2: Image Analysis

Hand Jitter Descriptor for Mobile Video Identification

Alexander Sibiryakov (Mitsubishi Electric Research Centre Europe, United Kingdom)

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Low-Cost Hierarchical Video Segmentation for Consumer Electronics Applications

Stavros Paschalakis (Mitsubishi Electric R&D Centre Europe BV, United Kingdom); Karol Wnukowicz (Warsaw University of Technology, Poland); Mirosław Bober (Mitsubishi, United Kingdom)

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Video Freezing Detection System for End-User Devices

Vladimir Zlokolica (University of Novi Sad, Serbia); Vukota Pekovic (RT-RK d.o.o., Serbia); Nikola Teslic (University of Novi Sad, Serbia); Tarkan Tekcan (Vestel, Turkey); Miodrag Temerinac (University of Novi Sad, Serbia)

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The INVENIO Platform for 2D/3D Content Re-Use

Titus Zaharia (Institut TELECOM, France); Thomas Laquet (Institut TELECOM; TELECOM SudParis, France); Alain Vaucelle (Institut TELECOM; TELECOM SudParis, France); Françoise Preteux (INT, France)

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Text Detection in Personal Image Collections

Cathy Trân (Université de Liège, Belgium); Rob Wijnhoven (ViNotion, The Netherlands); Peter H.N. de With (Eindhoven University of Technology, The Netherlands)

pp. 85-86

T05-S2: Video and Camera-Phone : Algorithms & Architectures

Directional Edge-Based Dog and Cat Face Detection Method for Digital Camera

Akihiko Yamada (SANYO Electric Co., Ltd., Japan); Kazuhiro Kojima (SANYO Electric Co., Ltd., Japan); Jun Kiyama (SANYO Electric Co., Ltd., Japan); Masayoshi Okamoto (SANYO Electric Co., L, Japan); Haruhiko Murata (SANYO Electric Co., Ltd., Japan)

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Hybrid Video-Frame Pre-Processing Architecture for HD-Video

Corneliu Zaharia (Tessera, Romania); Petronel Bigioi (Tessera, Ireland); Peter Corcoran (National University of Ireland, Galway, Ireland)

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Motion Invariant Imaging by Means of Focal Sweep

Dmitry Nikolayevich Znamenskiy (Philips Research, The Netherlands); Harold Schmeitz (Philips Research, The Netherlands); Remco Muijs (Philips Research, The Netherlands)
pp. 91-92

Adaptive Blending Algorithm for Panoramic Image Construction in Mobile Multimedia Devices

KwangWook Lee (Korea University, Korea); June-Young Jung (Korea University, Korea); Seung Won Jung (Korea University, Korea); Aldo Morales (Penn State Harrisburg, USA); Sung Jea Ko (Korea University, Korea)
pp. 93-94

A New Fast and Accurate Training-Based Auto-Focus for Mobile-Phone Cameras

Seung-Yong Lee (Korea University, Korea); Hyo-Tae Lee (Korea University, Korea); Il-Yong Lee (LG Electronics Institute of Technology, Korea); Jong-Woo Han (Korea University, Korea); Sung Jea Ko (Korea University, Korea)
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Color Correction for Mobile Device Camera Image Using a Modified Image Formation Model

Ho-Hyoung Choi (Kyungpook National University, Korea); Kim Hyun Deok (Kyungpook National University, Korea); Kil-Houm Park (Kyungpook National University, Daegu, Korea, Korea); Byoung-Ju Yun (Kyungpook National University, Korea)
pp. 97-98

T06-S1: Human-Computer-Interaction in CE-Devices and Technology**Unicursal Gesture Interface for TV Remote with Touch Screens**

Ryosuke Aoki (NTT Corporation, Japan); Masayuki Ihara (NTT Corporation, Japan); Atsuhiko Maeda (NTT Corporation, Japan); Minoru Kobayashi (NTT Corporation, Japan); Shingo Kagami (Tohoku University, Japan)
pp. 99-100

Back Talk: Engagement Sensing for Enhancing Video Viewing

Andrea Colaço (Massachusetts Institute of Technology, USA); Ig-Jae Kim (Korea Institute of Science and Technology, Korea); Chris Schmandt (Massachusetts Institute of Technology, USA)
pp. 101-102

A Remote Pointing Device by Projecting a Two-Axis Striped Pattern with Modulated IR Signal

Kwangjae Lee (Korea University, Korea); Se-Hwan Yun (Korea University, Korea); Ja-Hyun Koo (Korea University, Korea); Eung-Ju Kim (Korea University, Seoul, Korea); Suki Kim (Korea University, Seoul, Korea)
pp. 103-104

Thinkcontacts: Use Your Mind to Dial Your Phone

Mirko Perkusich (Olivet Nazarene University, USA); Taciana Rached (Federal University of Campina Grande, Brazil); Angelo Perkusich (Federal University of Campina Grande, Brazil)
pp. 105-106

Fusing Mixed Reality and Networked Home Techniques to Improve User Control of Consumer Electronics

Petros Belimpasakis (Nokia Research Center, Finland); Rod Walsh (Nokia Research Center, Finland)
pp. 107-108

Energy Charging Circuits in Bluetooth Environment for Smart Phone

Taikyeong Jeong (Myongji University, USA)
pp. 109-110

Monday, January 10

08:00 - 09:40

T11-S06: CE Applications for Automotive

Automatic Valet Parking System Incorporating a Nomadic Device and Parking Servers

KyoungHwan An (ETRI, Korea); Jeong-Dan Choi (Electronics and Telecommunications Research Institute, Korea); Dong-Yong Kwak (ETRI, Korea)

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An Intelligent Vision-Based Vehicle Detection and Tracking System for Automotive Applications

Yi-Min Tsai (National Taiwan University, Taiwan); Chih-Chung Tsai (National Taiwan University, Taiwan); Keng-Yen Huang (National Taiwan University, Taiwan); Liang-Gee Chen (DSP/IC Design Lab., National Taiwan University, Taiwan)

pp. 113-114

Abiding Geocast for Commercial Ad Dissemination in the Vehicular Ad Hoc Network

Yujin Lim (University of Suwon, Korea); Sanghyun Ahn (University of Seoul, Korea); Kwon-Hee Cho (University of Seoul, Korea)

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Distinction of Road Surface Conditions At Nighttime Using Brightness Co-Occurrence Matrix

Tatsuya Furukane (University of Toyama, Japan); Keiji Shibata (University of Toyama, Japan); Yuukou Horita (University of Toyama, Japan)

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VET, an Epidemic Transport Protocol for Retrieving Multimedia Contents in Vehicular Networks

Claudia Barberis (Politecnico di Torino, Italy); Giovanni Malnati (Politecnico di Torino, Italy)

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T16-S06: Image Processing and HCI

Towards Off-the-Shelf Computer Vision for User Interaction in Consumer Homes

Rod Walsh (Nokia Research Center, Finland); Adrian J Hornsby (Nokia Research Center, Finland)

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Interacting with Displays Through Mobile Device Cameras Using Scale-Invariant Features Matching

Cesare Celozzi (Politecnico di Torino, Italy); Fabrizio Lamberti (Politecnico di Torino, Italy); Gianluca Paravati (Politecnico di Torino, Italy); Andrea Sanna (Politecnico di Torino, Italy)

pp. 123-124

Recognition of Channel Logos From Streamed Videos for Value Added Services in Connected TV

Tanushyam Chattopadhyay (Tata Consultancy Services, Kolkata, India); Aniruddha Sinha (Tata Consultancy Services, India); Arpan Pal (Tata Consultancy Services, India); Debabrata Pradhan (TCS, India); Soumali Roychowdhury (Tata Consultancy Services, India)

pp. 125-126

A Marker-Less Augmented Reality Based on Fast Fingertip Detection for Smart Phones

Haruhisa Kato (KDDI R&D Laboratories Inc., Japan); Tsuneo Kato (KDDI R&D Laboratories Inc., Japan)

pp. 127-128

Fast Mode Decision for H.264/AVC SE with Combined Scalability

Tae-Jung Kim (Chungbuk National University, Korea); Byung-Gyu Kim (SunMoon University, Korea); En-Jong Cha (Chungbuk National University, Korea); Jae-Won Suh (Chungbuk National University, Korea)

pp. 129-130

Computation-Scalable Algorithm for Scalable Video Coding

Te-Heng Wang (National Dong Hwa University, Taiwan); Mei-Juan Chen (National Dong-Hwa University, Taiwan); Ming-Chieh Chi (Utechzone Co., Ltd., Taiwan); Shu-Fen Huang (National Dong-Hwa University, Taiwan); Chia-Hung Yeh (National Sun Yat-Sen University, Taiwan)

pp. 131-132

Enhanced H.264/AVC Deblocking Filter for Stereoscopic Video Coding in Mobile Broadcasting

SeungHo Shin (Chung-Ang University, Korea); JungGul Lee (Chung-Ang University, Korea); Tae-Yong Kim (GSAIM, Chung-Ang Univ, Korea)

pp. 133-134

Generic Techniques to Improve SVC Enhancement Layer Encoding

Sebastiaan Van Leuven (Ghent University - IBBT, Belgium); Glenn Van Wallendael (Ghent University - IBBT, Belgium); Jan De Cock (Ghent University - IBBT, Belgium); Rosario Garrido-Cantos (University of Castilla-La Mancha, Spain); Jose Luis Martínez (University Complutense, Spain); Pedro Cuenca (University of Castill La Mancha, Spain); Rik Van de Walle (Ghent University - IBBT, Belgium)

pp. 135-136

Real-Time Video Processing Framework for Functional Testing of the DTV/STB Devices Based on Heterogeneous Multi-Core Platform

Nemanja Lukic (University of Novi Sad, Serbia); Nikola Teslic (University of Novi Sad, Serbia); Miodrag Temerinac (University of Novi Sad, Serbia); Vukota Pekovic (RT-RK d.o.o., Serbia)

pp. 137-138

Easy Authentication Using Smart Phones and 2-D Barcodes

Mun-Kyu Lee (Inha University, Korea); Bo Kyoung Ku (Inha University, Korea); Jin Bok Kim (Inha University, Korea)

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Human Verifiable Authentication Schemes Geared to Smart Wallet Applications

Gun Il Ma (Soongsil University, Korea); Hyeong Chan Lee (Soongsil University, Korea); Jeong Hyun Yi (Soongsil University, Korea); Hyunsik Ki (Samsung Electronics, Korea); Daeseon Choi (ETRI, Korea); Seung-Hun Jin (ETRI, Korea)

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Toward a Security Model for a Body Sensor Platform

Shervin Amini (Eindhoven University of Technology, The Netherlands); Richard Verhoeven (Eindhoven University of Technology, The Netherlands); Johan J. Lukkien (Eindhoven University of Technology, The Netherlands); Shudong Chen (Eindhoven University of Technology, The Netherlands)

pp. 143-144

A Flexible Access Control Mechanism for Mobile Commerce

Lo Chi-Chun (National Chiao-Tung University, Taiwan); Chun-Chieh Huang (National Chiao Tung University, Taiwan); Chung-Huan Chang (NCTU, Taiwan)

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A Privacy-Enabled Solution for Sharing Social Data in Ad-Hoc Mobile Networks

T15-S06: Invited Session: Gesture Activation of CE Devices

Contactless Gesture Recognition System Using Proximity Sensors

Heng-Tze Cheng (Carnegie Mellon University, USA); An Chen (Qualcomm Incorporated, USA); Ashu Razdan (Qualcomm Incorporated, USA); Elliot Buller (Qualcomm Incorporated, USA)

pp. 149-150

Enabling a Gesture-Based Numeric Input on Mobile Phones

Jiho Choi (Sungkyunkwan University, Korea); Kyohyun Song (Korea Institute of Science and Technology, Korea); Seongil Lee (SungKyunKwan University, Korea)

pp. 151-152

A Reconfigurable Multi-Touch Remote Control System for Teleoperated Robots

Gianluca Paravati (Politecnico di Torino, Italy); Barbara Pralio (Politecnico di Torino, Italy); Andrea Sanna (Politecnico di Torino, Italy); Fabrizio Lamberti (Politecnico di Torino, Italy)

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Using Depth and Skin Color for Hand Gesture Classification

Sung-il Kang (Chung-Ang University, Korea); Annah Roh (Chung-Ang University, Korea); Hyunki Hong (Chung-Ang University, Korea)

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09:45 - 10:35

Keynote: Gary Sullivan, Microsoft

P13: Image Processing - (Poster Session)

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Real-Time Priority Processing on the Cell Platform

Coen Tempelaars (Eindhoven University of Technology, The Netherlands); Martijn M. H. P. van den Heuvel (Eindhoven University of Technology, The Netherlands); Reinder J. Bril (Eindhoven University of Technology, The Netherlands); Stefan Schiemenz (Brandenburg University of Technology, Germany); Christian Hentschel (Brandenburg University of Technology Cottbus, Germany)

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Parallel MPEG-2 Video Encoder

Ravin Sachdeva (STMicroelectronics Private Limited, India); Kaushik Saha (STMicroelectronics, India)

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Depth Estimation From a Monocular Outdoor Image

Tien-Ying Kuo (National Taipei University of Technology, Taiwan); Yi-Chung Lo (National Taipei University of Technology, Taiwan); Yun-Yang Lai (National Taipei University of Technology, Taiwan)

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Vaguelette-Wavelet Decomposition for Real-Time Image Restoration Using Directional Wavelet Bases

Wonseok Kang (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea); Eunsung Lee (Image Processing and Intelligent Sysytem Laboratory, Chung-Ang University, Korea); Sangjin Kim (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea); Joonki Paik (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea)
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Instantaneously Responsive Subtitle Localization and Classification for TV Applications

Bahman Zafarifar (Eindhoven University of Technology, The Netherlands); Jingyue Cao (Eindhoven University of Technology, The Netherlands); Peter H.N. de With (Eindhoven University of Technology, The Netherlands)
pp. 165-166

Human-Centric Navigation System Video Vortex for Video Retrieval

Miki Haseyama (Hokkaido University, Japan); Takahiro Ogawa (Hokkaido University, Japan)
pp. 167-168

Low-Cost Accurate Skin Detection Using Color and Pseudo-Morphological Features

Stavros Paschalakis (Mitsubishi Electric R&D Centre Europe BV, United Kingdom); Alfredo Giani (Mitsubishi Electric R&D Centre Europe B.V., United Kingdom); Sergio Hernandez-Marin (Mitsubishi Electric R&D Centre Europe B.V., United Kingdom)
pp. 169-170

A Motion and Similarity-Based Fake Detection Method for Biometric Face Recognition Systems

YoungHwan Kim (Mokpo University, Korea); Jang-Hee Yoo (Electronics and Telecommunications Research Institute, Korea); Kyoungcho Choi (Mokpo National University, Korea)
pp. 171-172

Gradient Estimation in a Color Filter Array Image and Its Application to Demosaicing

Hye-Rin Choi (Sogang Univ, Korea); Rae-Hong Park (Sogang University, Korea); Ji Won Lee (University of Sogang, Korea)
pp. 173-174

Design of an Adaptive Accelerometer-Based Handwriting Recognition System Based on Metacognitive Framework

Minsu Jang (ETRI, Korea); Jaehong Kim (Electronics & Telecommunication Research Institute (ETRI), Korea); JooChan Sohn (ETRI, Korea); Hyun-Seung Yang (KAIST, Korea)
pp. 175-176

P02: 3D Algorithms (Poster Session)

3D Perception Enhancement Using Depth Map Based Color Processing

Heechul Han (Samsung Electronics, Korea); Jung JinGu (Samsung Electronics, Korea)
pp. 177-178

Adaptive Interpolation for 3D Stereoscopic Video in Frame-Compatible Top-Bottom Packing

Chee Sun Won (Dongguk University, Korea)
pp. 179-180

Error Concealment for Stereoscopic Video Using Illumination Compensation

Shuai Yang (Jilin University, P.R. China); Yan Zhao (Jilin University, P.R. China); Shigang Wang (Jilin University, P.R. China); Hexin Chen (Jilin University, P.R. China)
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Giga Internet-Based 3DTV Trial Service

Nacwoo Kim (ETRI, Korea); Byung Tak Lee (ETRI, Korea)
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Low Complexity 3D Depth Map Generation for Stereo Applications

Cheng-An Chien (National Chung Cheng University, Taiwan); Cheng-Yen Chang (National Chung

P01: Camera & Videocam Algorithms (Poster Session)

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A Non-Linear Approach for Depth From Focus for Digital Cameras

Muhammad Mahmood (Gwangju Institute of Science and Technology, Korea); Ikhyun Lee (Gwangju Institute of Science and Technology, Korea); Wook-Jin Choi (Gwangju Institute of Science and Technology, Korea); Tae-Sun Choi (Gwangju Institute of Science and Technology, Korea)
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Long-Time Video Stabilization Using Point-Feature Trajectory Smoothing

Yeon Geol Ryu (KAIST, Korea); Hyun Chul Roh (KAIST, Korea); Myung Jin Chung (Korea Advanced Institute of Science and Technology, Korea)
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An Embedded Real-Time Fish-Eye Distortion Correction Method Based on Midpoint Circle Algorithm

Yongle Li (National University of Defense Technology, P.R. China); Maojun Zhang (National University of Defense Technology, P.R. China); Bin Wang (National University of Defense Technology, P.R. China)
pp. 191-192

Robust Focus Measure for Unsupervised Auto-Focusing Based on Optimum Discrete Cosine Transform Coefficients

Jaehwan Jeon (Chung-Ang University, Korea); InHye Yoon (Chung-Ang University, Korea); Jin Hee Lee (Chung-Ang University of South Korea, Korea); Joonki Paik (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea)
pp. 193-194

Spatially Adaptive Image Defogging Using Edge Analysis and Gradient-Based Tone Mapping

InHye Yoon (Chung-Ang University, Korea); Jaehwan Jeon (Chung-Ang University, Korea); Jin Hee Lee (Chung-Ang University of South Korea, Korea); Joonki Paik (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea)
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A Low-Complexity Image Stitching Algorithm Suitable for Embedded Systems

Tao-Cheng Chang (National Chung-Cheng University, Taiwan); Cheng-An Chien (National Chung Cheng University, Taiwan); Jia-Hou Chang (Graduate, Taiwan); Jiun-In Guo (National Chung-Cheng University, Taiwan)
pp. 197-198

Color Enhancement of Low Exposure Images Using Histogram Specification and Its Application to Multiple Color Filter Aperture Camera

Eunsung Lee (Image Processing and Intelligent Sysstem Laboratory, Chung-Ang University, Korea); Wonseok Kang (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea); Sangjin Kim (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea); Joonki Paik (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea)
pp. 199-200

Scalable ROI Algorithm for H.264/SVC-Based Video Streaming

Jung-Hwan Lee (Korea University, Korea); Chuck Yoo (Korea University, Korea)
pp. 201-202

Contrast Enhancement Using a Weighted Histogram Equalization

Se-Hwan Yun (Korea University, Korea); Jin Heon Kim (Seokyeong University, Korea); Suki Kim (Korea University, Seoul, Korea)

Fast Head-Shoulder Detection on Mobile Phones

Junqiang Wang (Beijing University of Posts and Telecommunications, P.R. China); Huadong Ma (Beijing University of Posts and Telecommunications, P.R. China); An-Long Ming (Beijing University of Posts and Telecommunications, P.R. China)

pp. 205-206

High-Resolution Digital Zooming Using a Fisheye Lens and Geometric Compensation

Donggyun Kim (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea); Wonseok Kang (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea); Joonki Paik (Image Processing and Intelligent Systems Laboratory, Chung-Ang University, Korea)

pp. 207-208

A Novel Digital Image Stabilization for Mobile Applications

In sung Koh (Hanyang University, Korea); Se-Yong Ro (Hanyang University, Korea); Jong-Park Kim (Hynix Semiconductor, Korea); Kyeong Yuk Min (Hanyang University, Korea); Jong-Wha Chong (Hanyang University, Korea)

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T03-S2: Video Distribution 2 - Wireless

High-Definition Video Distribution in 802.11g Home Wireless Networks

Victor Miguel (Universidad Politécnica de Madrid, Spain); Julián Cabrera (Universidad Politécnica de Madrid, Spain); Fernando Jaureguizar (Universidad Politécnica de Madrid, Spain); Narciso García (Universidad Politécnica de Madrid, Spain)

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Variable FEC to Reduce ECC Overhead in Digital Video Transmission

Mohammad Mushtaq (University of South Alabama, USA); Samuel Russ (University of South Alabama, USA); Mohammad Alam (University of South Alabama, USA)

pp. 213-214

Online Interactive Video Content Retrieval

Andrei Bursuc (Institut TELECOM; TELECOM SudParis, France); Titus Zaharia (Institut TELECOM, France); Françoise Preteux (INT, France)

pp. 215-216

T16-S01: Social Impacts and Techniques for CE

The Perfect Wave? the Impact of Kondratieff Cycles on Life Satisfaction in an IT-Ecosystem

Klaus Reinprecht (Technical University Braunschweig, Germany); Elke Muhrer (Technical University Braunschweig, Germany); Mark Vollrath (Technical University Braunschweig, Germany)

pp. 217-218

Social Network Analysis of Trends in the Consumer Electronics Domain

Muaz A Niazi (University of Stirling, United Kingdom); Amir Hussain (University of Stirling, United Kingdom)

pp. 219-220

TAGGEMENDOR: Relating Multimedia Using Folksonomies

Ana Peleteiro (University of Vigo, Spain); Marta Rey-López (Consellería de Educación e O.U., Spain); Juan Martín-Pernas (3Centro Tecnológico de Automoción de Galicia, Spain); Juan C. Burguillo (University of Vigo, Spain); Fernando Mikic-Fonte (Universidad de Vigo, Spain)

pp. 221-222

TripFromTV+: Exploiting Social Networks to Arrange Cut-Price Touristic Packages

Yolanda Blanco-Fernández (University of Vigo, Spain); Martin Lopez-Nores (University of Vigo, Spain); Jose Juan Pazos-Arias (Universidad de Vigo, Spain); Jorge Garcia-Duque (University of Vigo, Spain); Manuela I Martín-Vicente (University of Vigo, Spain)
pp. 223-224

T05-S1: Home Media Servers and Services I

Architecture of a Home Gateway for Three-Screen TV

Eun Seok Ryu (Georgia Institute of Technology, USA); Nikil Jayant (Georgia Institute of Technology, USA)
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Media Cloud: Sharing Contents in the Large

Daniel Diaz-Sanchez (Universidad Carlos III de Madrid, Spain); Florina Almenares (Universidad Carlos III de Madrid, Spain); Andres Marin (University Carlos III of Madrid, Spain); Davide Proserpio (Universidad Carlos III de Madrid, Spain)
pp. 227-228

Integrated Home Gateway Design for Enabling P2P Content Sharing in UPnP-Based Home Networks

Chih-Lin Hu (National Central University, Taiwan); Lin Hsin-Cheng (National Central University, ROC, Taiwan); Bing-Jung Hsieh (National Central University, ROC, Taiwan); Yu-Feng Hsu (National Central University, ROC, Taiwan)
pp. 229-230

Evaluation of a Background Push Download Service for Personal Multimedia Devices

Francisco Fraile (Universidad Politecnica de Valencia, Spain); Ismael de Fez (Universidad Politécnica de Valencia, Spain); Roman Belda (Universidad Politecnica de Valencia, Spain); Juan C. Guerri (Universidad Politecnica Valencia, Spain)
pp. 231-232

T09-S2: Networks: Applications 01

A System for Logging Operation Histories of DLNA Devices by Combining ARP Spoofing and SSDP

Shunsuke Saruwatari (The University of Tokyo, Japan); Johan Hjelm (Ericsson Research, Japan); Toshikane Oda (Ericsson Japan, Japan); Hiroyuki Morikawa (The University of Tokyo, Japan)
pp. 233-234

Bridging Light Applications to the IP Domain

Vinh T. Bui (Eindhoven University of Technology, The Netherlands); Johan J. Lukkien (Eindhoven University of Technology, The Netherlands); Emmanuel Frimout (Philips Lighting, The Netherlands); Gerard Broeksteeg (Philips Lighting, The Netherlands)
pp. 235-236

Location-Based Distributed Mobile Storage Short-Range Wireless Communication

Hiromi Narimatsu (The University of Electro-Communications, Japan); Hiroyuki Kasai (The University of Electro Communication, Japan); Ryoichi Shinkuma (Kyoto University, Japan)
pp. 237-238

T15-S04: Invited Session - Green CE Technologies I

Nonintrusive Appliance Load Monitoring: Review and Outlook

Michael Zeifman (Fraunhofer Center for Sustainable Energy Systems, USA); Kurt Roth (Fraunhofer Center for Sustainable Energy Systems CSE, USA)
pp. 239-240

The HomePlug Green PHY Specification & the In-Home Smart Grid

Jim Zyren (Atheros Communications, USA)

pp. 241-242

Inter-device Power Management for Audio/Video Equipment

Bruce Nordman (Lawrence Berkeley National Laboratory, USA); Steven M Lanzisera (Lawrence Berkeley National Laboratory, USA)

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Electronics and Network Energy Use: Status and Prospects

Bruce Nordman (Lawrence Berkeley National Laboratory, USA); Steven M Lanzisera (Lawrence Berkeley National Laboratory, USA)

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12:30 - 14:00

Keynote: CE Society Awards/ New Fellow - President IEEE CE Society – Keynote from Stephen Dukes

14:10 - 15:50

T01-S5: Video Quality Enhancement

Local Estimation of Video Compression Artifacts

Jelte Peter Vink (Philips Research, The Netherlands); Gerard Haan (Philips Research Laboratories, The Netherlands); Harold Schmeitz (Philips Research, The Netherlands)

pp. 247-248

Hierarchical Edge-Directed Interpolation for De-Interlacing

Fan Zhai (Texas Instruments, USA)

pp. 249-250

Compression Artifacts Reduction for MPEG-2 Video Utilizing Total Variation Regularization Method

Yuki Kato (Nagoya Institute of Technology, Japan); Tomio Goto (Nagoya Institute of Technology, Japan); Satoshi Hirano (Nagoya Institute of Technology, Japan)

pp. 251-252

New Learning-Based Super Resolution Utilizing Total Variation Regularization Method

Shotaro Suzuki (Nagoya Institute of Technology, Japan); Tomio Goto (Nagoya Institute of Technology, Japan); Satoshi Hirano (Nagoya Institute of Technology, Japan); Masaru Sakurai (Nagoya Institute of Technology, Japan)

pp. 253-254

High Dynamic Range Rendering Method for YUV Images with Global Luminance Correction

Masato Toda (NEC Corporation, Japan); Masato Tsukada (NEC Corporation, Japan)

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T16-S02: Access Control and Security

IPTV CAS Using Efficient Group Key Management Scheme

Yonggoo Kang (Hanyang University, Korea); Jihwan Lim (Hanyang University, Korea); Heekuck Oh (Hanyang University, Korea); Sangjin Kim (Korea University of Technology and Education, Korea)

pp. 257-258

User Availability Estimation Prototype for Home and Office Use

Milan Bjelica (University of Novi Sad, Serbia); Bojan Mrazovac (University of Novi Sad, Serbia); Istvan Papp (University of Novi Sad, Serbia); Nikola Teslic (University of Novi Sad, Serbia)

Seamless and Secure Service Framework Using Multiple Network Interface Terminal

Sunghyun Yoon (ETRI, Korea); Sangjin Hong (ETRI, Korea); Jongtae Song (ETRI, Korea); Soon-Seok Lee (Electronics and Telecommunications Research Institute, Korea); Sang-Ha Kim (Chungnam National University, Korea)

pp. 261-262

Smartphone Remote Lock and Wipe System with Integrity Checking of SMS Notification

Kyungwhan Park (Soongsil University, Korea); Gun Il Ma (Soongsil University, Korea); Jeong Hyun Yi (Soongsil University, Korea); Sang Rae Cho (ETRI (Electronics and Telecommunications Research Institute), Korea); YoungSeob Cho (Electronics and Telecommunications Research Institute, Korea); Sungeun Park (KSIGN, Korea)

pp. 263-264

Action-Based Graphical Password: "Click-a-Secret"

Marc Éluard (Technicolor, France); Yves Maetz (Technicolor, France); Davide Alessio (Technicolor, France)

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Tut02: Tutorial 02 - IPTV Services and Technologies

T11-S03: Gaming Technologies

Tangible Baseball Supporting System Based on Social Media

Changhyeon Lee (Korea Institute of Science & Technology, Korea); Jungwook Song (Korea Institute of Science and Technology, Korea); Hye Min Choi (Korea Institute of Science and Technology, Korea); Yong-Moo Kwon (Korea Institute of Science and Technology, Korea); Heedong Ko (Korea Institute of Science and Technology, Korea)

pp. 267-268

Analysis on Virtual Interaction-Induced Fatigue and Difficulty in Manipulation for Interactive 3D Gaming Console

Yongwan Kim (Electronics and Telecommunications Research Institute, Korea); Gun Lee (Electronics and Telecommunications Research Institute, Korea); Dongsik Jo (Electronics and Telecommunications Research Institute, Korea); Ungyeon Yang (ETRI, Korea); Ki-Hong Kim (Electronics and Telecommunications Research Institute, Korea); Jinah Park (Korea Advanced Institute of Science and Technology, Korea)

pp. 269-270

Implementing OpenGL SC Over OpenGL 1.1+

Nakhoon Baek (Kyungpook National University, Korea); Hwanyong Lee (Huone Inc., Korea)

pp. 271-272

3-DOF Vs. 6-DOF - Playful Evaluation of Complex Haptic Interactions

Rene Weller (Clausthal University, Germany); Gabriel Zachmann (Clausthal University of Technology, Greece)

pp. 273-274

Tennis Real Play

Jui-Hsin Lai (National Taiwan University, Taiwan); Po-Chen Wu (National Taiwan University, Taiwan); Chieh-Li Chen (National Taiwan University, Taiwan); Chieh-Chi Kao (National Taiwan University, Taiwan); Shao-Yi Chien (National Taiwan University, Taiwan)

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T15-S07: Invited Session - Cooperative Driving Technologies for Automotive

Traffic Information Service Based on Vehicle Ad-Hoc Network

Jae-Hong Ryu (ETRI, Korea); Mihee Yoon (Chungbuk Provincial University, Korea); Dongwon Kim (Chungbuk Prov. University, Korea)

Advisory and Autonomous Cooperative Driving Systems

Thijs Van den Broek (Netherlands Organisation for Applied Scientific Research TNO, The Netherlands); Jeroen Ploeg (Netherlands Organisation for Applied Scientific Research TNO, The Netherlands); Bart Netten (Netherlands Organisation for Applied Scientific Research TNO, The Netherlands)

pp. 279-280

Communication Requirements of Emerging Cooperative Driving Systems

Elisabeth Uhlemann (Halmstad University, Sweden)

pp. 281-282

Vehicle Localization for Cooperative Driving: Challenges and Research Activities

Robin Schubert (Chemnitz University of Technology, Germany)

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P06: Other CE Technologies (Poster Session)

System Generation Tool for OSEK/VDX Based Automotive Software Development

Jung Wook Lee (ETRI, Korea); Jang Woon Baek (ETRI, Korea); JaeYoung Kim (ETRI, Korea)

pp. 285-286

Social TV Service: A Case Study

Kang Yong Lee (ETRI, Korea); Cho Kee Seong (Access Mediator Research Team, ETRI, Korea); Won Ryu (ETRI, Korea)

pp. 287-288

Android Phone as Wireless USB Storage Device Through USB/IP Connection

Kyuchang Kang (ETRI, Korea); Dong-oh Kang (ETRI, Korea); Kiryong Ha (ETRI, Korea); Hyung Jik Lee (ETRI, Korea); Jeunwoo Lee (ETRI, Korea)

pp. 289-290

Active Clock Duty-Cycle Correction for Mobile Display Serial Strobe Encoding Interface

Eung-Ju Kim (Korea University, Seoul, Korea); Kwangjae Lee (Korea University, Korea); Choon Ki Ahn (Seoul National University of Science & Technology, Korea); Shin_il Lim (Seokyeong University, Seoul, Korea); Suki Kim (Korea University, Seoul, Korea)

pp. 291-292

Development of an Indoor Location-Based System Using Sensor Networks

Jonghyun Kim (Telcaware Co., Ltd, Korea); Dongho Lee (University of Kwangwoon, Korea); Kwangsue Chung (Kwangwoon University, Korea)

pp. 293-294

Design and Implementation of an Embedded Home Surveillance System with Ultra-Low Alert Power

Y. W. Bai (Fu Jen Catholic University, Taiwan); Zi-Li Xie (Fu Jen Catholic University, Taiwan); Zong-Han Li (Fu Jen Catholic University, Taiwan)

pp. 295-296

An Efficient Architecture of One Chip Network Processor for IEC61850

Re-Sen Ahn (Hanyang University, Korea); In sung Koh (Hanyang University, Korea); Eun-Kyu In (Hanyang University, Korea); Kyeong Yuk Min (Hanyang University, Korea); Jong-Wha Chong (Hanyang University, Korea)

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Gigabit UWB Video Transmission System for Wireless Video Area Network

Sangjae Lee (Electronics and Telecommunications Research Institute, Korea); Seung Sik Lee (ETRI, Korea); Young-Ae Jeon (ETRI, Korea); Sangsung Choi (Electronics and Telecommunications Research Institute(ETRI), Korea); Kyoung-Rok Cho (Chungbuk National University, Korea)
pp. 299-300

An Efficient File System for Large-Capacity Storage with Multiple NAND Flash Memories
Sang Oh Park (Chung-Ang University, Korea); Sung-Jo Kim (Chung-Ang University, Korea)
pp. 301-302

Finger Gesture-Based Mobile User Interface Using a Rear-Facing Camera
Junho An (Sungkyunkwan University, Korea); Kwang-Seok Hong (Sungkyunkwan University, Korea)
pp. 303-304

AV Controller with Dynamic GUI Improved by Human Error Detection
Sumie Yamada (Ryukoku University, Japan); Takako Nonaka (Ryukoku University, Japan); Tomohiro Hase (Ryukoku University, Japan)
pp. 305-306

AV Remote Controller to Recognize Handwritten Pictograms and Characters
Tomoya Nakata (Ryukoku University, Japan); Takako Nonaka (Ryukoku University, Japan); Masahiro Yonezawa (Ryukoku University, Japan); Tomohiro Hase (Ryukoku University, Japan)
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P10: Green CETechnologies (Poster Session)

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Software Prober for Power Consumption Analysis of Embedded Linux Applications
Jang Woon Baek (ETRI, Korea); Dae-Wha Seo (Kyungpook National University, Korea)
pp. 309-310

Flexible Structural Power Monitoring Device with Clamp Type CT Sensors
Insung Hong (Chung-Ang University, Korea); Sehyun Park (Chung-Ang University, Korea)
pp. 311-312

P15: Video Encoding & Distribution - (Poster Session)

.....

VoD Streaming Synchronization Mechanism with Multiple Users for Service Continuity
Yoon-Sik Yoo (ETRI, Korea); Jungsik Sung (ETRI, Korea); Young-Sik Chung (ETRI, Korea); Eui-Hyun Paik (ETRI, Korea)
pp. 313-314

Video Prioritization for Unequal Error Protection
Pablo Pérez (Alcatel-Lucent, Spain); Narciso García (Universidad Politécnica de Madrid, Spain)
pp. 315-316

TV Channel Sharing System Using Wireless Network
Dongmahn Seo (Korea Institute of Science and Technology, Korea); Suhyun Kim (Korea Institute of Science and Technology, Korea); Heedong Ko (Korea Institute of Science and Technology, Korea); Soobin Jeon (Kangwon National University, Korea); Daeho Kim (Kangwon National University, Korea); Inbum Jung (Kangwon National University, Korea)
pp. 317-318

Fast Stream Joiner for Next-Generation Interactive Video
Naofumi Uchihara (The University of Electro-Communications, Japan); Hiroyuki Kasai (The University of Electro Communication, Japan)
pp. 319-320

Analysis of Drift-Error Propagation in H.264/AVC Video Transcoding

Kwee-Li Cheng (The University of Electro-Communications, Japan); Naofumi Uchihara (The University of Electro-Communications, Japan); Hiroyuki Kasai (The University of Electro Communication, Japan)
pp. 321-322

A Simple Mechanism for Seamless Media Streaming and Playing Services in a Ubiquitous Home Network

Kuo-Fu Huang (National Central University, Taiwan); Chih-Lin Hu (National Central University, Taiwan)
pp. 323-324

Reducing Memory Requirements in a Multimedia Streaming Application

Mike Holenderski (Eindhoven University of Technology, The Netherlands); Reinder J. Bril (Eindhoven University of Technology, The Netherlands); Johan J. Lukkien (Eindhoven University of Technology, The Netherlands)
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Signaling of Multi-Channel for High Definition Dual-Stream 3DTV Services

Joon-Young Jung (ETRI, Korea)
pp. 327-328

An Adaptive Sharpening Filter Using Quantization Step Size and Pixel Variance in H.264/AVC

Sye-Hoon Oh (GalaxiaCommunications co., Ltd, Korea); Yeo-Song Lee (Galaxia Communications Co., Ltd., Korea); Heon-Joo Kim (GalaxiaCommunications, Korea); SeongHoon Kim (GalaxiaCommunications, Korea)
pp. 329-330

EAFR-Based DLNA Proxy for High-Quality Video Distribution in Extended Home Space

Taein Hwang (ETRI, Korea); Hojin Park (ETRI, Korea); Eui-Hyun Paik (ETRI, Korea); Jinwook Chung (SKKU, Korea)
pp. 331-332

Preliminary Implementation of Two Parallel Programs for Fractal Image Coding on GPUs

Akiyoshi Wakatani (Konan University, Japan)
pp. 333-334

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T03-S3: H.264 Transcoding and Streaming

Optimal H.264/AVC Video Transcoding System

Fatma Al-Abri (Loughborough University, United Kingdom); Edirisinghe Eran (Loughborough University, United Kingdom); Jan De Cock (Ghent University - IBBT, Belgium); Rik Van de Walle (Ghent University - IBBT, Belgium)
pp. 335-336

Priority-Based Selective H.264 SVC Video Streaming Over Erroneous Multiple Networks

Eun Seok Ryu (Georgia Institute of Technology, USA); Hye-Soo Kim (Korea University, Korea); Sungjun Park (Innoace, Korea); Chuck Yoo (Korea University, Korea)
pp. 337-338

An H.264/AVC to SVC Temporal Transcoder in Baseline Profile

Rosario Garrido-Cantos (University of Castilla-La Mancha, Spain); Jan De Cock (Ghent University - IBBT, Belgium); Jose Luis Martínez (University Complutense, Spain); Sebastiaan Van Leuven (Ghent University - IBBT, Belgium); Pedro Cuenca (University of Castill La Mancha, Spain); Antonio Garrido (Universidad Castilla La Mancha, Spain); Rik Van de Walle (Ghent University - IBBT, Belgium)
pp. 339-340

Raptor Coding of H.264 Data-Partitioned Video Over a WiMAX Channel

Laith A Al-Jobouri (University of Essex, United Kingdom); Martin Fleury (University of Essex,

United Kingdom); Mohammad Ghanbari (University of Essex, United Kingdom)
pp. 341-342

Region of Interest Support in Scalable Multi-View Video Coding

Yi Lai (AIAR, Xi'an Jiaotong University, Xi'an, P.R. China); Xuguang Lan (Xi'an Jiaotong University, P.R. China); Xiangwei Li (AIAR, Xi'an Jiaotong University, Xi'an, P.R. China); Yuehu Liu (AIAR, Xi'an Jiaotong University, Xi'an, P.R. China); Nanning Zheng (Xi'an Jiaotong University, P.R. China)
pp. 343-344

T11-S01: Recommender Systems in CE

Property-Based Collaborative Filtering for Health-Aware Recommender Systems

Martin Lopez-Nores (University of Vigo, Spain); Yolanda Blanco-Fernández (University of Vigo, Spain); Jose Juan Pazos-Arias (Universidad de Vigo, Spain); Jorge Garcia-Duque (University of Vigo, Spain); Alberto Gil-Solla (University of Vigo, Spain)
pp. 345-346

moreTourism: Mobile Recommendations for Tourism

Marta Rey-López (Consellería de Educación e O.U., Spain); Belén Barragáns-Martínez (Centro Universitario de la Defensa, Escuela Naval Militar, Marín, Spain); Ana Peleteiro (University of Vigo, Spain); Fernando Mikic-Fonte (Universidad de Vigo, Spain); Juan C. Burguillo (University of Vigo, Spain)
pp. 347-348

Improving Collaborative Recommendation of Coupons Through Digital TV by Semantic Inference of Users' Reputation

Manuela I Martín-Vicente (University of Vigo, Spain); Alberto Gil-Solla (University of Vigo, Spain); Manuel Ramos-Cabrer (University of Vigo, Spain); Yolanda Blanco-Fernández (University of Vigo, Spain); Martin Lopez-Nores (University of Vigo, Spain)
pp. 349-350

Video Content Recommendation for Group Based on Viewing History and Viewer Preference

Shunichi Seko (NTT Cyber Solutions Laboratories, Japan); Manabu Motegi (NTT, Japan); Takashi Yagi (NTT Cyber Solutions Laboratories, Japan); Shinyo Muto (NTT, Japan)
pp. 351-352

Which App? a Recommender System of Applications in Markets by Monitoring Users' Interaction

Enrique Costa-Montenegro (University of Vigo, Spain); Belén Barragáns-Martínez (Centro Universitario de la Defensa, Escuela Naval Militar, Marín, Spain); Marta Rey-López (Consellería de Educación e O.U., Spain); Fernando Mikic-Fonte (Universidad de Vigo, Spain); Ana Peleteiro (University of Vigo, Spain)
pp. 353-354

Prediction of TV-Station Ratings Based on Content Recommenders

Rafael Sotelo (Universidad de Montevideo, Uruguay); Yolanda Blanco-Fernández (University of Vigo, Spain); Alberto Gil-Solla (University of Vigo, Spain); Manuel Ramos-Cabrer (University of Vigo, Spain); Martin Lopez-Nores (University of Vigo, Spain)
pp. 355-356

T10-S2: Security for CE Systems

Digital Emulation of Consumer-Ownable Products

Paul Sweazey (IEEE P1817 Working Group, USA); Antonius Kalker (Hewlett-Packard, USA); Charles Thill (Bitwise Legal, USA)
pp. 357-358

AMY: A Simple and Secure Way to Connect Devices Using Pairing-Based Cryptography

Wook Shin (KDDI R&D Laboratories, Inc., Japan); Kazuhide Fukushima (KDDI R&D Laboratories Inc., Japan); Shinsaku Kiyomoto (KDDI R&D Laboratories Inc., Japan); Toshiaki Tanaka (KDDI R&D Laboratories Inc., Japan)
pp. 359-360

Exploration and Enhancement of P1619-Based Crypto-Cores for Efficient Performance
Epameinontas Hatzidimitriou (University of Patras, Greece); Athanasios Kakarountas (Technological & Educational Institute of Ionian Islands, Greece); Athanasios Milidonis (Technological Educational Institute of Athens, Greece)
pp. 361-362

Transfer Acceleration of Content Usage Control Information by Using Base-Values Reference Method
Toshiyuki Masue (Hitachi Ltd., Japan); Tatsuya Hirai (Hitachi, Ltd., Japan); Takeshi Shikama (Hitachi Global Storage Technologies, Ltd, Japan)
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IPTV Meets Delegation: Achieving IPTV Service Portability
Davide Proserpio (Universidad Carlos III de Madrid, Spain); Fabio Sanvido (Universidad Carlos III de Madrid, Spain); Daniel Diaz-Sanchez (Universidad Carlos III de Madrid, Spain); Andres Marin (University Carlos III of Madrid, Spain)
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ZigBee Security for Home Automation Using Attribute-Based Cryptography
Hwajeong Seo (Pusan National University, Korea); Cheol Soo Kim (Csinfotel, Korea); Ho Won Kim (Pusan National University, Korea)
pp. 367-368

T08-S04: OFDM Applications I

A New DSI-SLM Method for PAPR Reduction in OFDM Systems
Somayeh Mohammady (University Putra Malaysia, Malaysia); Roslina M Sidek (Universiti Putra Malaysia, Malaysia); Pooria Varahram (UPM, Malaysia); Nizar Hamidon (Universiti Putra Malaysia, Malaysia); Nasri Sulaiman (Universiti Putra Malaysia, Malaysia)
pp. 369-370

Cooperative Reception Using Scattered Pilot Symbol for ISDB-T One-Segment Service
Naoki Kobayashi (Tokyo University of Science, Japan); Kohei Ohno (Tokyo University of Science, Japan); Makoto Itami (Tokyo University of Science, Japan)
pp. 371-372

Frequency Offsets Compensation for Multiuser Interference Cancellation in OFDMA Uplink Systems
Yu Jun Won (Chung-Buk National University, Korea); Kim Jung-Woo (Chungbuk National University, Korea); Bo Seok Seo (Chungbuk National University, Korea)
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Improving Equalization Performance with Noise Reduction for DVB-T/H
Eun Su Kang (Kyungpook national university, Korea); Dong Seog Han (Kyungpook National University, Korea)
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T15-S10: Invited Session: Advances & Challenges in HD Interconnects

Investigating the New 64b/66b Encoding Scheme's Power Spectral Density
Karthik Balasubramanian (Pennsylvania State University, USA); Aldo Morales (Penn State Harrisburg, USA); Sedig S Agili (Penn State University, USA)
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08:00 - 09:40

T11-S13: Cloud Computing & Metadata Techniques for CE

Cloud Transcoding for Mobile Video Content Delivery

Adriana Garcia (Florida Atlantic University, USA); Hari Kalva (Florida Atlantic University, USA)
pp. 379-380

Efficient Personalized Scalable Video Adaptation Decision-Taking Engine Based on MPEG-21

Laura Arnaiz (Universidad Politécnica de Madrid, Spain); José Manuel Menéndez (Universidad Politécnica de Madrid, Spain); David Jimenez Bermejo (Universidad Politécnica de Madrid, Spain)
pp. 381-382

A Robust Middleware Architecture for Intelligent Data Aggregation and Video Surveillance

Tamer Mohamed (University of Calgary, Canada); Mohamed Shehata (University of Calgary, Canada); Wael Badawy (Calgary, Canada)
pp. 383-384

Personal Networks Federation in Mobile DTV

Florina Almenares (Universidad Carlos III de Madrid, Spain); Andres Marin (University Carlos III of Madrid, Spain); Daniel Diaz-Sanchez (Universidad Carlos III de Madrid, Spain); Patricia Arias (Universidad Carlos III de Madrid, Spain)
pp. 385-386

Lightweight Interactive Multimedia Environment for TV

Fernando M Matsubara (Mitsubishi Electric Corporation, Japan); Masahito Kawamori (Nippon Telegraph and Telephone Corporation, Japan)
pp. 387-388

08:00 - 09:45

Tut05: Tutorial 05 - An Introduction to OpenCL

08:00 - 09:40

T08-S05: OFDM Applications II

Iterative Impulsive Noise Reduction by Generating Its Replica Signal in OFDM Reception

Takuya Kitamura (Tokyo University of Science, Japan); Kohei Ohno (Tokyo University of Science, Japan); Makoto Itami (Tokyo University of Science, Japan)
pp. 389-390

SDR Implementation of a DVB-T2 Transmitter: The Core Building Blocks

Carlo Fantozzi (University of Padova, Italy); Lorenzo Vangelista (University of Padova, Italy); Daniele Vogrig (Università di Padova, Italy); Ottavio Campana (University of Padova, Italy)
pp. 391-392

Reed-Solomon Decoder Optimization for PC-Based DVB-T Software Radio Receiver

Jian-Cheng Yu (National Taipei University of Technology, Taiwan); Jheng-Zong Shih (National Taipei University of Technology, Taiwan); Yueh-Teng Hsu (Lite-on Technology Corp., Taiwan); Shu-Ming Tseng (National Taipei University of Technology, Taiwan)
pp. 393-394

New 4-Dimensional Constellation-Rotation Modulation Method for DVB-NGH

Junho Kim (Chonnam National University, Korea); Hojun Kim (Chonnam national university, Korea); Tae Jin Jung (Chonnam National University, Korea); Cheol Sung Kim (Chonnam National University, Korea); JaeHwui Bae (Electronics and Telecommunications Research Institute,

Korea); GwangSoon Lee (ETRI, Korea)
pp. 395-396

Iterative Channel Decoding for PC-Based Software Radio DVB-T Receiver

Jian-Cheng Yu (National Taipei University of Technology, Taiwan); Yueh-Teng Hsu (Lite-on Technology Corp., Taiwan); Shin-En Wang (Chunghua Telecom, Taiwan); Shu-Ming Tseng (National Taipei University of Technology, Taiwan)
pp. 397-398

T02-S3: Implementations and Architectures for Image/Video Codecs

An Efficient Methodology for Transaction-Level Design of Multi-Core H.264 Video Decoder

Bingbing Xia (University of Tsinghua, P.R. China); Fei Qiao (Tsinghua University, P.R. China); Huazhong Yang (Tsinghua University, P.R. China); Hui Wang (Tsinghua University, P.R. China)
pp. 399-400

A DSP Based H.264/SVC Decoder for a Multimedia Terminal

Fernando Pescador (Universidad Politécnica de Madrid, Spain); David Samper (Universidad Politécnica de Madrid, Spain); Mickael Raulet (IETR-INSa Rennes, France); Eduardo Juarez (Universidad Politécnica de Madrid, Spain); Cesar Sanz (Universidad Politécnica de Madrid, Spain)
pp. 401-402

Hardware Architecture for Real Time H.264 CABAC Decoding for HDTV Applications

Sumit Johar (STMicroelectronics Private Limited, India); Ravin Sachdeva (STMicroelectronics Private Limited, India); Daniele Alfonso (STMicroelectronics, Italy)
pp. 403-404

Low Power Architecture Design and Hardware Implementations of Deblocking Filter in H.264/AVC

Hua-Chang Chung (National Central University, Taiwan); Zong-Yi Chen (National Central University, Taiwan); Pao-Chi Chang (National Central University, Taiwan)
pp. 405-406

Efficient Fast Algorithm and FPSoC for Integer and Fractional Motion Estimation in H.264/AVC

Obianuju Ndili (Santa Clara University, USA); Tokunbo Ogunfunmi (Santa Clara University, USA)
pp. 407-408

T04-S2: Noise Reduction in Audio Applications

Using Real-Time Adaptive Noise Masking to Mitigate Ambient Interferences

Gang Ren (University of Rochester, USA); Gregory Bocko (University of Rochester, USA); Justin Lundberg (University of Rochester, USA); Mark Bocko (University of Rochester, USA); Dave Headlam (University of Rochester, USA)
pp. 409-410

Aural Environment Adjustment for Noise Cancelling Headphones Employing Early Reverberation Signature

Gang Ren (University of Rochester, USA); Justin Lundberg (University of Rochester, USA); Gregory Bocko (University of Rochester, USA); Dave Headlam (University of Rochester, USA); Mark Bocko (University of Rochester, USA)
pp. 411-412

A Phase-Dependent a Priori SNR Estimator in the Log-Mel Spectral Domain for Speech Enhancement

Yun-Kyung Lee (Chungbuk National University, Korea); Oh-Wook Kwon (Chungbuk National University, Korea)
pp. 413-414

A Mechanical-Noise Suppressor Based on a Priori Noise Information for Digital Still Cameras and Camcorders

Akihiko K. Sugiyama (NEC Corporation, Japan); Tsutomu Maeda (Renesas Electronics, Japan); Kwangsoo Park (Renesas Electronics, Japan)
pp. 415-416

Speech Enhancement Based on Spectral Subtraction for Speech Recognition System

Se Young Kim (Korea Maritime University, Korea); Jeong-Woo Han (Korea Maritime University, Korea); Kiman Kim (Korea Maritime University, Korea); Jiwon Jung (Korea Maritime University, Korea); Young Yun (Korea Maritime University, Korea)
pp. 417-418

09:45 - 10:35

Keynote: Joe Kane

P18: RF & Wireless - (Poster Session)

.....

Design and Implementation of MB-OFDM UWB Modem

Dohoon Kim (Korea Electronics Technology Institute, Korea); Yongseok Lim (Korea Electronics Technology Institute, Korea); Jin-Woong Cho (Korea Electronics Technology Institute, Korea); Chungyong Lee (Yonsei University, Korea)
pp. 419-420

Design and Implementation of Hardware-Based Exciter for Reliable AT-DMB Field Test

Byungjun Bae (Electronics and Telecommunications Research Institute, Korea); Ji-Bong Lee (ETRI, Korea); Yun-Jeong Song (Electronics and Telecommunications Research Institute, Korea); Soo-In Lee (Electronics and Telecommunications Research Institute, Korea)
pp. 421-422

Capacity of Frequency Selective Fading Channel in MIMO Single Frequency Network for 3D-HDTV Terrestrial Broadcasting

Jae-kil Kim (Chungnam National University, Korea); Jeongbeen Kim (Chungnam national university, Korea); Jinyong Hwang (Chungnam National University, Korea); Dong-chul Shin (Chungnam National University, Korea); Jaemin Ahn (Chungnam National University, Korea)
pp. 423-424

Performance Comparison of Taylor Series Approximation and CORDIC Algorithm for Open-Loop Polar Transmitters

Sunho Kim (University of Soongsil, Korea); Jino Oh (Soongsil University, Korea); Sungbin Im (Soongsil University, USA)
pp. 425-426

A WiX RF Transceiver for Gbps Wireless Communication

Seung Sik Lee (ETRI, Korea); Sangjae Lee (Electronics and Telecommunications Research Institute, Korea); Sangsung Choi (Electronics and Telecommunications Research Institute(ETRI), Korea); Sungtek Kahng (University of Incheon, Korea)
pp. 427-428

Large Scale Active RFID System Utilizing ZigBee Networks

Hyuntae Cho (Pusan national university, Korea); Hyunsung Jang (Pusan national university, Korea); Yunju Baek (Pusan National University, Korea)
pp. 429-430

Efficient Interference Cancellation Scheme of UWB/MIMO System for Wireless Personal

Area Network

Jung Nam Bae (Kwangwoon University, Korea); Jun Heo (Korea University, Korea); Jin Young Kim (Kwangwoon University, Korea)
pp. 431-432

TxD Insertion System for DTV Auxiliary Data Transmission

Young-Woo Suh (KBS, Korea); Jaekwon Lee (KBS, Korea); Sung Ik Park (Electronics and Telecommunications Research Institute (ETRI), Korea); Jin-Yong Choi (Yonsei University, Korea); JongSoo Seo (Yonsei University, Korea)
pp. 433-434

Development of the Real-Sense Media Broadcasting Service System Based on the SMMD

Jae-Kwan Yun (, Korea); Jonghyun Jang (Electronics and Telecommunications Research Institute, Korea); Kyeong-Deok Moon (Electronics and Telecommunications Research Institute, Korea)
pp. 435-436

Reduced Complexity MLSD Equalizers Based on Bidirectional DFEs

Jangwoo Park (Korea University, Korea); Youngsun Ha (Korea University, Korea); Wonzoo Chung (Korea University, Korea)
pp. 437-438

An Optimum Decision Feedback Equalizer for SC-FDMA Systems

Su-Kyoung Lee (Chungbuk National University, Korea); Yong-Hyun Park (Chungbuk National University, Korea); Bo Seok Seo (Chungbuk National University, Korea)
pp. 439-440

A Novel Low-Power 64-Point Pipelined FFT/IFFT Processor for OFDM Applications

Chu YU (National ILan University, Taiwan); Yi-Ting Liao (National ILan University, Taiwan); Mao-Hsu Yen (National Taiwan Ocean University, Taiwan); Pao-Ann Hsiung (National Chung Cheng University, Taiwan); Sao-Jie Chen (National Taiwan University, Taiwan)
pp. 441-442

Coding-Aware Real-Time Routing in Multi-Hop Wireless Sensor Networks

Junwhan Kim (Virginia Tech, USA); Seong-hee Lee (ETRI, Korea); Ho-gil Cho (ETRI, Korea)
pp. 443-444

Visible Light Communication Systems for Passenger In-Flight Data Networking

Rafael Perez-Jimenez (Universidad de Las Palmas de Gran Canaria, Spain); Julio Rufo (Cetic-ULPGC, Spain); Crisanto Quintana (CeTIC-ULPGC, Spain); Jose Rabadan (CeTIC-DSC, Universidad de Las Palmas, Spain); Francisco J Lopez-Hernandez (Universidad Politecnica de Madrid, Spain)
pp. 445-446

Improved WiMedia System Supporting MIMO for Wireless HD STB and Mobile Device

Kyu-Man Lee (Samsung Electronics, CO., LTD, Korea); Dong Seog Han (Kyungpook National University, Korea)
pp. 447-448

Time-Domain Signal Combining with Cyclic Delay and Phase Shift for PAPR Reduction in OFDM Systems

Jin Soo Wang (Kyung Hee University, Korea); Sung Hyun Hwang (Electronics and Telecommunications Research Institute, Korea); Chang Joo Kim (Electronics and Telecommunications Research Institute, Korea); Yun Hee Kim (Kyung Hee University, Korea)
pp. 449-450

Implementation of PHY Module for Personal and Portable Cognitive Radio Devices

Jung-Sun Um (ETRI, Korea); Sunghyun Hwang (ETRI, Korea); Byung Jang Jeong (ETRI, Korea); Chang-Joo Kim (Electronics and Telecommunications Research Institute, Korea)
pp. 451-452

Effect of TxID Signal on the Performance of the Legacy ATSC Terrestrial DTV Receivers

Sung Ik Park (Electronics and Telecommunications Research Institute (ETRI), Korea); Jeongchang Kim (Korea Maritime University, Korea); Heung Mook Kim (ETRI, Korea)
pp. 453-454

Effective Encoding of TV-Anytime Metadata Using EXI

Young-Guk Ha (Konkuk University, Korea)

pp. 455-456

MMSE Equalization with Interference Cancellation for SC-FDE Over Single Frequency Network Channel

Euy Ryong Choi (Yonsei university, Korea); Jin-Yong Choi (Yonsei University, Korea); Jungyup Jang (Yonsei University, Korea); JongSoo Seo (Yonsei University, Korea)

pp. 457-458

User's Experienced Quality Based Handover Method for Dual-Mode Mobile Terminal with 3G and WLAN

Hyun Jong Kim (Chungbuk National University (CBNU), Korea); Seong Gon Choi (Chungbuk National University, Korea)

pp. 459-460

LR-WPAN Based Weighing Scales and Smartphones

Choong Bum Park (ChungNam National University, Korea); Byung Sung Park (ChungName National University, Korea); Kyung Min Park (Chung-nam National University, Korea); Huy Jung Uhm (Chungnam National University, Korea); Hoon Choi (Chungnam National University, Korea)

pp. 461-462

Adaptive Frame Aggregation Scheme for Energy Efficiency in WLAN

Seungwoo Jeon (Samsung Advanced Institute of Technology, Korea); Jihoon Lee (Samsung Electronics, Korea)

pp. 463-464

Attribute-Based Routing for Home Automation Networks

Soyoung Hwang (Catholic University of Pusan, Korea); Donghui Yu (Catholic University of Pusan, Korea)

pp. 465-466

P03: Electronic Program Guides (EPG) and Recommender Systems (Poster Session)

.....

Personalized Electronic Program Guide for IPTV Based on Collaborative Filtering with Novel Similarity Method

Hyeong-Joon Kwon (Sungkyunkwan University, Korea); Kwang-Seok Hong (Sungkyunkwan University, Korea)

pp. 467-468

Personalized IPTV Content Recommendation for Social Network Group

SooCheol Kim (Chung-Ang University, Korea); Sung-Kwon Kim (Chung-Ang University, Korea)

pp. 469-470

Effective Web Content Recommendation Based on Consumer Behavior Modeling

Baoyao Zhou (IBM Research, P.R. China); Acm Fong (Nanyang Tech Univ, Singapore); Siu Hui (Nanyang Tech University, Singapore); The Do (Auckland University of Technology, New Zealand)

pp. 471-472

Generic Protocol for Accessing Content Discovery Metadata in Advanced IPTV Systems

Truong Cong Thang (ETRI, Korea); Jungwon Kang (ETRI, Korea); Seong-Jun Bae (ETRI, Korea); Yeongju Yoo (Electronics and Telecommunications Research Institute, Korea); Sang Taick Park (ETRI, Korea)

pp. 473-474

11:05 - 12:25

T01-S4: Camera Image Processing

A New Auto-Focus Sharpness Function for Digital and Smart-Phone Cameras

Siamak Yousefi (University of Texas at Dallas, USA); Mohammad Rahman (University of Texas at Dallas, USA); Nasser Kehtamavaz (University of Texas at Dallas, USA); Mark Gamadia (University of Texas at Dallas, USA)
pp. 475-476

Purple Fringing Correction Using Colorization in Yxy Color Space

Dong-Kyu Lee (Sogang University, Korea); Baek-Kyu Kim (Sogang University, Korea); Rae-Hong Park (Sogang University, Korea)
pp. 477-478

Moving Object Detection for Real-Time High-Quality Lightweight Applications on Smart Cameras

Carlos Cuevas (Universidad Politécnica de Madrid, Spain); Narciso García (Universidad Politécnica de Madrid, Spain)
pp. 479-480

Motion Deblurring From a Single Image Using Multi-Layer Statistics Priors

Chunhe Song (Northeastern University, P.R. China); Hai Zhao (Northeastern University, P.R. China); Wei Jing (Northeastern University, P.R. China)
pp. 481-482

T11-S05: Developments in Consumer Digital Storage

New Storage Hierarchy for Consumer Computers

Thomas Coughlin (Coughlin Associates, USA)
pp. 483-484

Digital Video Recording Onto Solid-State Disks

Samuel Russ (University of South Alabama, USA); Ramesh Nallur (Vision 3 Solutions, USA)
pp. 485-486

A Strategy for Longevity Through Media Migration in Consumer Electronics

Scott L Linfoot (De Montfort University, United Kingdom); Thomas Coughlin (Coughlin Associates, USA)
pp. 487-488

Secure PVR- a Novel Recording Scheme for Content Protection

Junggab Son (Hanyang university, Korea); Hoonjung Lee (Hanyang University, Korea); Heekuck Oh (Hanyang University, Korea)
pp. 489-490

T16-S03: HCI Enabling Tech for CE I

A New Stylus for Touchscreen Devices

Sumin Park (University of Science and Technology, Korea); Kwangyong Lee (ETRI, Korea); Ki-Uk Kyung (Electronics and Telecommunications Research Institute, Korea)
pp. 491-492

Using Musical Instruments as Human Control Interface for Electronic Games

Gang Ren (University of Rochester, USA); Gregory Bocko (University of Rochester, USA); Justin Lundberg (University of Rochester, USA); Dave Headlam (University of Rochester, USA); Mark Bocko (University of Rochester, USA)
pp. 493-494

3D Model Manipulation Technique for Large Displays Using Mobile Devices

Dongwook Yoon (Korea Institute of Science and Technology, Korea); Joong Ho Lee (Korea Institute of Science and Technology, Korea); Kiwon Yeom (Korea Institute of Science and Technology, Korea); Jihyung Park (Korea Institute of Science and Technology, Korea)
pp. 495-496

A Real-Time Personal Multi-Platform Commercial Monitoring System

Younhee Kim (Electronics and Telecommunications Research Institute, Korea); Jeho Nam (ETRI, Korea); Jooyoung Lee (Electronics and Telecommunications Research Institute, Korea)
pp. 497-498

Content Discovery: A System Enabling Intuitive Navigation

Thierry Dagaëff (Nagrvision SA, Switzerland)
pp. 499-500

Invitation Model for a Collaborative Service Enhancement in Intelligent Infrastructures

Francisco Quiñoy-García (Universidad de Vigo, Spain); Enrique Costa-Montenegro (University of Vigo, Spain); Francisco González-Castaño (Universidad de Vigo, Spain); Felipe Gil-Castiñeira (Universidad de Vigo, Spain); Pedro Rodríguez-Hernández (Universidad de Vigo, Spain)
pp. 501-502

Precision: A Guided-Based System for Semantic Validation and Personalized Natural Language Generation of Queries

Sara Paiva (Viana do Castelo Polytechnic Institute, Portugal); Manuel Ramos-Cabrer (University of Vigo, Spain); Alberto Gil-Solla (University of Vigo, Spain); Ana Fernandez-Vilas (University of Vigo, Spain); Rebeca Diaz-Redondo (University of Vigo, Spain)
pp. 503-504

T15-S08: Smart Grid Regular Session

Home Energy Manager: A Consumer-Oriented Interactive Tool to Optimize Energy Use

Tanguy Hubert (Georgia Institute of Technology, USA); Santiago Grijalva (Georgia Institute of Technology, USA)
pp. 505-506

ZigBee Electric Vehicle Charging System

Ka Lun Lam (City University of Hong Kong, Hong Kong); King-Tim Ko (City University of Hong Kong, P.R. China); Hoi Yan Tung (City University of Hong Kong, Hong Kong); Hoi Ching Tung (City University of Hong Kong, Hong Kong); Kim Fung Tsang (City University of Hong Kong, Hong Kong); Loi Lei Lai (City University. London, United Kingdom)
pp. 507-508

Hybrid Energy Management Solution for Smart Building

Hoi Ching Tung (City University of Hong Kong, Hong Kong); Kim Fung Tsang (City University of Hong Kong, Hong Kong); Loi Lei Lai (City University. London, United Kingdom); Ka Lun Lam (City University of Hong Kong, Hong Kong); Hoi Yan Tung (City University of Hong Kong, Hong Kong)
pp. 509-510

Power and Safety Management of Electrical Appliances in a Smart Power Distribution System

Tsukasa Noma (Kyushu Institute of Technology, Japan); Yasuhiko Ookuma (Kyushu Electric Power Co., Inc., Japan)
pp. 511-512

How Will a Smart Grid Manage Consumer Energy Appliances?

Edward Colby (Sentec Limited, United Kingdom); Mark England (Sentec Limited, United Kingdom)
pp. 513-514

12:30 - 14:10

Keynote: Paul de Martini, Cisco CTO for Smart-Grid and 2011 IEEE Masaru Ibuka Awards Luncheon, Masaru Ibuka Award Winner, Joan Mitchell
My Journey to this 2011 Ibuka Award

14:20 - 16:00

T11-S04: Automotive Electronics

Connecting In-Vehicle Entertainment with CE Devices Via Multi-Platform Web Applications

Jan Sonnenberg (Technische Universität Braunschweig, Germany)
pp. 515-516

Design and Implementation of Automotive 77GHz FMCW Radar System Based on DSP and FPGA

Eugin Hyun (DGIST, Korea); WooJin Oh (Kumoh Institute of Technology, Korea); Jong hun Lee (DGIST (Daegu GyongBuk Institue of Science and Technology), Korea)
pp. 517-518

A Low Power Wake Up Detector for ECU Nodes in an Automobile FlexRay System

Chua-Chin Wang (National Sun Yat-Sen University, Taiwan); Chih-Lin Chen (National Sun Yat-Sen University, Taiwan); Jie-Jyun Li (National Sun Yat-Sen University, Taiwan); Gang-Neng Sung (National Sun Yat-Sen University, Taiwan)
pp. 519-520

OSEK/VDX-Based Gateway for Car Black Box

Eunryung Lee (ETRI, Korea); Jung Wook Lee (ETRI, Korea); Jeongho Son (Electronics and Telecommunications Research Institute, Korea)
pp. 521-522

Tut3: Tutorial 03 - Mobile Displays Technologies and Applications

T01-S1: Motion Estimation

Complementary Block-Based Motion Estimation for Frame Rate Up-Conversion

Gunjae Koo (LG Electronics, Korea); Kyoungwon Lim (Digital TV lab., Korea); Seung-Jong Choi (LG Electronics Inc., Korea)
pp. 523-524

New Algorithm for Motion Vector Extrapolation for Concealing Entire Frame Loss in the H.264 Video Receiver

Hong Liu (Communications Research Centre Canada, Canada); Wei Li (Canada Communication Research Centre, Canada); Omneya Issa (Communications Research Centre Canada, Canada)
pp. 525-526

Design and Implementation of a Fast Multi-Frame Hierarchical Motion Estimation Circuit

Huong Ho (Communications Research Centre Canada, Canada)
pp. 527-528

Video Completion Using Robust Motion Estimation and Color Compensation

Jin-Hong Kim (Sogang University, Korea); Rae-Hong Park (Sogang University, Korea); Jino Lee (Sogang University, Korea)
pp. 529-530

T12-S1: Display Technologies

Integrating Segmented Electronic Paper Displays Into Consumer Electronic Devices

Jonathan Zalesky (E Ink Corporation, USA); Amory Wakefield (E Ink Corporation, USA)
pp. 531-532

Dynamic Backlight Dimming Using Multiple Histograms for Low Power Liquid Crystal Displays

SukJu Kang (Pohang University of Science and Technology, Korea); Young Hwan Kim (Pohang University of Science and Technology, Korea)

pp. 533-534

Content-Based LCD Backlight Power Reduction with Image Contrast Enhancement Using Histogram Analysis

Yeong-Kang Lai (National Chung Hsing University, Taiwan); Yu-Fan Lai (National Chung Hsing University, Taiwan)

pp. 535-536

Design of Real-Time Image Processing Engine for Electrophoretic Displays

Wen-Chung Kao (National Taiwan Normal University, Taiwan); Guan-Fan Wu (National Taiwan Normal University, Taiwan); Yi-Liang Shih (National Taiwan Normal University, Taiwan)

pp. 537-538

Quality Enhancement for Scalable View Window in Touchable Display Systems

Yeong-Kang Lai (National Chung Hsing University, Taiwan); Yu-Fan Lai (National Chung Hsing University, Taiwan)

pp. 539-540

T15-S09: Smart Grid Invited Session I

IMS Signaling for Smart Grid Home Controllers

Anton Roman-Portabales (Quobis Networks SLU, Spain); Elias Perez-Carrera (Quobis Networks SLU, Spain); Francisco J. González-Castaño (Universidad de Vigo, Spain); David Chaves-Diéguez (Gradiant, Spain)

pp. 541-542

Next Generation of Energy Residential Gateways for Demand Response and Dynamic Pricing

Antonio Cuevas (Universidad Politécnica de Madrid, Spain); Carmen Lastres (Universidad Politécnica de Madrid, Spain); Jaime Caffarel (Universidad Politécnica de Madrid, Spain); Rocío Martínez (Universidad Politécnica de Madrid, Spain); Asunción Santamaría (Universidad Politécnica de Madrid, Spain)

pp. 543-544

Middleware-Based Management for Smart Grids

David Villa (University of Castilla-La Mancha, Spain); Cleto Martín (University of Castilla-La Mancha, Spain); Félix J. Villanueva (University of Castilla-La Mancha, Spain); Francisco Moya (University of Castilla-La Mancha, Spain); Juan Carlos López (University of Castilla-La Mancha, Spain)

pp. 545-546

P05: Home Healthcare III (Poster Session)

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ISO/IEEE 11073 PHD Standardization of Legacy Healthcare Devices for Home Healthcare Services

Chan-Yong Park (ETRI (Electronics Telecommunications Research Institute), Korea); Joon-Ho Lim (Electronics and Telecommunications Research Institute, Korea); Soojun Park (ETRI, Korea)

pp. 547-548

Real-Time Monitoring of Complex Window Conditions on Body Sensor Data for Wireless Body Area Networks

Minsoo Lee (Ewha Womans University, Korea); Okju Choi (Ewha Womans University, Korea);
Seul-A Lee (Ewha Womans University, Korea); Nory Chou (Ewha Womans University, Korea)
pp. 549-550

Optimized, Practical Firmware Design for a Novel Flexible Wireless Multi-Sensor Platform for Body Activity and Vitals Monitoring

Camille Jaggernauth (Simon Fraser University, Canada); Yindar Chuo (Simon Fraser University, Canada); Benny Hung (Simon Fraser University, Canada); Philip Lin (Simon Fraser University, Canada); Bozena Kaminska (Simon Fraser University, Canada)
pp. 551-552

Design of an Embedded Monitor System with a Low-Power Laser Projection for the Detection of a Patient's Breath

Y. W. Bai (Fu Jen Catholic University, Taiwan); You-Wei Chen (Fu Jen Catholic University, Taiwan); Wen-Tai Li (Fu Jen Catholic University, Taiwan)
pp. 553-554

Narrowband Active Noise Control Earmuffs System for Hearing Protection

Hyeon-Jin Jeon (Chung-Ang University, Korea); Woo-Geun Lee (Chung-Ang University, Korea); Jun-Gil Jeon (Chung-Ang University, Korea); Tae-Gyu Chang (Chung-Ang University, Korea)
pp. 555-556

VLSI Implementation of a Mixed Bio-signal Lossless

Ericson Chua (National Chiao Tung University, Philippines); Chih-Chung Fu (National Chiao Tung University, Taiwan); Wai-Chi Fang (National Chiao Tung University, Taiwan)
pp. 557-558

An EKG System-on-Chip for Portable Time-Frequency HRV Analysis

Shaoyen Tseng (National Chiao Tung University, Taiwan); Wai-Chi Fang (National Chiao Tung University, Taiwan)
pp. 559-560

Arterial Stiffness Estimation Based on the Digital Volume Pulse for Utilization in Home Health Management Environments

Dae-Geun Jang (Korea Advanced Institute of Science and Technology, Korea); Umar Farooq (Kyung Hee University, Pakistan); Jang-Ho Park (Kyung Hee University, Korea); Seung-Hun Park (Kyung Hee University, Korea); Minsoo Hahn (Korea Advanced Institute of Science and Technology, Korea)
pp. 561-562

P07: Automotive CE (Poster Session)

Design and Implementation of a Full-Digital Pulse-Doppler Radar System for Automotive Applications

Sang-Dong Kim (Daegu Geongbuk Institute of Science and Technology, Korea); Yeonghwan Ju (Daegu Geongbuk Institute of Science and Technology, Korea); Jong hun Lee (DGIST (Daegu GyongBuk Institue of Science and Technology), Korea)
pp. 563-564

Detection of Road Surface Conditions by Using an Omni-Directional Camera and Polarization Properties

Kazuya Nakagawa (University of Toyama, Japan); Keiji Shibata (University of Toyama, Japan); Yuukou Horita (University of Toyama, Japan)
pp. 565-566

Vehicle Control System for Automatic Valet Parking with Infrastructure Sensors

Kyungbok Sung (ETRI, Korea); Jeong-Dan Choi (Electronics and Telecommunications Research Institute, Korea); Dong-Yong Kwak (ETRI, Korea)
pp. 567-568

A Customizable Visualization Framework for VANET Application Design and Development

Claudia Barberis (Politecnico di Torino, Italy); Enrico Gueli (Politecnico di Torino, Italy); Tuan Le (Politecnico di Torino, Italy); Giovanni Malnati (Politecnico di Torino, Italy); Alessandro Nassisi (Politecnico di Torino, Italy)

pp. 569-570

Road Nail: Intelligent Road Marking System

Dragan Samardzija (University of Novi Sad, Serbia); Erme Kovac (University of Novi Sad, Serbia); Djordje Isailovic (University of Novi Sad, Serbia); Mihajlo Katona (University of Novi Sad, Serbia); Nikola Teslic (University of Novi Sad, Serbia); Bojan Miladinovic (University of Novi Sad, Serbia)

pp. 571-572

Runtime Debugging and Monitoring Tool for Automotive Software Development

Jang Woon Baek (ETRI, Korea); Jung Wook Lee (ETRI, Korea); JaeYoung Kim (ETRI, Korea)

pp. 573-574

P09: Networking (Poster Session)

Resource Access Aggregation for Mobile CE Device

Hiromi Narimatsu (The University of Electro-Communications, Japan); Hiroyuki Kasai (The University of Electro Communication, Japan)

pp. 575-576

SOD: Framework for on-Demand Computing in Home Environment

Kiryong Ha (ETRI, Korea); Dong-oh Kang (ETRI, Korea); Hyung Jik Lee (ETRI, Korea); Kyuchang Kang (ETRI, Korea); Jeunwoo Lee (ETRI, Korea)

pp. 577-578

Conflict Resolving System Among Integrated Services in Home Network System

Kazuya Arakawa (Shibaura Institute of Technology, Japan); Masahiro Inoue (Shibaura Institute of Technology, Japan)

pp. 579-580

Sensor Network Over CATV Infrastructure

Hyun Chul Cha (Kyungpook National University, Korea); Young Cheol Kim (Kyungpook National University, Korea); Ick Chang Choi (Kungpook National University, Korea); Byoung-Ju Yun (Kyungpook National University, Korea); Kim Hyun Deok (Kyungpook National University, Korea)

pp. 581-582

IPv6-Based Hierarchical Middleware for Efficient Home Control Through a Global Network

Tae Hoon Do (Chung-Ang University, Korea); Sang Oh Park (Chung-Ang University, Korea); Sung-Jo Kim (Chung-Ang University, Korea)

pp. 583-584

An Object-Based Middleware for Home Network Supporting the Interoperability Among Heterogeneous Devices

Jin Sung Kim (Chung-Ang University, Korea); Sung-Jo Kim (Chung-Ang University, Korea)

pp. 585-586

A Multi-User Beamforming Scheme in MIMO Downlink Channels for Multi-Cell Networks

Jai-Hoon Lee (Korea Advanced Institute of Science and Technology (KAIST), Korea); Seokkwon Kim (Korea Advanced Institute of Science and Technology, Korea); Seung-Ri Jin (Korea Advanced Institute of Science and Technology, Korea); Dong-Jo Park (Korea Advanced Institute of Science and Technology, Korea)

pp. 587-588

Unsynchronized Duty Cycle Control for Home Automation Networks

Dongho Lee (University of Kwangwoon, Korea); Kwangsue Chung (Kwangwoon University, Korea)

pp. 589-590

Asynchronous Virtual Slot-Based Ranging for Device-Centric Localization Systems

Kwang-il Hwang (University of Incheon, Korea)

pp. 591-592

A Terrestrial Digital Multimedia Broadcasting Testbed for Wireless Billboard Channels
Zhanlin Ji (Hebei United University, P.R. China); Ivan Ganchev (University of Limerick, Ireland);
Mairtin O'Droma (University of Limerick, Ireland)
pp. 593-594

Proxy-Based Mobility Management Scheme in Mobile Content Centric Networking (CCN) Environments

Jihoon Lee (Samsung Electronics, Korea); Daeyoub Kim (Samsung Electronics, Korea); Myeong-Wuk Jang (Samsung Electronics, Korea); Byoung-Joon BJ Lee (Samsung Advanced Institute of Technology, Korea)
pp. 595-596

Fast and Adaptive Browsing State Recovery for Multimedia Mobile Devices

Seokjin Hong (Samsung Electronics, Korea); Ki Yong Lee (Sookmyung Women's University, Korea); Heegyu Jin (Samsung Electronics. Co, Ltd, Korea); Ki Yong Lee (Samsung Electronics, Korea); Kyoung-Gu Woo (Samsung Electronics, Korea)
pp. 597-598

A Cable Modem Receiver Supporting 4 Upstream Channels

Jae Ho Lee (ETRI, Korea); Dong-Joon Choi (ETRI, Korea); Soo-In Lee (Electronics and Telecommunications Research Institute, Korea); Whan Woo Kim (Chungnam National University, Korea)
pp. 599-600

16:30 - 18:30

T15-S09: Smart Grid Invited Session II

Narrowband PLC Solutions for AMI Achieve Long Distance - Part 1

Donald Shaver (Texas Instruments Incorporated, USA)
pp. 601-602

Narrowband PLC Solutions for AMI Achieve Long Distance Communications and Flexibility with Immediate Market Impact

Donald P Shaver (Texas Instruments, USA)
pp. 603-604

T11-S09: Home Healthcare I

The Physical Layer Design of Intra-Body Communication: Model, Transmitter and Receiver

Sio Hang Pun (University of Macau, Macao); Yue-ming Gao (Fu zhou University, P.R. China); Peng Un Mak (University of Macau, Macao); Mang I Vai (University of Macau, P.R. China); Min Du (Fu zhou University, P.R. China)
pp. 605-606

A Hardware-Efficient VLSI Implementation of a 4-Channel ICA Processor for Biomedical Signal Measurement

Chiu-kuo Chen (National Chiao Tung University, Taiwan); Ericson Chua (National Chiao Tung University, Philippines); Chih-Chung Fu (National Chiao Tung University, Taiwan); Shaoyen Tseng (National Chiao Tung University, Taiwan); Wai-Chi Fang (National Chiao Tung University, Taiwan)
pp. 607-608

ECG Heart Beat Detection Via Mathematical Morphology and Quadratic Spline Wavelet Transform

Chio In leong (University of Macau, Macao); Mang I Vai (University of Macau, P.R. China); Peng Un Mak (University of Macau, Macao); Pui-In Mak (University of Macau, Macao)
pp. 609-610

Elcano: Multimodal Indoor Navigation Infrastructure for Disabled People

Félix J. Villanueva (University of Castilla-La Mancha, Spain); Miguel Ángel Martínez (University of Castilla-La Mancha, Spain); David Villa (University of Castilla-La Mancha, Spain); Carlos Gonzalez (University of Castilla-La Mancha, Spain); Juan Carlos López (University of Castilla-La Mancha, Spain)

pp. 611-612

A Zero Configured HomeCare Gateway Using ZigBee

Hoi Yan Tung (City University of Hong Kong, Hong Kong); Kim Fung Tsang (City University of Hong Kong, Hong Kong); Ka Lun Lam (City University of Hong Kong, Hong Kong); Hoi Ching Tung (City University of Hong Kong, Hong Kong)

pp. 613-614

Low Power RC5 Cipher for ZigBee Portable Biomedical Systems

Yain-Reu Lin (National Sun Yat-Sen University, Taiwan); Chia-Hao Hsu (National Sun Yat-Sen University, Taiwan); Robert Rieger (National Sun Yat-sen University, Taiwan); Chua-Chin Wang (National Sun Yat-Sen University, Taiwan)

pp. 615-616

T16-S04: HCI Enabling Tech for CE II

XMPP Message-Based MVC Architecture for Event-Driven Real-Time Interactive Applications

Adrian J Hornsby (Nokia Research Center, Finland)

pp. 617-618

A TV Pointing Device Using LED Directivity

Geehyuk Lee (Korea Advanced Institute of Science and Technology, Korea); Seunghwan Lee (Korea Advanced Institute of Science and Technology, Korea); Won-Chul Bang (Samsung Advanced Institute of Technology, Korea); Yeunbae Kim (Samsung Electronics, Korea)

pp. 619-620

Orientation Estimation for Pan-Tilt Motion Interfaces

Bhoram Lee (Samsung Advanced Institute of Technology, Korea); Won-Chul Bang (Samsung Advanced Institute of Technology, Korea); James D. K. Kim (Samsung Advanced Institute of Technology, Korea)

pp. 621-622

Human-of-Interest Tracking System for Natural Interaction

Taeyoung Uhm (Hanyang University, Korea); Hanhoon Park (NHK Science & Technology Research Laboratories, Japan); Jong-Il Park (Hanyang University, Korea)

pp. 623-624

Interaction with Large Next-Generation Whiteboards: Using Gestures

Vasenev (Uni, Russia); Johannes Zylka (University of Education Weingarten, Germany); Wolfgang Müller (University of Education Weingarten, Germany)

pp. 625-626

Acoustic and Visual Signal Based Context Awareness System for Mobile Application

WooHyun Choi (Korea University, Korea); SeungIl Kim (Korea University, Korea); MinSeok Keum (Korea University, Korea); WangHan (Korea University, Korea); Hanseok KO (Korea University, Korea); K. Han David (Office of Naval Research, USA)

pp. 627-628

T09-S3: Networks: Services

SOA Distributed Operating System for Managing Embedded Devices in Home and Building Automation

Ayman Sleman (Wuppertal University, Germany); Reinhard Moeller (University of Wuppertal, Germany)

pp. 629-630

More Efficient Home Energy Management System Based on ZigBee Communication and Infrared Remote Controls

Jinsoo Han (ETRI, Korea); Chang-Sic Choi (ETRI, Korea); Il-Woo Lee (ETRI, Korea)
pp. 631-632

Voice Over ZigBee Networks with Environmental Monitoring

Jong-uk Lee (Electronics and Telecommunications Research Institute, Korea)
pp. 633-634

Personalized Intelligent Gadget Management Using Web

Eunjeong Choi (Electronics and Telecommunications Research Institute, Korea); Chang Seok Bae (ETRI, Korea); Jeunwoo Lee (ETRI, Korea)
pp. 635-636

Performance and Fairness in VANETs

Tseesuren Batsuuri (Eindhoven University of Technology, The Netherlands); Reinder J. Bril (Eindhoven University of Technology, The Netherlands); Johan J. Lukkien (Eindhoven University of Technology, The Netherlands)
pp. 637-638

T02-S4: Video Coding Algorithms

Visually Lossless Compression for Color Images with Low Line Memory Requirement Using Non-Uniform Quantizers

Dung Vo (Samsung Information Systems America (Samsung Electronics US R&D Center), USA); Surapong Lertrattanapanich (Digital Media Solutions Lab, Samsung Electronics US R&D Center, USA); Yeong-Taeg Kim (Samsung SISA, USA)
pp. 639-640

Low-Complexity Wavelet-Based Image/Video Coding for Home-Use and Remote Surveillance

Marijn Loomans (Eindhoven University of Technology, The Netherlands); Cornelis Koeleman (VDG Security, The Netherlands); Kenny Joosen (Eindhoven University of Technology, The Netherlands); Peter H.N. de With (Eindhoven University of Technology, The Netherlands)
pp. 641-642

Exploiting the Full Potential of Two-Bit Transform Based Motion Estimation

Sarp Ertürk (Kocaeli University, Turkey)
pp. 643-644

08:00 - 09:40

T01-S3: 3D Image Processing

Improved Depth Map Filtering for 3D-TV Systems

Demuni De Silva (University of Surrey, United Kingdom); Anil Fernando (Center for Communications Research. University of Surrey, United Kingdom); Hemantha Kodikara Arachchi (University of Surrey, United Kingdom); Stewart Thomas Worrall (University of Surrey, United Kingdom); Ahmet Kondo (University of Surrey, United Kingdom)
pp. 645-646

Content-Aware 3D Image Retargeting for Mobile Devices

Kang-Sun Choi (Korea University, Korea); Hyeong-Min Nam (Korea University, Korea); Keun-Yung Byun (Korea University, Korea); Sung Jea Ko (Korea University, Korea)

pp. 647-648

A Random Forests-Based Approach for Estimating Depth of Human Body Gestures Using a Single Video Camera

Mahsa T. Pourazad (University of Toronto, Canada); Ali Bashashati (Centre for Translational and Applied Genomics, British Columbia Cancer Agency, Canada); Panos Nasiopoulos (University of British Columbia, Canada)

pp. 649-650

Geometric and Texture Cue Based Depth-Map Estimation for 2D to 3D Image Conversion

Kyuseo Han (Purdue University, USA); Kihyun Hong (Purdue University, USA)

pp. 651-652

T07-S1: Display Technologies & Devices**Compensation of Pixel Driving Deflection for Mobile Scanning Projection Display**

Eung-Ju Kim (Korea University, Seoul, Korea); Sang-Hyeok Yang (Korea University, Seoul, Korea); Shin_il Lim (Seokyeong University, Seoul, Korea); Suki Kim (Korea University, Seoul, Korea)

pp. 653-654

A Backlight Simulator for an Edge-Type Backlight Unit in Local Dimming Systems

Yun-Ki Han (Pohang University of Science and Technology, Korea); Woo-Jin Song (Pohang University of Science and Technology, Korea); ByoungChul Cho (LG Display, Korea); HeeJung Hong (LG Display, Korea); EuiYeol Oh (LG Display, Korea)

pp. 655-656

Quantitative Analysis of Image Based LCD Motion De-Blurring Methods

Carsten Dolar (Leibniz Universität Hannover, Germany); Hartmut Schröder (Technische Universität Dortmund, Germany)

pp. 657-658

A Novel Automatic White Balance for Image Stitching on Mobile Devices

Seung Kyun Kim (Korea University, Korea); Seung Won Jung (Korea University, Korea); Kang-A Choi (Korea University, Korea); Tae Moon Roh (ETRI, Korea); Sung Jea Ko (Korea University, Korea)

pp. 659-660

Low-Power FPGA-Based Display Processing Module for Head-Mounted Displays

Dipanjana Sengupta (University of British Columbia, Canada); Reynald Hoskinson (Recon Instruments, Canada); Shahriar Mirabbasi (University of British Columbia, Canada); Milen Ivanov (Recon Instruments, Canada); Hamid Abdollahi (Recon Instruments, Canada)

pp. 661-662

T09-S1: Networks: Technology**High Speed Data to the Home - an Update**

James O Farmer (Enablence Systems, USA)

pp. 663-664

Multi-Band Wi-Fi Systems: A New Direction in Personal and Community Connectivity

Lochan Verma (Samsung Electronics, Korea); Scott Seongwook Lee (DM R&D Center of Samsung Electronics, Korea)

pp. 665-666

LRU-Based ZigBee Channel Allocation for Interference Avoidance in Smart Grid Networks

Taesik Nam (Samsung Electronics, Korea); Hyunseung Choo (Sungkyunkwan University, Korea);

*Hoon Kim (SAMSUNG Electronics Co. Ltd., Korea)
pp. 667-668*

Behavior of HomePlug AV Traffic At High Sustained Bit Rates in the Home

*Samuel Russ (University of South Alabama, USA); Salim Alsharif (University of South Alabama, USA)
pp. 669-670*

CSI Feedback Scheme for Beamforming At AF Relays

*Seokkwon Kim (Korea Advanced Institute of Science and Technology, Korea); Jai-Hoon Lee (Korea Advanced Institute of Science and Technology (KAIST), Korea); Dong-Jo Park (Korea Advanced Institute of Science and Technology, Korea)
pp. 671-672*

T11-S07: Green CE Technologies II

Low-Power Networking in Home and Building Automation Systems

*Massimo Aliberti (Consiglio Nazionale delle Ricerche, Italy)
pp. 673-674*

Building Fully Functional Instant on/Off Systems by Making Use of Non-Volatile RAM

*Hyojeon Kim (Hongik University, Korea); Eunsam Kim (Hongik University, Korea); Jongmoo Choi (Dankook University, Korea); Donghee Lee (University of Seoul, Korea); Sam H. Noh (Hongik University, Korea)
pp. 675-676*

A Smart a/D Converter with Tunable Resolution and Dynamicrange for Electric Power Meter

*Yoshimi Iso (Renesas Solutions Corp., Japan); Masakazu Okamura (Renesas Solutions Corp., Japan); Kakeru Kimura (Renesas Solutions Corp., Japan); Kenji Anami (Waseda University, Japan); Takaaki Baba (Waseda University, Japan)
pp. 677-678*

A Queuing Model with Random Interruptions for Electric Vehicle Charging Systems

*Seung Baek (Korea University, Korea); Seong-Jun Oh (Korea University, Korea); Daehee Kim (Korea University, Korea); Jong-arm Jun (ETRI, Korea)
pp. 679-680*

System Architecture for Road Lighting

*Çağdaş Atıcı (Eindhoven University of Technology, The Netherlands); Tanir Özçelebi (Eindhoven University of Technology, The Netherlands); Johan J. Lukkien (Eindhoven University of Technology, The Netherlands)
pp. 681-682*

T15-S02: Invited Session on 3D TV Broadcasting: Displays, Coding and Receivers

Evolution of Modern Display Technologies in a 3D Ecosystem

*Rainer Zwing (C.R.S. iiMotion GmbH, Germany); Sébastien Weitbruch (C. R. S. Iimotion GmbH, Germany); Gerold Lübcke (C.R.S. iiMotion GmbH, Germany)
pp. 683-684*

Multi-view Coding and View Synthesis for 3DTV

*F. Bruls (Philips Research, The Netherlands)
pp. 685-686*

On the Technology Roadmap of Free-Viewpoint 3DTV Receivers

*Egor Bondarev (Eindhoven University of Technology, The Netherlands); Peter H.N. de With (Eindhoven University of Technology, The Netherlands); Sveta Zinger (Eindhoven University of Technology, The Netherlands); Michel Imbert (ST Microelectronics, France); Regis Miquel (ST Microelectronics, France)
pp. 687-688*

09:45 - 10:30

Keynote: Indra Laksono CTO, co-founded ViXS Systems Inc.

Watching TV anywhere on anything at anytime: Common Roadmap towards a Connected Architecture for enabling video on Smart Devices

P08: Image/Video Codecs & Encoding (Poster Session)

.....

A Fast Mode Determination Algorithm for Multi-View Video Coding

Pei-Jun Lee (National Chi Nan University, Taiwan); Shun-Hsing Huang (National Chi Nan University, Taiwan); Wen-June Wang (National Central University, Taiwan)
pp. 689-690

An Intelligent High Dynamic Range Video Codec for Handheld Devices

Andrew Léonce (Loughborough University, United Kingdom); Dhammike Wickramanayake (Loughborough University, United Kingdom); Edirisinghe Eran (Loughborough University, United Kingdom)
pp. 691-692

Intra Prediction Mode Based Improved Deblocking Filter

Jungyoup Yang (Sungkyunkwan University, Korea); Kwanghyun Won (Sungkyunkwan University, Korea); Byeungwoo Jeon (Sung Kyun Kwan University, Korea)
pp. 693-694

Flexible Interleaved Motion Vector Coding

Kwanghyun Won (Sungkyunkwan University, Korea); Jungyoup Yang (Sungkyunkwan University, Korea); Byeungwoo Jeon (Sung Kyun Kwan University, Korea)
pp. 695-696

Adaptive Search Range Motion Estimation Using Neighboring MVDs

Yun-Ho Ko (Chungnam National University, Korea); Hyun-Soo Kang (Chungbuk National University, Korea); Si-Woong Lee (Hanbat National University, Korea)
pp. 697-698

Adaptive Quantization Scheme Using Dual-Interleaved Scalar Quantizers for Image/Video Coding

Kiwon Yoo (Samsung Electronics, Korea)
pp. 699-700

Face Mesh Compression Based on Half-Spherical Coordinates for Home Entertainment Systems

Taejung Park (Korea University, Korea); Shin Jin Kang (Korea University, Korea); Chang Hun Kim (Korea University, Korea)
pp. 701-702

Multi-Scale Based Motion Estimation for High Quality Video Coding

Byung-Gyu Kim (SunMoon University, Korea); Hyo-Sung Kim (SunMoon University, Korea); Hyun-Ki Jung (SunMoon University, Korea); Chan-Seob Park (SunMoon University, Korea)
pp. 703-704

Design and VLSI Implementation of High-Performance Face-Detection Engine for Mobile Applications

Dongil Han (Sejong University, Korea); Jongho Choi (Sejong University, Korea); Jae Il Cho (Electronics and Telecommunication Research Institute, Korea); Dongsu Kwak (WIPIA, Korea)
pp. 705-706

A Video Coding Analyzer for Next-Generation Compression Standards

Taoran Lu (Dolby Labs., USA); Xiaolan Lu (Thomson, Inc., USA); Qian Xu (Thomson, Inc., USA); Yufei Zheng (Thomson, Inc., USA); Joel Sole (Qualcomm, USA); Peng Yin (Thomson multimedia Inc., USA)

pp. 707-708

A Protection Scheme for Multiple Description H.264/AVC Video Delivery Over Bursty Channels

Ismail Ali (University of Essex, United Kingdom); Sandro Moiron (University of Essex, United Kingdom); Mohammad Ghanbari (University of Essex, United Kingdom); Martin Fleury (University of Essex, United Kingdom)

pp. 709-710

Cost Effective H-V Scaling Direction Interchangeable Frame-Lock Scaling Engine

Chung-Hsun Huang (National Chung Cheng University, Taiwan); Chao-Yang Chang (National Chung Cheng University, Taiwan)

pp. 711-712

Image Resolution Enhancement by Modifying the Frequency Spectrum

Jeong Ho Lee (Hanyang University, Korea); Ki Tae Park (Hanyang University, Korea); Chan woo Park (Hanyang University, Korea); Do Kyung Shin (Hanyang University, Korea); Young Shik Moon (Hanyang University, Korea)

pp. 713-714

P12: Security (Poster Session)

Practical Real-Time Watermarking Techniques Robust Against Video Format Conversion

Kilsang Yoo (Chung Ang University, Korea); Mi-Ae Kim (Chung-Ang University, Korea); Won-Hyung Lee (Chung-Ang University, Korea)

pp. 715-716

An Authentication Scheme for Consumer Electronic Devices Accessing Mobile IPTV Service From Home Networks

Roh Hyosun (Soongsil University, Korea); Souhwan Jung (Soongsil University, Korea); Seohyun Jung (Soongsil University, Korea)

pp. 717-718

A Secure Fingerprint Template Generation Algorithm for Smart Card

Daesung Moon (ETRI, Korea); Seung-Hoon Chae (Chosun University, Korea); Jung-Nyu Kim (ETRI, Korea)

pp. 719-720

New Biometrics-Acquisition Method Using Time-of-Flight Depth Camera

Tae-Chan Kim (Samsung Electronic Co. Ltd., Korea); Kyu-Min Kyung (Samsung Electronics Co., Ltd., Korea); Kwanghyuk Bae (Samsung Electronics Co., Ltd., Korea)

pp. 721-722

A New Wavelet - Based Image Watermarking Technique

Saif Zahir (UNBC, Canada); Md Wahedul Islam (UNBC, Canada)

pp. 723-724

Digital Signature with Localization for Image Authentication

Mi-Ae Kim (Chung-Ang University, Korea); Kilsang Yoo (Chung Ang University, Korea); Won-Hyung Lee (Chung-Ang University, Korea)

pp. 725-726

Design and Implementation of Headend Servers for Downloadable CAS

Youngho Jeong (ETRI, Korea)

pp. 727-728

A Privacy Enhanced Contents Sharing in Mobile Networks

Eunah Kim (Samsung Advanced Institute of Technology, Korea); Daeyoub Kim (Samsung Electronics, Korea); Misuk Huh (Samsung Electronics, Korea); Jin-Hwan Jeong (ETRI, Korea); Byoung-Joon BJ Lee (Samsung Advanced Institute of Technology, Korea)
pp. 729-730

A New Estimation Approach of Resampling Factors Using Threshold-Based Peak Detection

Geun-Sil Song (Chung-Ang University, Korea); Yong In Yun (Chung-Ang University, Korea); Won-Hyung Lee (Chung-Ang University, Korea)
pp. 731-732

An Adaptive Normalcy Decision for Video Surveillance Security System

Miyoung Nam (Inha University, Korea); HakChul Shin (Inha University, Korea); YongZhe Xu (Inha University, P.R. China); PhillKyu Rhee (University of Inha, Korea)
pp. 733-734

Multi Target Tracking Using Multiple Independent Particle Filters for Video Surveillance

YoungJoon Chai (Chung-Ang University, Korea); JinYong Park (Chung-Ang University, Korea); KwangJin Yoon (GSAIM, Chung-Ang University, Korea); Tae-Yong Kim (GSAIM, Chung-Ang Univ, Korea)
pp. 735-736

11:05 - 12:25

T15-S04a: Invited Session - Green CE Technologies III

T01-S6: Camera Processing and Noise Reduction

A Dual Image Processing Pipeline Camera with CE Applications

Istvan Andorko (National University of Ireland, Galway, Ireland); Peter Corcoran (National University of Ireland, Galway, Ireland); Petronel Bigioi (Tessera, Ireland)
pp. 737-738

A Trained Motion Adaptive Temporal Filter Based on Proportional-Integral-Derivative Temporal Classification

Kyoungwon Lim (Digital TV lab., Korea); Sung Deuk Kim (, Korea)
pp. 739-740

Facial Enhancement and Beautification for HD Video Cameras

Corneliu Florea (University "Politehnica" of Bucharest, Romania); Adrian Capătă (Tessera Technologies, Inc., Romania); Mihai Ciuc (University "Politehnica" of Bucharest, Romania); Peter Corcoran (National University of Ireland, Galway, Ireland)
pp. 741-742

A Saliency Based Noise Reduction Method for Digital TV

Zhang Dongni (Korea University, Korea); Jong-Woo Han (Korea University, Korea); Oh-Jung Kwon (Korea University, Korea); Hyeong-Min Nam (Korea University, Korea); Sung Jea Ko (Korea University, Korea)
pp. 743-744

T08-S08: Infrastructure for Mobile & Residential Gateways

Comparison of Multicast/Broadcast Service Architectures in Mobile WiMAX Networks

Se-il Jeon (Soongsil University, Korea); younghan Kim (Soongsil University, Korea); Eunkyung Kim (Electronics and Telecommunications Research Institute (ETRI), Korea); Chulsik Yoon (ETRI, Korea)
pp. 745-746

Real-Time Distribution Support for Residential Gateways Based on OSGi

Pablo Basanta-Val (Universidad Carlos III de Madrid, Spain); Marisol Garcia-Valls (Universidad

*Carlos III de Madrid, Spain); Iria Estevez-Ayres (Universidad Carlos III de Madrid, Spain)
pp. 747-748*

Real Time DVB-H Gateway Based on DSP

*Fernando Pescador (Universidad Politécnica de Madrid, Spain); Pedro Lobo (Universidad Politécnica de Madrid, Spain); Ernesto Seisdedos (Universidad Politécnica de Madrid, Spain); Eduardo Juarez (Universidad Politécnica de Madrid, Spain); Matias J Garrido (Universidad Politécnica de Madrid, Spain)
pp. 749-750*

T12-S2: Immersive TV

Rendering Multiple Views for Autostereoscopic Video Displays

*Zhi-Wei Gao (TECO corporation, Taiwan); Wen-Kuo Lin (TECO corporation, Taiwan); Tzu-Hung Chen (TECO corporation, Taiwan); Houn-Jyh Wang (TECO corporation, Taiwan); Wen-Chung Kao (National Taiwan Normal University, Taiwan)
pp. 751-752*

Immersive TV Viewing with Advanced Ambilight

*Alina Albu (Philips Research Europe, The Netherlands); Stijn de Waele (Philips Research, The Netherlands); Wil Hoogenstraaten (Philips Consumer Lifestyle, Advanced Technology, The Netherlands); Come Kwisthout (Philips Consumer Lifestyle, Advanced Technology, The Netherlands)
pp. 753-754*

Quality of Experience of Stereoscopic Content on Displays of Different Sizes: A Comprehensive Subjective Evaluation

*Lino E Coria (University of British Columbia, Canada); Di Xu (University of British Columbia, Canada); Panos Nasiopoulos (University of British Columbia, Canada)
pp. 755-756*

Floor-Projected 3D System by 3D Ready Ultra Short Throw Distance Projector

*Takaaki Abe (SANYO Electric Co., Ltd., Japan); Ken Mashitani (SANYO Electric Co., Ltd, Japan); Hideyuki Kanayama (SANYO Electric Co., Ltd, Japan)
pp. 757-758*

T11-S12: Home Building Control Apps

Power-Managed Smart Lighting Using a Semantic Interoperability Architecture

*Sachin Bhardwaj (Eindhoven University of Technology, The Netherlands); Aly Syed (NXP semiconductors, The Netherlands); Tanir Özçelebi (Eindhoven University of Technology, The Netherlands); Johan J. Lukkien (Eindhoven University of Technology, The Netherlands)
pp. 759-760*

Smart Door Portal

*Yu Yuan-Chih (National Taipei University of Technology; Chinese Culture University, Taiwan); Shingchem You (National Taipei University of Technology, Taiwan); Dwen-Ren Tsai (Chinese Culture University, Taiwan)
pp. 761-762*

Digital Control for Home Lighting Systems with ZigBee Communication

*Chi-Huang Hung (Fu Jen Catholic University, Taiwan); Y. W. Bai (Fu Jen Catholic University, Taiwan); Ren-Yi Tsai (Fu Jen Catholic University, Taiwan)
pp. 763-764*

An Efficient Resource Management Protocol for Handling Small Resource ZigBee Devices

*Wan-Hee Cho (Chung-Ang University, Korea); Jiho Kim (Chung-Ang University, Korea); Ohyoung Song (School of Electrical and Electronics Engineering, Chung-Ang University, Korea)
pp. 765-766*

12:30 - 14:20

Closing Wednesday Keynote: Consumer Electronics – The Golden Age

12:30 - 14:10

Keynote, David Broberg, CableLabs

Optimizing Stereoscopic 3D content for Home Viewing

14:20 - 16:00

T08-S07: Multimedia Systems

Extended Architecture for Home Node Base Stations with Multimedia Services

Andreea Voicu (Eindhoven University of Technology, The Netherlands); Dmitri Jarnikov (Eindhoven University of Technology, The Netherlands)
pp. 767-768

Presence-Aware Personalized Television

Patricia Arias (Universidad Carlos III de Madrid, Spain); Rosa Sánchez (Carlos III University of Madrid, Spain); Florina Almenares (Universidad Carlos III de Madrid, Spain); Daniel Diaz-Sanchez (Universidad Carlos III de Madrid, Spain)
pp. 769-770

Fast Generation Method of 2D Code on DTV Receivers

Hiroyuki Kawakita (Japan Broadcasting Corporation, Japan); Yusei Nishimoto (NHK (Japan Broadcasting Corporation), Japan); Tomoyuki Inoue (NHK (Japan Broadcasting Corporation), Japan)
pp. 771-772

Embedded Audiovisual Recommender System for User Terminals Based on User Social and Implicit Information

Faustino A. Sánchez (Universidad Politécnica de Madrid, Spain); Marta Barrilero (Universidad Politécnica de Madrid, Spain); Federico Alvarez (Universidad Politecnica de Madrid, Spain); Guillermo Cisneros (Universidad Politécnica de Madrid, Spain)
pp. 773-774

Real-Time Television Consumption Measurement for Content Personalization System Based on Mobile Devices

Sergio Ruiz de Castroviejo (Universidad Politecnica de Madrid, Spain); Silvia Uribe (Universidad Politécnica de Madrid, Spain); Federico Alvarez (Universidad Politecnica de Madrid, Spain); José Manuel Menéndez (Universidad Politécnica de Madrid, Spain); Carlos Alberto Martín (Universidad Politécnica de Madrid, Spain)
pp. 775-776

T11-S14: CE Specialized Hardware

4.0 - 4.8 Gbps XDR Memory Channel for Graphics Intensive Consumer Applications

David Secker (Rambus Inc, USA); Yoshie Nakabayashi (Rambus Inc, USA); Yi Lu (Rambus Inc, USA); Arun Vaidyanath (Rambus Inc, USA); Gnanadeep Kollipara (Rambus Inc., USA); Philip Yeung (Rambus Inc., USA); Tsunwai Gary Yip (Rambus Inc, USA)
pp. 777-778

Design of Adaptive PD Controller for Weight Independent Target Tracking of Home Service Mobile Robot

Hwan-Joo Kwak (Korea University, Korea); Gwi-Tae Park (Korea University, Korea)
pp. 779-780

Automotive Media Player - Efficient Design and Implementation of Essential Features

Vasanthakumar Rajagopal (Aricent Technologies Holdings Ltd, India); Ravi Lakkundi (Aricent Technologies Holdings Ltd, India); Tony James (Aricent Technologies (Holdings) Ltd, India); Ashtosh Sapru (Aricent Technologies Holdings Ltd, India)
pp. 781-782

ClearPlate: An Optical Unit Combining a Scanner and a Viewfinder for an Image Capture Device

Atsuhiko Maeda (NTT Corporation, Japan); Kenji Hara (NTT Communications Corporation, Japan); Minoru Kobayashi (NTT Corporation, Japan); Masanobu Abe (Okayama University, Japan)
pp. 783-784

T11-S08: Green CE Technologies IV

Pilot Study of College Student Laptop Usage for Energy Efficiency

Morris Jones (San Jose State University, USA); Belle Wei (San Jose State University, USA); Donald Hung (San Jose State University, USA)
pp. 785-786

Device Authentication Mechanism for Smart Energy Home Area Networks

Binod Vaidya (University of Ottawa, Canada); Dimitrios Makrakis (University of Ottawa, Canada); Hussein Mouftah (University of Ottawa, Canada)
pp. 787-788

Development of a Self-Adapting Intelligent Sensor for Building Energy Saving and Smart Services

Jinsung Byun (Chung-Ang University, Korea); Sehyun Park (Chung-Ang University, Korea)
pp. 789-790

Novel Noise Reduction Scheme for Power Line Communication Systems with Smart Grid Applications

Jung Nam Bae (Kwangwoon University, Korea); Yocheol Kim (Kwangwoon University, Korea); Jin Young Kim (Kwangwoon University, Korea)
pp. 791-792

T11-S15: Object Tracking & Analysis

Face Detection Using the 3×3 Block Rank Patterns of Gradient Magnitude Images and a Geometrical Face Model

Rae-Hong Park (Sogang University, Korea); Kang-Seo Park (Sogang University, Korea); Young-Gon Kim (Sogang University, Korea)
pp. 793-794

3D Pose Estimation for Foot Motion Tracking From Image Sequences

Da-Un Jung (Chung-Ang University, Korea); Yong In Yun (Chung-Ang University, Korea); Jong Soo Choi (Chung-Ang University, Korea)
pp. 795-796

Adaptive Multi-Camera System for Real Time Object Detection

Massimo Camplani (Universidad Politécnica de Madrid, Spain); Luis Salgado (Universidad Politécnica de Madrid, Spain)
pp. 797-798

Adaboost Based Disguised Face Discrimination on Embedded Devices

Woo-han Yun (Electronics and Telecommunications Research Institute, Korea); DoHyung Kim (Electronics and Telecommunications Research Institute, Korea); Ho-Sub Yoon (ETRI, Korea); Jaeyeon Lee (ETRI, Korea); Jaehong Kim (Electronics & Telecommunication Research Institute (ETRI), Korea)
pp. 799-800

P04: Display Technologies & Devices - (Poster Session)

.....

135-Channel Electronic-Paper Driver IC for Electronic Shelf Label

Deukhee Park (Samsung Electro-Mechanics, Korea); Sanghyun Cha (Samsung Electro-Mechanics, Korea); Yuenjoong Lee (Samsung Electro-Mechanics, Korea); Chanwoo Park (Samsung Electro-Mechanics, Korea); Ohjo Kwon (Samsung Electro-Mechanics, Korea); Jaeshin Lee (Samsung Electro-Mechanics Corporation, Korea)

pp. 801-802

A Real-Time 1080p 2D-to-3D Video Conversion System

Sung-Fang Tsai (National Taiwan University, Taiwan); Chao-Chung Cheng (National Taiwan University, Taiwan); Chung-Te Li (National Taiwan University, Taiwan); Liang-Gee Chen (DSP/IC Design Lab., National Taiwan University, Taiwan)

pp. 803-804

Design Considerations for Pico-Projector Based on LCoS and 3-LEDs

Soojun Park (ETRI, Korea); Sung Min Kim (SaevaVidCore Co, Korea); Won Chee Sun (Dongguk University, Korea)

pp. 805-806

Local Tone Mapping Using K-Means Algorithm and Automatic Gamma Setting

Rae-Hong Park (Sogang University, Korea); Ji Won Lee (University of Sogang, Korea); SoonKeun Chang (Samsung Electronics Co., Ltd, Korea)

pp. 807-808

A VLSI Architecture of SVC Encoder for Mobile System

Jeoong Sung Park (Santa Clara University, USA); Tokunbo Ogunfunmi (Santa Clara University, USA)

pp. 809-810

Dynamic Gamma-Correction Algorithm for Improving Color LCD Systems

Yeong-Kang Lai (National Chung Hsing University, Taiwan); Shu-Ming Lee (National Chung Hsing University, Taiwan)

pp. 811-812

P11: Audio - (Poster Session)

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Harmonic Elimination Structures for Karaoke Mode in Spatial Audio Object Coding Scheme

Jihoon Park (KAIST, Korea); Jungpyo Hong (Korea Advanced Institute Science and Technology, Korea); Kwangki Kim (KAIST, Korea); Minsoo Hahn (Korea Advanced Institute of Science and Technology, Korea)

pp. 813-814

A Frame Erasure Concealment Method Based on Pitch and Gain Linear Prediction for AMR-WB Codec

Xinwen Mu (Jilin University, P.R. China); Hexin Chen (Jilin University, P.R. China); Yan Zhao (Jilin University, P.R. China)

pp. 815-816

P2P Music Recommender System Based on a Single-Scaled Hybrid Filtering

Hee-Jae Won (Soribada, Korea); Won-Jung Yoon (Dankook University, Korea); Kyu-Sik Park (Dankook University, Korea)
pp. 817-818

Frame Error-Robust MDCT Bit Reduction for G.729.1 by Inter-Frame Correlation

Keunseok Cho (Korea Advanced Institute of Science and Technology, Korea); Sangbae Jeong (Gyeongsang National University, Korea); Minsoo Hahn (Korea Advanced Institute of Science and Technology, Korea)
pp. 819-820

Performance Improvement of Signal Classifiers for Speech/Audio Coding by Higher-Order Statistics

Keunseok Cho (Korea Advanced Institute of Science and Technology, Korea); Minsoo Hahn (Korea Advanced Institute of Science and Technology, Korea); Sangbae Jeong (Gyeongsang National University, Korea)
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Power Control Management for Home Appliance System

Hanki Kim (Samsung Electronics, Korea); Haekwang Park (Samsung Electronics, Korea)
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Building Robust Emotion Recognition System on Heterogeneous Speech Databases

Won-Jung Yoon (Dankook University, Korea); Kyu-Sik Park (Dankook University, Korea)
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U-Paging

Yu Jin Park (Kyung Pook national university, Korea); Sung Ho Park (Kyungpook National University, Korea); Soon Ju Kang (Kyungpook National University, Korea)
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Adaptive Microphone Array Processing for High-Performance Speech Recognition in Car Environment

Jungpyo Hong (Korea Advanced Institute Science and Technology, Korea); Seungho Han (Korea Advanced Institute Science and Technology, Korea); Sangbae Jeong (Gyeongsang National University, Korea); Minsoo Hahn (Korea Advanced Institute of Science and Technology, Korea)
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Sporadic Noise Reduction for Robust Speech Recognition in Mobile Devices

Jungpyo Hong (Korea Advanced Institute Science and Technology, Korea); Jihoon Park (KAIST, Korea); Seungho Han (Korea Advanced Institute Science and Technology, Korea); Byung-Ok Kang (Electronics and Telecommunications Research Institute, Korea); Minsoo Hahn (Korea Advanced Institute of Science and Technology, Korea)
pp. 831-832

Interactive Music Contents Authoring System Based on IM AF

Inseon Jang (Electronics and Telecommunications Research Institute, Korea); Jeongil Seo (Electronics and Telecommunications Research Institute, Korea); Kyeongok Kang (ETRI(Electronics and Telecommunications Research Institute), Korea)
pp. 833-834

P17: Haptics, HID and UI - (Poster Session)

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Traveling Vibrotactile Wave Based on a Haptic Processor

Sang-Youn Kim (Korea University of Technology and Education, Korea)
pp. 835-836

FingViewer: A New Multi-Touch Force Feedback Touch Screen

Yi Yang (Beihang University, P.R. China); Yuru Zhang (Beihang University, P.R. China); Zhu Hou (Beihang University, P.R. China); ZhongYuan Chen (Beihang University, P.R. China); Betty Lemaire-Semail (University Lille 1, France)
pp. 837-838

Fast Multimedia Contents Retrieval by Partially Spoken Query

*So-Young Jeong (Samsung Electronics, Korea); Icksang Han (Samsung Electronics, Korea);
Byung-Kwan Kwak (Samsung Electronics, Korea); Jeongmi Cho (Samsung Electronics, Korea);
Jeongsu Kim (Samsung Electronics, Korea)*
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Design of an Armband Type Contact-Free Space Input Device for Human-Machine Interface

DongWan Ryoo (ETRI, Korea); Jun Seok Park (ETRI, Korea)
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Content Centric Network-Based Virtual Private Community

*JaeHoon Kim (Samsung Electronics, Korea); Myeong-Wuk Jang (Samsung Electronics, Korea);
Byoung-Joon BJ Lee (Samsung Advanced Institute of Technology, Korea)*
pp. 843-844

User Behavior-Aware Adaptive Channel Control Scheme to Reduce Channel Zapping Time of Mobile IPTV Service

Jahon Koo (Kwangwoon University, Korea); Kwangsue Chung (Kwangwoon University, Korea)
pp. 845-846

Laser Spot Pattern Recognition Based Computer Interface Using I/O Mapping Sensitive Neural Networks

Chanwoong Jung (Kyungpook National University, Korea); Minho Lee (Kyungpook National University, Korea)
pp. 847-848

Multiple Stage Transform and Its Supporting Tools in H.264/AVC

Jaekyu Jo (Kwangwoon university, Korea); Hye-Jeong Cho (Kwangwoon University, Korea); Jinho Lee (ETRI, Korea); Seyoon Jung (ETRI, Korea); Seoung-Jun Oh (Kwangwoon University, Korea)
pp. 849-850

An Adaptive Power Management System for Multimedia Applications Using Data Stream Partitioning

*Sang Oh Park (Chung-Ang University, Korea); Jae Kyoung Lee (Chung-Ang University, Korea);
Sung-Jo Kim (Chung-Ang University, Korea)*
pp. 851-852

Smart Home Service Robot Applying Self-Adaptation Technologies

Ingeol Chun (SungKyunKwan University, Korea); Hae Young Lee (ETRI, Korea); Won-Tae Kim (ETRI, Korea); Seung-Min Park (ETRI, Korea); Eunseok Lee (SungKyunKwan University, Korea)
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T11-S11: Application Frameworks, Surveillance and QA Techniques

Hardware Virtualization for Rapid and Secure CE Product Development and Life Cycle Management

Kyriakos Agavanakis (BLUEDEV, Greece); George Panagakis (BLUEdev, Greece); Nicolas-Alexander Tatlas (BLUEdev, Greece); Stelios Koutroubinas (BLUEdev, Greece)
pp. 855-856

Constant-Bandwidth Supply for Priority Processing

Martijn M. H. P. van den Heuvel (Eindhoven University of Technology, The Netherlands); Mike Holenderski (Eindhoven University of Technology, The Netherlands); Reinder J. Bril (Eindhoven University of Technology, The Netherlands); Johan J. Lukkien (Eindhoven University of Technology, The Netherlands)
pp. 857-858

Scalable Application Framework to Support IPTV Client Device Independence Based on MPEG-21

Tae-Beom Lim (KETI, Korea); KyungWon Kim (Korea Electronics Technology Institute, Korea); Yun Ju Lee (Korea Electronic Technology Institute, Korea); Jae Won Moon (Korea Electronic Technology Institute, Korea); Kyoungro Yoon (Konkuk University, Korea)
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User-Driven Optimized Test Case Design and Modeling for End-User Device Quality Inspection

Dusica Marijan (University of Novi Sad, Serbia); Vladimir Zlokolica (University of Novi Sad, Serbia); Nikola Teslic (University of Novi Sad, Serbia); Tarkan Tekcan (Vestel, Turkey); Vukota Pekovic (RT-RK d.o.o., Serbia)
pp. 861-862

Effective Bi-Directional People Flow Counting for Real Time Surveillance System

Wan-Chi Siu (The Hong Kong Polytechnic University, Hong Kong)
pp. 863-864

Real-Time Software Framework for Supporting Reconfiguration in Consumer Electronics

Marisol Garcia-Valls (Universidad Carlos III de Madrid, Spain); Pablo Basanta-Val (Universidad Carlos III de Madrid, Spain); Iria Estevez-Ayres (Universidad Carlos III de Madrid, Spain)
pp. 865-866

T01-S7: Display Processing and Testing

Processor-Based Decoupled PDP Timing Controller Design

Yeoul Na (Korea University, Korea); Seok Joong Hwang (Korea University, Korea); Cheol Ho Lee (DOESTEK Corporation, Korea); Junkyu Min (DOESTEK Corporation, Korea); Taejin Kim (DOESTEK Corporation, Korea); Seon Wook Kim (Korea University, Korea)
pp. 867-868

Automatic Black Box Testing of Television Systems on the Final Production Line

Ivan Kastelan (University of Novi Sad, Serbia); Vukota Pekovic (RT-RK d.o.o., Serbia); Nikola Teslic (University of Novi Sad, Serbia); Tarkan Tekcan (Vestel, Turkey); Dusica Marijan (University of Novi Sad, Serbia)
pp. 869-870

Fourier Spectrum Based Periodic Cell Pattern Elimination in TFT-CLD Cell Image

Chang-Do Jung (Kyungpook National University, Korea); Seyun Kim (Kyungpook National University, Korea); Hee-Yul Lee (Kyungpook National University, Korea); Byoung-Ju Yun (Kyungpook National University, Korea); Joon-Jae Lee (Keimyung University, Korea); Young-Do Lim (Kyungpook National University, Korea); Kil-Houm Park (Kyungpook National University, Daegu, Korea, Korea)
pp. 871-872

Geometric Image Compensation for a Portable Projector Based on Prewarping and Optimal Projection Area Generation

Jongkil Won (Kyungwon University, Korea); Jinsoo Cho (Kyungwon University, Korea)
pp. 873-874

Hyperrealistic Head-Up-Display for Automotive Application

Haruhiko Okumura (Toshiba Corp. R & D Center, Japan)
pp. 875-876

T11-S10: Novel Smartphone & UI Applications

"Hiya-Atsu" Mouse a Device to Augment GUIs with Temperature

Mutsuhiro Nakashige (NTT Communications Corporation, Japan); Minoru Kobayashi (NTT Corporation, Japan); Hidekazu Tamaki (NTT Corporation, Japan); Suguru Higashino (NTT Corporation, Japan)
pp. 877-878

A Proposal on Ad-Hoc Pairing of a Mobile Device and a Public Device

Yasutaka Nishimura (KDDI R&D Laboratories Inc., Japan); Naoki Imai (KDDI R&D Laboratories Inc., Japan); Manabu Isomura (KDDI R&D Laboratories Inc., Japan); Kiyohito Yoshihara (KDDI R&D Laboratories Inc., Japan)

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Guiding Light: Navigation Assistance System Using Projection Based Augmented Reality

Jae-woo Chung (Massachusetts Institute of Technology, USA); Ig-Jae Kim (Massachusetts Institute of Technology, USA); Chris Schmandt (Massachusetts Institute of Technology, USA)

pp. 881-882

Implementation of English E-Learning System Based on .Net Framework

Soobin Jeon (Kangwon National University, Korea); YoungTae Jo (University of Kangwon, Korea); Daeho Kim (Kangwon National University, Korea); Kangsik Kim (Kangsannet, Korea); Dongmahn Seo (Korea Institute of Science and Technology, Korea); Inbum Jung (Kangwon National University, Korea)

pp. 883-884

Tablet PC and Head Mounted Display for Live Closed Captioning in Education

Javier Jiménez (University Carlos III de Madrid, Spain); Ana Iglesias (Carlos III University of Madrid, Spain); Juan Francisco López (Spanish Center for Captioning and Audiodescription, Spain); Julián Hernández (Orange R&D Spain, Spain); Belén Ruiz (Universidad Carlos III de Madrid, Spain)

pp. 885-886

Using Android Smartphones in a Service-Oriented Video Surveillance System

Iria Estevez-Ayres (Universidad Carlos III de Madrid, Spain); Marisol Garcia-Valls (Universidad Carlos III de Madrid, Spain); Pablo Basanta-Val (Universidad Carlos III de Madrid, Spain); Ivan Fernandez-Pacheco (Visual Tools, Spain)

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T15-S01c: IPTV, 3D & Three-Screen TV**Korean Terrestrial 3DTV Broadcasting System: Current Status**

Wonseok Baek (Korea Radio Promotion Agency, Korea); SangJin Lee (Korea Radio Promotion Agency, Korea); JeeGyun Kim (Korea Radio Promotion Agency, Korea); Sang-II Park (Korea Communications Commission, Korea)

pp. 889-890

Partial Delivery Method with Multi-Bitrates and Resolutions for Interactive Panoramic Video Streaming System

Masayuki Inoue (NTT Corporation, Japan); Hideaki Kimata (NTT Corporation, Japan); Katsuhiko Fukazawa (NTT Corporation, Japan); Norihiko Matsuura (NTT Corporation, Japan)

pp. 891-892

Social Media-Based Three-Screen TV Service

Sun-Bum Youn (Korea Institute of Science and Technology, Korea); Hogun Park (Korea Institute of Science and Technology, Korea); Geun Young Lee (Korea Institute of Science and Technology, Korea); Dongmahn Seo (Korea Institute of Science and Technology, Korea); Suhyun Kim (Korea Institute of Science and Technology, Korea); Heedong Ko (Korea Institute of Science and Technology, Korea)

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An Ontology-Based Personalized Target Advertisement System on Interactive TV

Jongwoo Kim (INHA University, Korea); Sanggil Kang (INHA University, Korea)

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Real Time 2D to 3D Conversion: Technical and Visual Quality Requirements

Jorge Caviades (Intel Corporation, USA); Javier Villegas (UCSB, USA)

pp. 897-898

An Association Management Scheme for Seamless IPTV Services in a WLAN

T08-S06: Wireless Networks

A Scalable Approach to Geographical Multicast for Mobile Ad Hoc Networks

*Yujin Lim (University of Suwon, Korea); Sanghyun Ahn (University of Seoul, Korea); Sanggil Kang (INHA University, Korea)
pp. 901-902*

Efficient Cooperative Spectrum Sensing for Wi-Fi on TV Spectrum

*Chongjoon You (Korea University, Korea); Jae Young Lee (Korea university, Korea); Jinyoung Kim (Kwangwoon University, Korea); Jun Heo (Korea University, Korea)
pp. 903-904*

Securing WLAN Offload of Cellular Networks Using Subscriber Residential Access Gateways

*Jordan Melzer (TELUS Communications, Canada); Jim Slevinsky (TELUS Communications, Canada)
pp. 905-906*

Prediction-Based Smart Channel Scanning with Minimized Service Disruption for IEEE 802.11e WLAN

*Igor Kim (Yeungnam University, Korea); Young-Tak Kim (Yeungnam University, Korea)
pp. 907-908*

A Loosely-Coupled Rate Adaptation Scheme for Wireless Video Streaming

*Robert Stapenhurst (Provision Communication Technologies Ltd., United Kingdom); Dimitris Agrafiotis (University of Bristol, United Kingdom); James Chung-How (ProVision Communication Technologies, United Kingdom); Jon Pledge (ProVision Communication Technologies Ltd., United Kingdom)
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ZZRemote01: Remote Delivery Session (Internet)

Design of a DVP Compatible Bridge to Randomly Access Pixels of High Speed Image Sensors

*Tareq Hasan Khan (University of Saskatchewan, Canada); Khan A Wahid (University of Saskatchewan, Canada)
pp. 911-912*

Flexible Chipset Pairing - No Restrictions on Use of Smartcards in Secure Chip Based CAS

*Hoonjung Lee (Hanyang University, Korea); Junggab Son (Hanyang university, Korea); Heekuck Oh (Hanyang University, Korea)
pp. 913-914*

Performance Evaluation of QoS Technique for Supporting Multiple Contact Point Haptic Device Interactions

*Mamun Ibrahim Abu-Tair (Queen's university of Belfast, United Kingdom); Alan Marshall (Queens University Belfast, United Kingdom); Beñat Mendialdua Arroniz (Queen's university of Belfast, United Kingdom)
pp. 915-916*

Accelerating OpenVG and SVG Tiny with Multimedia Hardware

Hwanyong Lee (Huone Inc., Korea); Nakhoon Baek (Kyungpook National University, Korea); Inkyun Lee (Huone Inc., Korea); Jiyoung Yoon (Huone Inc., Korea); Olivier Pothier (ST-Ericsson, France)

