

## SUBJECT INDEX

**3D video coding**

Reducing 3D Video Coding Complexity through More Efficient Disparity Estimation. *Micallef, B. W.*, +, *T-CE February 14* 74–82

## A

**Access control**

Voice Authentication Embedded Solution for Secured Access Control. *Galka, J.*, +, *T-CE November 14* 653–661

**Acoustic coupling level**

Double-talk Robust Acoustic Echo Cancellation for CD-quality Hands-free Videoconferencing System. *Fukui, M.*, +, *T-CE August 14* 468–475

**Acoustic echo canceller**

Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M.*, +, *T-CE August 14* 461–467  
 Double-talk Robust Acoustic Echo Cancellation for CD-quality Hands-free Videoconferencing System. *Fukui, M.*, +, *T-CE August 14* 468–475

**Adaptive channel prediction**

Channel Prediction-Based Noise Reduction Algorithm for Dual-Microphone Mobile Phones. *Lee, K.*, +, *T-CE August 14* 393–401

**Address translation**

Map Cache Management Using Dual Granularity for Mobile Storage Systems. *Kim, H.*, +, *T-CE November 14* 644–652

**Alternating current analysis**

Flicker Removal for CMOS Wide Dynamic Range Imaging Based on Alternating Current Component Analysis. *Yoo, Y.*, +, *T-CE August 14* 294–301

**Assisted living**

Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M.*, +, *T-CE August 14* 402–410

**Audio**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O.*, +, *T-CE November 14* 681–689

**Audio fingerprint**

High Performance Indexing for Massive Audio Fingerprint Data. *Yu, C.*, +, *T-CE November 14* 690–695

**Authentication**

Delegation-Based Robust Authentication Model for Wireless Roaming using Portable Communication Devices. *Kumar, P.*, +, *T-CE November 14* 668–674  
 Enhanced Three-factor Security Protocol for Consumer USB Mass Storage Devices. *He, D.*, +, *T-CE February 14* 30–37

## B

**Battery management**

A Battery Lifetime Guarantee Scheme for Selective Applications in Smart Mobile Devices. *Cho, J.*, +, *T-CE February 14* 155–163

**Benchmarks**

The Impact of Network Impairment on Quality of Experience (QoE) in H.265/HEVC Video Streaming. *Nightingale, J.*, +, *T-CE May 14* 242–250

**Bidirectional long short-term memory**

Channel Mapping using Bidirectional Long Short-Term Memory for Dereverberation in Hands-Free Voice Controlled Devices. *Zhang, Z.*, +, *T-CE August 14* 525–533

**Bilateral motion estimation**

Frame Rate Up-Conversion Method Based on Texture Adaptive Bilateral Motion Estimation. *Kim, J.-H.*, +, *T-CE August 14* 445–452

**Binaural rendering**

Stereo Upmix-based Binaural Auralization for Mobile Devices. *Lee, T.*, +, *T-CE August 14* 411–419

**Biometric**

Delegation-Based Robust Authentication Model for Wireless Roaming using Portable Communication Devices. *Kumar, P.*, +, *T-CE November 14* 668–674

**Biometry**

Voice Authentication Embedded Solution for Secured Access Control.  
*Gatka, J., +, T-CE November 14 653–661*

**Bi-predictive motion estimation (ME)**

Bi-Predictive Motion Estimation for HEVC on a Graphics Processing Unit (GPU). *Radicke, S., +, T-CE November 14 728–736*

**Bitrate**

Content-Aware Resource Allocation in OFDM Systems for Energy-Efficient Video Transmission. *Danish, E., +, T-CE August 14 320–328*

**Blind source separation**

Modified Subspace Method Based on Convex Model for Underdetermined Blind Speech Separation. *Zhang, L., +, T-CE May 14 225–232*

**Block management scheme**

Page Replacement Algorithm Based on Counting Bloom Filter for NAND Flash Memory. *Liu, J., +, T-CE November 14 636–643*

**Buffer management**

PT-LRU: A Probabilistic Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Cui, J., +, T-CE November 14 614–622*

**C****Cache**

A Cache-Aware Motion Estimation Organization for a Hardware-based H.264 Encoder. *Woo, D., +, T-CE February 14 83–91*

**Camera/display/transducer systems**

A Concept of a Magnetically-Actuated Optical Image Stabilizer for Mobile Applications. *Pournazari, P., +, T-CE February 14 10–17*

Correction of the Overexposed Region in Digital Color Image. *Lee, D.-H., +, T-CE May 14 173–178*

Flicker Removal for CMOS Wide Dynamic Range Imaging Based on Alternating Current Component Analysis. *Yoo, Y., +, T-CE August 14 294–301*

Lens Distortion Correction and Enhancement Based on Local Self-similarity for High-quality Consumer Imaging Systems. *Kim, D., +, T-CE February 14 18–22*

Touch Pointer: Rethink Point-and-Click for Accurate Indirect Touch Interactions on Small Touchscreens. *Kwon, T., +, T-CE August 14 285–293*

Visual Comfort Improvement in Stereoscopic 3D Displays Using Perceptually Plausible Assessment Metric of Visual Comfort. *Jung, Y. J., +, T-CE February 14 1–9*

**Cell Broadcast service**

An Efficient Multiplexing Method of T-DMB and Cell Broadcast Service in Emergency Alert Systems. *Song, M., +, T-CE November 14 549–557*

**CELP**

Complexity Reduction in Karhunen-Loève Transform based Speech Coder for Voice Transmission. *Ju, H., +, T-CE February 14 130–136*

**Channel zapping time**

An Efficient Hot Channel Identification Scheme for IPTV Channel Navigation. *Lee, E., +, T-CE February 14 124–129*

**Chaos inspired motion feature**

Visual Voice Activity Detection via Chaos Based Lip Motion Measure Robust under Illumination Changes. *Song, T., +, T-CE May 14 251–257*

**Circular Hough transform**

Resource-Aware Architecture Design and Implementation of Hough Transform for a Real-time Iris Boundary Detection System. *Ngô, H. T., +, T-CE August 14 485–492*

**Cloud computing**

Achieving Effective Cloud Search Services: Multi-keyword Ranked Search over Encrypted Cloud Data Supporting Synonym Query. *Fu, Z., +, T-CE February 14 164–172*

**Cloud-based mobile augmentation**

An Experimental Analysis on Cloud-based Mobile Augmentation in Mobile Cloud Computing. *Abolfazli, S., +, T-CE February 14 146–154*

**Cloud-DVR (C-DVR)**

SC-DVR: A Secure Cloud Computing Based Framework for DVR Service. *Son, J., +, T-CE August 14 368–374*

+ et al.

**CMOS WDR system**

Flicker Removal for CMOS Wide Dynamic Range Imaging Based on Alternating Current Component Analysis. *Yoo, Y., +, T-CE August 14 294–301*

**Codebook search**

Complexity Reduction in Karhunen-Loève Transform based Speech Coder for Voice Transmission. *Ju, H., +, T-CE February 14 130–136*

**Cognitive radio system**

A New Scheme for Compliance with TV White Space Regulations Using Wi-Fi Modules in a Cognitive Radio System. *Kang, K.-M., +, T-CE November 14 567–573*

**Collaboration**

An Uneven-Dual-Core Processor Based Mobile Platform for Facilitating the Collaboration among Various Embedded Electronic Devices. *Liu, L., +, T-CE February 14 137–145*

**Color restoration**

Correction of the Overexposed Region in Digital Color Image. *Lee, D.-H., +, T-CE May 14 173–178*

**Color stretching**

Correction of the Overexposed Region in Digital Color Image. *Lee, D.-H., +, T-CE May 14 173–178*

**Communications**

A Crest Factor Reduction Scheme Based on Recursive Optimum Frequency Domain Matrix. *Varahram, P., +, T-CE May 14 179–183*

A Low Complexity Soft-Output Detection Algorithm for 2x2 Multiple-Input Multiple-Output Multiband-OFDM Systems Using Dual Carrier Modulation. *Park, J., +, T-CE August 14 311–319*

A New Scheme for Compliance with TV White Space Regulations Using Wi-Fi Modules in a Cognitive Radio System. *Kang, K.-M., +, T-CE November 14 567–573*

A Precoding and Detection Scheme for OFDM Based Wireless Communication System in High-Speed Environment. *Zhang, R., +, T-CE November 14 558–566*

An Efficient Multiplexing Method of T-DMB and Cell Broadcast Service in Emergency Alert Systems. *Song, M., +, T-CE November 14 549–557*

Analyzing the Availability of TV White Spaces in Dynamic Broadcast. *Palka, P., +, T-CE August 14 302–310*

Content-Aware Resource Allocation in OFDM Systems for Energy-Efficient Video Transmission. *Danish, E., +, T-CE August 14 320–328*

Design and Implementation of a Novel Emergency Wake-up Alert System within a Conventional T-DMB Service Network. *Kim, G., +, T-CE November 14 574–579*

**Computation outsourcing**

An Experimental Analysis on Cloud-based Mobile Augmentation in Mobile Cloud Computing. *Abolfazli, S., +, T-CE February 14 146–154*

**Computational imaging**

Three Dimensional Moving Pictures with a Single Imager and Microfluidic Lens. *Liu, C., +, T-CE May 14 258–266*

**Connected homes**

Software-defined Home Networking Devices for Multi-home Visual Sharing. *Jo, J., +, T-CE August 14 534–539*

**Consumer electronic devices**

Compressed and Shared Swap to Extend Available Memory in Virtualized Consumer Electronics. *Lee, C., +, T-CE November 14 628–635*

**Consumer electronics**

An Efficient File-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Yan, H., +, T-CE November 14 623–627*

An Uneven-Dual-Core Processor Based Mobile Platform for Facilitating the Collaboration among Various Embedded Electronic Devices. *Liu, L., +, T-CE February 14 137–145*

CLRU: A New Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Xu, G., +, T-CE February 14 38–44*

PT-LRU: A Probabilistic Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Cui, J., +, T-CE November 14 614–622*

Swap-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Xu, G., +, T-CE February 14 60–65*

**Consumer storage**

Enhanced Three-factor Security Protocol for Consumer USB Mass Storage Devices. *He, D., +, T-CE February 14 30–37*

**Consumer-centric cloud**

Achieving Effective Cloud Search Services: Multi-keyword Ranked Search over Encrypted Cloud Data Supporting Synonym Query. *Fu, Z., +, T-CE February 14* 164–172

**Consumer-centric cloud computing**

Smart Cloud Search Services: Verifiable Keyword-based Semantic Search over Encrypted Cloud Data. *Fu, Z., +, T-CE November 14* 762–770

**Contents search and browsing**

Inferring Search Intents from Remote Control Movement Patterns: A New Content Search Method for Smart TV. *Jeong, J.-W., +, T-CE February 14* 92–98

**Context-aware service system**

Zone-aware Service System with Nomadic Resources for Cost-Effective Pervasive Infrastructure. *Jeong, D., +, T-CE August 14* 329–337

**Control systems**

A Fully Integrated IEEE 802.15.4g MR-FSK SoC for Smart Utility Network Applications. *Oh, M.-K., +, T-CE November 14* 580–586  
 An Analysis of Magnetic Resonance Coupling Effects on Wireless Power Transfer by Coil Inductance and Placement. *Hwang, H., +, T-CE May 14* 203–209  
 Automated Power Model Generation Method for Smartphones. *Lee, J., +, T-CE May 14* 190–197  
 Degradation Diagnosis System of Photovoltaic Panels with Mobile Application. *Lee, B., +, T-CE August 14* 338–346  
 PLC-Based Photovoltaic System Management for Smart Home Energy Management System. *Han, J., +, T-CE May 14* 184–189  
 Smart Home Energy Management System Including Renewable Energy Based on ZigBee and PLC. *Han, J., +, T-CE May 14* 198–202  
 Zone-aware Service System with Nomadic Resources for Cost-Effective Pervasive Infrastructure. *Jeong, D., +, T-CE August 14* 329–337

**Convex model**

Modified Subspace Method Based on Convex Model for Underdetermined Blind Speech Separation. *Zhang, L., +, T-CE May 14* 225–232

**Counting Bloom Filter**

Page Replacement Algorithm Based on Counting Bloom Filter for NAND Flash Memory. *Liu, J., +, T-CE November 14* 636–643

**Coupling effect**

An Analysis of Magnetic Resonance Coupling Effects on Wireless Power Transfer by Coil Inductance and Placement. *Hwang, H., +, T-CE May 14* 203–209

**Crest factor**

A Crest Factor Reduction Scheme Based on Recursive Optimum Frequency Domain Matrix. *Varahram, P., +, T-CE May 14* 179–183

**D****Data separation scheme**

Page Replacement Algorithm Based on Counting Bloom Filter for NAND Flash Memory. *Liu, J., +, T-CE November 14* 636–643

**Degradation diagnosis system**

Degradation Diagnosis System of Photovoltaic Panels with Mobile Application. *Lee, B., +, T-CE August 14* 338–346

**De-interlacing**

Edge-adaptive Spatial Video De-interlacing Algorithms Based on Fuzzy Logic. *Brox, P., +, T-CE August 14* 375–383

**Delay variation**

Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M., +, T-CE August 14* 461–467

**Delegation**

Delegation-Based Robust Authentication Model for Wireless Roaming using Portable Communication Devices. *Kumar, P., +, T-CE November 14* 668–674

**Depth from defocus**

Three Dimensional Moving Pictures with a Single Imager and Microfluidic Lens. *Liu, C., +, T-CE May 14* 258–266

**Depth image enhancement**

A Novel Depth Image Enhancement Method Based on the Linear Surface Model. *Kang, S.-J., +, T-CE November 14* 710–718

**Dereverberation**

Channel Mapping using Bidirectional Long Short-Term Memory for Dereverberation in Hands-Free Voice Controlled Devices. *Zhang, Z., +, T-CE August 14* 525–533

**Differential phase detection**

Track Error Detection System with Waveform Comparison Method for Super-Resolution Optical Read-Only-Memory Disc. *Nakai, K., +, T-CE August 14* 356–362

**Digital signal processor**

Voice Activity Detection System for Smart Earphones. *Lezzoum, N., +, T-CE November 14* 737–744

**Digital video recorder (DVR)**

SC-DVR: A Secure Cloud Computing Based Framework for DVR Service. *Son, J., +, T-CE August 14* 368–374  
 Simulation-based Optimization of Wear Leveling for Solid-State Disk Digital Video Recording. *Russ, S. H., +, T-CE August 14* 363–367

**Disparity estimation**

Hardware Implementation of a Full HD Real-time Disparity Estimation Algorithm. *Werner, M., +, T-CE February 14* 66–73  
 Reducing 3D Video Coding Complexity through More Efficient Disparity Estimation. *Micallef, B. W., +, T-CE February 14* 74–82

**Distortion correction**

Lens Distortion Correction and Enhancement Based on Local Self-similarity for High-quality Consumer Imaging Systems. *Kim, D., +, T-CE February 14* 18–22

**Doppler spread**

A Precoding and Detection Scheme for OFDM Based Wireless Communication System in High-Speed Environment. *Zhang, R., +, T-CE November 14* 558–566

**Doubletalk**

Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M., +, T-CE August 14* 461–467  
 Double-talk Robust Acoustic Echo Cancellation for CD-quality Hands-free Videoconferencing System. *Fukui, M., +, T-CE August 14* 468–475

**Dual carrier modulation (DCM)**

A Low Complexity Soft-Output Detection Algorithm for 2×2 Multiple-Input Multiple-Output Multiband-OFDM Systems Using Dual Carrier Modulation. *Park, J., +, T-CE August 14* 311–319

**Dual-microphone mobile phone**

Channel Prediction-Based Noise Reduction Algorithm for Dual-Microphone Mobile Phones. *Lee, K., +, T-CE August 14* 393–401

**Dynamic adaptive streaming**

HAVS: Hybrid Adaptive Video Streaming for Mobile Devices. *Hwang, J., +, T-CE May 14* 210–216

**Dynamic broadcast**

Analyzing the Availability of TV White Spaces in Dynamic Broadcast. *Palka, P., +, T-CE August 14* 302–310

**E****Edge adaptive**

Edge-adaptive Spatial Video De-interlacing Algorithms Based on Fuzzy Logic. *Brox, P., +, T-CE August 14* 375–383

**Eigen directional bit-plane (EDBP)**

Eigen Directional Bit-Planes for Robust Face Recognition. *Lei, L., +, T-CE November 14* 702–709

**Elderly monitoring**

An Enhanced Fall Detection System for Elderly Person Monitoring using Consumer Home Networks. *Wang, J., +, T-CE February 14* 23–29

**Embedded multi-core system**

Design of OpenCL Framework for Embedded Multi-core Processors. *Hong, J.-H., +, T-CE May 14* 233–241

**Embedded systems**

Fast Responsive Flash Translation Layer for Smart Devices. *Kwon, S. J., +, T-CE February 14* 52–59  
 Voice Authentication Embedded Solution for Secured Access Control. *Gatka, J., +, T-CE November 14* 653–661

**Emergency alert system**

An Efficient Multiplexing Method of T-DMB and Cell Broadcast Service in Emergency Alert Systems. *Song, M.*, +, *T-CE November 14* 549–557

**Emergency broadcast system**

Design and Implementation of a Novel Emergency Wake-up Alert System within a Conventional T-DMB Service Network. *Kim, G.*, +, *T-CE November 14* 574–579

**Encryption strategy**

An Encryption Approach to Secure Modification and Deletion for Flash-based Storage. *Jin, R.*, +, *T-CE November 14* 662–667

**Energy based feature**

Voice Activity Detection System for Smart Earphones. *Lezzoum, N.*, +, *T-CE November 14* 737–744

**Energy efficiency**

Selective Memory Deduplication for Cost Efficiency in Mobile Smart Devices. *Kim, S.-H.*, +, *T-CE May 14* 276–284

**Energy estimation**

Energy-aware Decoder Management: A Case Study on RVC-CAL Specification based on Just-In-Time Adaptive Decoder Engine. *Ren, R.*, +, *T-CE August 14* 499–507

**Energy hole problem**

An Efficient Energy Hole Alleviating Algorithm for Wireless Sensor Networks. *Xue, Y.*, +, *T-CE August 14* 347–355

**Energy reduction**

A Computation and Energy Reduction Technique for HEVC Intra Mode Decision. *Ozcan, E.*, +, *T-CE November 14* 745–753

**Energy-aware decoder reconfiguration**

Energy-aware Decoder Management: A Case Study on RVC-CAL Specification based on Just-In-Time Adaptive Decoder Engine. *Ren, R.*, +, *T-CE August 14* 499–507

**Energy-aware scheduling**

A Battery Lifetime Guarantee Scheme for Selective Applications in Smart Mobile Devices. *Cho, J.*, +, *T-CE February 14* 155–163

**Energy-centric scheduling**

A Linux Implementation of the Energy-based Fair Queuing Scheduling Algorithm for Battery-Limited Mobile Systems. *Wei, J.*, +, *T-CE May 14* 267–275

**Expectation maximization**

Three Dimensional Moving Pictures with a Single Imager and Microfluidic Lens. *Liu, C.*, +, *T-CE May 14* 258–266

**External memory access**

A Cache-Aware Motion Estimation Organization for a Hardware-based H.264 Encoder. *Woo, D.*, +, *T-CE February 14* 83–91

**F****Face recognition**

Eigen Directional Bit-Planes for Robust Face Recognition. *Lei, L.*, +, *T-CE November 14* 702–709

**Fall detection system**

An Enhanced Fall Detection System for Elderly Person Monitoring using Consumer Home Networks. *Wang, J.*, +, *T-CE February 14* 23–29

**Fast disparity estimation**

Reducing 3D Video Coding Complexity through More Efficient Disparity Estimation. *Micallef, B. W.*, +, *T-CE February 14* 74–82

**Fast frame rate up conversion**

Frame Rate Up-Conversion Method Based on Texture Adaptive Bilateral Motion Estimation. *Kim, J.-H.*, +, *T-CE August 14* 445–452

**Fast mode selection**

Reducing 3D Video Coding Complexity through More Efficient Disparity Estimation. *Micallef, B. W.*, +, *T-CE February 14* 74–82

**Fast search**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O.*, +, *T-CE November 14* 681–689

+ et al.

**Feedback control**

A Concept of a Magnetically-Actuated Optical Image Stabilizer for Mobile Applications. *Pournazari, P.*, +, *T-CE February 14* 10–17

**File systems**

An Efficient File-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Yan, H.*, +, *T-CE November 14* 623–627

**Finite state machine**

Automatic User State Recognition for Hand Gesture Based Low-Cost Television Control System. *Lian, S.*, +, *T-CE February 14* 107–115

**Flash memory**

An Encryption Approach to Secure Modification and Deletion for Flash-based Storage. *Jin, R.*, +, *T-CE November 14* 662–667

Fast Responsive Flash Translation Layer for Smart Devices. *Kwon, S. J.*, +, *T-CE February 14* 52–59

Page Replacement Algorithm Based on Counting Bloom Filter for NAND Flash Memory. *Liu, J.*, +, *T-CE November 14* 636–643

PT-LRU: A Probabilistic Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Cui, J.*, +, *T-CE November 14* 614–622

Simulation-based Optimization of Wear Leveling for Solid-State Disk Digital Video Recording. *Russ, S. H.*, +, *T-CE August 14* 363–367

**Flash translation layer**

An Efficient File-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Yan, H.*, +, *T-CE November 14* 623–627

Fast Responsive Flash Translation Layer for Smart Devices. *Kwon, S. J.*, +, *T-CE February 14* 52–59

Map Cache Management Using Dual Granularity for Mobile Storage Systems. *Kim, H.*, +, *T-CE November 14* 644–652

**Flicker removal**

Flicker Removal for CMOS Wide Dynamic Range Imaging Based on Alternating Current Component Analysis. *Yoo, Y.*, +, *T-CE August 14* 294–301

**FPGA**

FPGA Implementation of a Full HD Real-time HEVC Main Profile Decoder. *Engelhardt, D.*, +, *T-CE August 14* 476–484

Hardware Implementation of a Full HD Real-time Disparity Estimation Algorithm. *Werner, M.*, +, *T-CE February 14* 66–73

Resource-Aware Architecture Design and Implementation of Hough Transform for a Real-time Iris Boundary Detection System. *Ng, H. T.*, +, *T-CE August 14* 485–492

**Fuzzy inference systems**

Edge-adaptive Spatial Video De-interlacing Algorithms Based on Fuzzy Logic. *Brox, P.*, +, *T-CE August 14* 375–383

**G****Garbage collection**

Swap-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Xu, G.*, +, *T-CE February 14* 60–65

**Garbage collection algorithm**

An Efficient File-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Yan, H.*, +, *T-CE November 14* 623–627

**Generalized connection**

Generalized Connections and Incentives for Supporting CE Devices in Live Streaming Systems. *de Sales, L. M.*, +, *T-CE November 14* 605–613

**Genetic algorithm**

Content-Aware Resource Allocation in OFDM Systems for Energy-Efficient Video Transmission. *Danish, E.*, +, *T-CE August 14* 320–328

**Glyph-based gesture**

Trace Select: Acquiring Remote Targets with Gesture Guides Generated from Glyphs. *Maeda, A.*, +, *T-CE August 14* 453–460

**Graphics processing unit (GPU)**

Bi-Predictive Motion Estimation for HEVC on a Graphics Processing Unit (GPU). *Radicke, S.*, +, *T-CE November 14* 728–736

**Green computing**

Automated Power Model Generation Method for Smartphones. *Lee, J.*, +, *T-CE May 14* 190–197

## H

**H.264**

A Cache-Aware Motion Estimation Organization for a Hardware-based H.264 Encoder. *Woo, D.*, +, *T-CE February 14* 83–91  
 Subjective Evaluation of HEVC and AVC/H.264 in Mobile Environments. *Garcia, R.*, +, *T-CE February 14* 116–123

**H.264/MPEG4-AVC**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O.*, +, *T-CE November 14* 681–689

**H.265**

The Impact of Network Impairment on Quality of Experience (QoE) in H.265/HEVC Video Streaming. *Nightingale, J.*, +, *T-CE May 14* 242–250

**Hadamard transform**

A Computation and Energy Reduction Technique for HEVC Intra Mode Decision. *Ozcan, E.*, +, *T-CE November 14* 745–753

**Hand gesture**

Automatic User State Recognition for Hand Gesture Based Low-Cost Television Control System. *Lian, S.*, +, *T-CE February 14* 107–115

**Hand gesture recognition**

Hand Gesture Based Remote Control System Using Infrared Sensors and a Camera. *Erden, F.*, +, *T-CE November 14* 675–680

**Hand-free voiced controlled devices**

Channel Mapping using Bidirectional Long Short-Term Memory for Dereverberation in Hands-Free Voice Controlled Devices. *Zhang, Z.*, +, *T-CE August 14* 525–533

**Hands-free**

Double-talk Robust Acoustic Echo Cancellation for CD-quality Hands-free Videoconferencing System. *Fukui, M.*, +, *T-CE August 14* 468–475

**Hardware implementation**

A Computation and Energy Reduction Technique for HEVC Intra Mode Decision. *Ozcan, E.*, +, *T-CE November 14* 745–753  
 A Low Energy HEVC Inverse Transform Hardware. *Kalali, E.*, +, *T-CE November 14* 754–761  
 FPGA Implementation of a Full HD Real-time HEVC Main Profile Decoder. *Engelhardt, D.*, +, *T-CE August 14* 476–484

**Hash table**

High Performance Indexing for Massive Audio Fingerprint Data. *Yu, C.*, +, *T-CE November 14* 690–695

**Heart rate fluctuation**

An Enhanced Fall Detection System for Elderly Person Monitoring using Consumer Home Networks. *Wang, J.*, +, *T-CE February 14* 23–29

**Heterogeneous computing**

Design of OpenCL Framework for Embedded Multi-core Processors. *Hong, J.-H.*, +, *T-CE May 14* 233–241

**HEVC**

A Computation and Energy Reduction Technique for HEVC Intra Mode Decision. *Ozcan, E.*, +, *T-CE November 14* 745–753  
 A Low Energy HEVC Inverse Transform Hardware. *Kalali, E.*, +, *T-CE November 14* 754–761  
 FPGA Implementation of a Full HD Real-time HEVC Main Profile Decoder. *Engelhardt, D.*, +, *T-CE August 14* 476–484  
 Subjective Evaluation of HEVC and AVC/H.264 in Mobile Environments. *Garcia, R.*, +, *T-CE February 14* 116–123  
 The Impact of Network Impairment on Quality of Experience (QoE) in H.265/HEVC Video Streaming. *Nightingale, J.*, +, *T-CE May 14* 242–250

**High density optical disc**

Track Error Detection System with Waveform Comparison Method for Super-Resolution Optical Read-Only-Memory Disc. *Nakai, K.*, +, *T-CE August 14* 356–362

**High efficiency video coding (HEVC)**

Bi-Predictive Motion Estimation for HEVC on a Graphics Processing Unit (GPU). *Radicke, S.*, +, *T-CE November 14* 728–736

**High performance indexing**

High Performance Indexing for Massive Audio Fingerprint Data. *Yu, C.*, +, *T-CE November 14* 690–695

**Hole filling**

A Novel Depth Image Enhancement Method Based on the Linear Surface Model. *Kang, S.-J.*, +, *T-CE November 14* 710–718

**Home and personal healthcare**

An Enhanced Fall Detection System for Elderly Person Monitoring using Consumer Home Networks. *Wang, J.*, +, *T-CE February 14* 23–29

**Home energy management system**

Degradation Diagnosis System of Photovoltaic Panels with Mobile Application. *Lee, B.*, +, *T-CE August 14* 338–346  
 PLC-Based Photovoltaic System Management for Smart Home Energy Management System. *Han, J.*, +, *T-CE May 14* 184–189  
 Smart Home Energy Management System Including Renewable Energy Based on ZigBee and PLC. *Han, J.*, +, *T-CE May 14* 198–202

**Home gateway**

Degradation Diagnosis System of Photovoltaic Panels with Mobile Application. *Lee, B.*, +, *T-CE August 14* 338–346

**Home monitoring**

Obstacle Avoidance Routing Scheme through Optimal Sink Movement for Home Monitoring and Mobile Robotic Consumer Devices. *Chanak, P.*, +, *T-CE November 14* 596–604

**Home robot systems**

A Robust Obstacle Detection Method for Robotic Vacuum Cleaners. *Kang, M.-C.*, +, *T-CE November 14* 587–595  
 Obstacle Avoidance Routing Scheme through Optimal Sink Movement for Home Monitoring and Mobile Robotic Consumer Devices. *Chanak, P.*, +, *T-CE November 14* 596–604

**HomePlug**

PLC-Based Photovoltaic System Management for Smart Home Energy Management System. *Han, J.*, +, *T-CE May 14* 184–189

**Homography normalization**

Improving the Usability of Remote Eye Gaze Tracking for Human-Device Interaction. *Choi, K.-A.*, +, *T-CE August 14* 493–498

**Hot channel**

An Efficient Hot Channel Identification Scheme for IPTV Channel Navigation. *Lee, E.*, +, *T-CE February 14* 124–129

**Household photovoltaic system**

Degradation Diagnosis System of Photovoltaic Panels with Mobile Application. *Lee, B.*, +, *T-CE August 14* 338–346

**Human-computer interface**

Multilingual Speech-to-Speech Translation System for Mobile Consumer Devices. *Yun, S.*, +, *T-CE August 14* 508–516

**Hybrid adaptive video streaming**

HAVS: Hybrid Adaptive Video Streaming for Mobile Devices. *Hwang, J.*, +, *T-CE May 14* 210–216

## I

**IDCT**

A Low Energy HEVC Inverse Transform Hardware. *Kalali, E.*, +, *T-CE November 14* 754–761

**IDST**

A Low Energy HEVC Inverse Transform Hardware. *Kalali, E.*, +, *T-CE November 14* 754–761

**IEEE 802.15.4g**

A Fully Integrated IEEE 802.15.4g MR-FSK SoC for Smart Utility Network Applications. *Oh, M.-K.*, +, *T-CE November 14* 580–586

**Image enhancement**

Lens Distortion Correction and Enhancement Based on Local Self-similarity for High-quality Consumer Imaging Systems. *Kim, D.*, +, *T-CE February 14* 18–22

**Image processing**

A Robust Obstacle Detection Method for Robotic Vacuum Cleaners. *Kang, M.-C.*, +, *T-CE November 14* 587–595

**Image segmentation**

Image Segmentation Using Linked Mean-Shift Vectors and Its Implementation on GPU. *Cho, H.*, +, *T-CE November 14* 719–727

**Image stabilization**

A Concept of a Magnetically-Actuated Optical Image Stabilizer for Mobile Applications. *Pournazari, P.*, +, *T-CE February 14* 10–17

**Incentives**

Generalized Connections and Incentives for Supporting CE Devices in Live Streaming Systems. *de Sales, L. M.*, +, *T-CE November 14* 605–613

**Indirect video**

A Real-Time System for Detecting Indecent Videos Based on Spatiotemporal Patterns. *Jung, S.*, +, *T-CE November 14* 696–701

**Indirect feature enhancement**

Channel Mapping using Bidirectional Long Short-Term Memory for Dereverberation in Hands-Free Voice Controlled Devices. *Zhang, Z.*, +, *T-CE August 14* 525–533

**Infrared sensors**

Hand Gesture Based Remote Control System Using Infrared Sensors and a Camera. *Erden, F.*, +, *T-CE November 14* 675–680

**Inter-carrier interference (ICI)**

A Precoding and Detection Scheme for OFDM Based Wireless Communication System in High-Speed Environment. *Zhang, R.*, +, *T-CE November 14* 558–566

**Internal memory access**

A Cache-Aware Motion Estimation Organization for a Hardware-based H.264 Encoder. *Woo, D.*, +, *T-CE February 14* 83–91

**Internet of things**

Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M.*, +, *T-CE August 14* 402–410

**Intra mode decision**

A Computation and Energy Reduction Technique for HEVC Intra Mode Decision. *Ozcan, E.*, +, *T-CE November 14* 745–753

**Inverse transform**

A Low Energy HEVC Inverse Transform Hardware. *Kalali, E.*, +, *T-CE November 14* 754–761

**IPTV**

An Efficient Hot Channel Identification Scheme for IPTV Channel Navigation. *Lee, E.*, +, *T-CE February 14* 124–129

**Iris detection and recognition**

Resource-Aware Architecture Design and Implementation of Hough Transform for a Real-time Iris Boundary Detection System. *Ngô, H. T.*, +, *T-CE August 14* 485–492

**J****Journaling file system**

Reducing Excessive Journaling Overhead with Small-Sized NVRAM for Mobile Devices. *Kim, J.*, +, *T-CE May 14* 217–224

**Just-in-time decoder engine**

Energy-aware Decoder Management: A Case Study on RVC-CAL Specification based on Just-In-Time Adaptive Decoder Engine. *Ren, R.*, +, *T-CE August 14* 499–507

**K****Key management**

An Encryption Approach to Secure Modification and Deletion for Flash-based Storage. *Jin, R.*, +, *T-CE November 14* 662–667

**Keyword search**

Achieving Effective Cloud Search Services: Multi-keyword Ranked Search over Encrypted Cloud Data Supporting Synonym Query. *Fu, Z.*, +, *T-CE February 14* 164–172

**KLT-CVQ**

Complexity Reduction in Karhunen-Loève Transform based Speech Coder for Voice Transmission. *Ju, H.*, +, *T-CE February 14* 130–136

**L****LCD motion blurs**

Frame Rate Up-Conversion Method Based on Texture Adaptive Bilateral Motion Estimation. *Kim, J.-H.*, +, *T-CE August 14* 445–452

+ et al.

**Least squares method**

A Novel Depth Image Enhancement Method Based on the Linear Surface Model. *Kang, S.-J.*, +, *T-CE November 14* 710–718

**L-HRM**

Hardware Implementation of a Full HD Real-time Disparity Estimation Algorithm. *Werner, M.*, +, *T-CE February 14* 66–73

**Lightness recovery**

Correction of the Overexposed Region in Digital Color Image. *Lee, D.-H.*, +, *T-CE May 14* 173–178

**Line detection**

A Robust Obstacle Detection Method for Robotic Vacuum Cleaners. *Kang, M.-C.*, +, *T-CE November 14* 587–595

**Linear surface model**

A Novel Depth Image Enhancement Method Based on the Linear Surface Model. *Kang, S.-J.*, +, *T-CE November 14* 710–718

**Linux scheduler**

A Linux Implementation of the Energy-based Fair Queuing Scheduling Algorithm for Battery-Limited Mobile Systems. *Wei, J.*, +, *T-CE May 14* 267–275

**Live streaming**

Generalized Connections and Incentives for Supporting CE Devices in Live Streaming Systems. *de Sales, L. M.*, +, *T-CE November 14* 605–613

**Local binary pattern (LBP)**

Eigen Directional Bit-Planes for Robust Face Recognition. *Lei, L.*, +, *T-CE November 14* 702–709

**Local self-similarity**

Lens Distortion Correction and Enhancement Based on Local Self-similarity for High-quality Consumer Imaging Systems. *Kim, D.*, +, *T-CE February 14* 18–22

**Localization**

Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M.*, +, *T-CE August 14* 402–410

**Lost object search**

Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M.*, +, *T-CE August 14* 402–410

**Low energy**

A Low Energy HEVC Inverse Transform Hardware. *Kalali, E.*, +, *T-CE November 14* 754–761

**M****M search**

Complexity Reduction in Karhunen-Loève Transform based Speech Coder for Voice Transmission. *Ju, H.*, +, *T-CE February 14* 130–136

**Machine translation**

Multilingual Speech-to-Speech Translation System for Mobile Consumer Devices. *Yun, S.*, +, *T-CE August 14* 508–516

**Magnetic actuators**

A Concept of a Magnetically-Actuated Optical Image Stabilizer for Mobile Applications. *Pournazari, P.*, +, *T-CE February 14* 10–17

**Magnetic disk**

CLRU: A New Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Xu, G.*, +, *T-CE February 14* 38–44

**Magnetic resonance**

An Analysis of Magnetic Resonance Coupling Effects on Wireless Power Transfer by Coil Inductance and Placement. *Hwang, H.*, +, *T-CE May 14* 203–209

**Map cache**

Map Cache Management Using Dual Granularity for Mobile Storage Systems. *Kim, H.*, +, *T-CE November 14* 644–652

**Markov random field**

Three Dimensional Moving Pictures with a Single Imager and Microfluidic Lens. *Liu, C.*, +, *T-CE May 14* 258–266

**Mass storage device**

Enhanced Three-factor Security Protocol for Consumer USB Mass Storage Devices. *He, D.*, +, *T-CE February 14* 30–37

**Mean-shift algorithm**

Image Segmentation Using Linked Mean-Shift Vectors and Its Implementation on GPU. *Cho, H.*, +, *T-CE November 14* 719–727

**Memory compression**

Compressed and Shared Swap to Extend Available Memory in Virtualized Consumer Electronics. *Lee, C.*, +, *T-CE November 14* 628–635

**Memory deduplication**

Selective Memory Deduplication for Cost Efficiency in Mobile Smart Devices. *Kim, S.-H.*, +, *T-CE May 14* 276–284

**Memory management**

Selective Memory Deduplication for Cost Efficiency in Mobile Smart Devices. *Kim, S.-H.*, +, *T-CE May 14* 276–284

**Microelectromechanical systems**

A Concept of a Magnetically-Actuated Optical Image Stabilizer for Mobile Applications. *Pournazari, P.*, +, *T-CE February 14* 10–17

**Microlens**

A Concept of a Magnetically-Actuated Optical Image Stabilizer for Mobile Applications. *Pournazari, P.*, +, *T-CE February 14* 10–17

**Microphone array**

Multi-Channel Audio Recording Based on Superdirective Beamforming for Portable Multimedia Recording Devices. *Kim, S. M.*, +, *T-CE August 14* 429–435

**Microphone-sensitivity change**

Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M.*, +, *T-CE August 14* 461–467

**Mobile**

Subjective Evaluation of HEVC and AVC/H.264 in Mobile Environments. *Garcia, R.*, +, *T-CE February 14* 116–123

**Mobile cloud computing**

An Adaptive Remote Display Scheme to Deliver Mobile Cloud Services. *Eom, B.*, +, *T-CE August 14* 540–547

An Experimental Analysis on Cloud-based Mobile Augmentation in Mobile Cloud Computing. *Abolfazli, S.*, +, *T-CE February 14* 146–154

**Mobile computing**

An Uneven-Dual-Core Processor Based Mobile Platform for Facilitating the Collaboration among Various Embedded Electronic Devices. *Liu, L.*, +, *T-CE February 14* 137–145

**Mobile device**

Stereo Upmix-based Binaural Auralization for Mobile Devices. *Lee, T.*, +, *T-CE August 14* 411–419

**Mobile devices**

An Analysis of Magnetic Resonance Coupling Effects on Wireless Power Transfer by Coil Inductance and Placement. *Hwang, H.*, +, *T-CE May 14* 203–209

**Mobile operating systems**

A Battery Lifetime Guarantee Scheme for Selective Applications in Smart Mobile Devices. *Cho, J.*, +, *T-CE February 14* 155–163

**Mobile sink**

Obstacle Avoidance Routing Scheme through Optimal Sink Movement for Home Monitoring and Mobile Robotic Consumer Devices. *Chanak, P.*, +, *T-CE November 14* 596–604

**Mode detection**

Mode-based Resource-usage Prediction for Run-time Resource Reservations of Video Components. *David, I.*, +, *T-CE August 14* 384–392

**MOS**

Video Quality Assessment in Video Streaming Services Considering User Preference for Video Content. *Rodríguez, D. Z.*, +, *T-CE August 14* 436–444

**Motion estimation**

A Cache-Aware Motion Estimation Organization for a Hardware-based H.264 Encoder. *Woo, D.*, +, *T-CE February 14* 83–91

**Mouse movement patterns**

Inferring Search Intents from Remote Control Movement Patterns: A New Content Search Method for Smart TV. *Jeong, J.-W.*, +, *T-CE February 14* 92–98

**MPEG-2**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O.*, +, *T-CE November 14* 681–689

**MR-FSK**

A Fully Integrated IEEE 802.15.4g MR-FSK SoC for Smart Utility Network Applications. *Oh, M.-K.*, +, *T-CE November 14* 580–586

**Multiband-orthogonal frequency division multiplexing (MB-OFDM)**

A Low Complexity Soft-Output Detection Algorithm for 2×2 Multiple-Input Multiple-Output Multiband-OFDM Systems Using Dual Carrier Modulation. *Park, J.*, +, *T-CE August 14* 311–319

**Multi-camera**

Video Enhancement using Spatial and Temporal Super-Resolution from a Multi-Camera System. *Quevedo, E.*, +, *T-CE August 14* 420–428

**Multi-channel audio**

Multi-Channel Audio Recording Based on Superdirective Beamforming for Portable Multimedia Recording Devices. *Kim, S. M.*, +, *T-CE August 14* 429–435

**Multi-home networking**

Software-defined Home Networking Devices for Multi-home Visual Sharing. *Jo, J.*, +, *T-CE August 14* 534–539

**Multiple-input multiple-output (MIMO)**

A Low Complexity Soft-Output Detection Algorithm for 2×2 Multiple-Input Multiple-Output Multiband-OFDM Systems Using Dual Carrier Modulation. *Park, J.*, +, *T-CE August 14* 311–319

**Multiplexing**

An Efficient Multiplexing Method of T-DMB and Cell Broadcast Service in Emergency Alert Systems. *Song, M.*, +, *T-CE November 14* 549–557

**Multi-view video coding**

Reducing 3D Video Coding Complexity through More Efficient Disparity Estimation. *Micallef, B. W.*, +, *T-CE February 14* 74–82

## N

**NAND flash memory**

CLRU: A New Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Xu, G.*, +, *T-CE February 14* 38–44

Map Cache Management Using Dual Granularity for Mobile Storage Systems. *Kim, H.*, +, *T-CE November 14* 644–652

Swap-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Xu, G.*, +, *T-CE February 14* 60–65

**NAND flash storage**

Reducing Excessive Journaling Overhead with Small-Sized NVRAM for Mobile Devices. *Kim, J.*, +, *T-CE May 14* 217–224

**Navigation**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O.*, +, *T-CE November 14* 681–689

**Near-coincident microphone recording**

Multi-Channel Audio Recording Based on Superdirective Beamforming for Portable Multimedia Recording Devices. *Kim, S. M.*, +, *T-CE August 14* 429–435

**Neighboring motion**

Frame Rate Up-Conversion Method Based on Texture Adaptive Bilateral Motion Estimation. *Kim, J.-H.*, +, *T-CE August 14* 445–452

**Network-DVR (N-DVR)**

SC-DVR: A Secure Cloud Computing Based Framework for DVR Service. *Son, J.*, +, *T-CE August 14* 368–374

**Networking flexibility**

Software-defined Home Networking Devices for Multi-home Visual Sharing. *Jo, J.*, +, *T-CE August 14* 534–539

**Networks**

An Efficient Energy Hole Alleviating Algorithm for Wireless Sensor Networks. *Xue, Y.*, +, *T-CE August 14* 347–355

Generalized Connections and Incentives for Supporting CE Devices in Live Streaming Systems. *de Sales, L. M.*, +, *T-CE November 14* 605–613

HAVS: Hybrid Adaptive Video Streaming for Mobile Devices. *Hwang, J.*, +, *T-CE May 14* 210–216

**Noise reduction**

Channel Prediction-Based Noise Reduction Algorithm for Dual-Microphone Mobile Phones. *Lee, K., +, T-CE August 14 393–401*

**Non-linear echo**

Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M., +, T-CE August 14 461–467*

**Non-volatile memory**

Differentiated Space Allocation for Wear Leveling on Phase-Change Memory-based Storage Device. *Im, S., +, T-CE February 14 45–51*

**NVRAM**

Reducing Excessive Journaling Overhead with Small-Sized NVRAM for Mobile Devices. *Kim, J., +, T-CE May 14 217–224*

**O****Obstacle detection**

A Robust Obstacle Detection Method for Robotic Vacuum Cleaners. *Kang, M.-C., +, T-CE November 14 587–595*

Obstacle Avoidance Routing Scheme through Optimal Sink Movement for Home Monitoring and Mobile Robotic Consumer Devices. *Chanak, P., +, T-CE November 14 596–604*

**Offloading**

An Experimental Analysis on Cloud-based Mobile Augmentation in Mobile Cloud Computing. *Abolfazli, S., +, T-CE February 14 146–154*

**One point calibration**

Improving the Usability of Remote Eye Gaze Tracking for Human-Device Interaction. *Choi, K.-A., +, T-CE August 14 493–498*

**Ontology**

Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M., +, T-CE August 14 402–410*

**OpenCL framework**

Design of OpenCL Framework for Embedded Multi-core Processors. *Hong, J.-H., +, T-CE May 14 233–241*

**Orthogonal Frequency Division Multiplexing (OFDM)**

A Crest Factor Reduction Scheme Based on Recursive Optimum Frequency Domain Matrix. *Varahram, P., +, T-CE May 14 179–183*

A Precoding and Detection Scheme for OFDM Based Wireless Communication System in High-Speed Environment. *Zhang, R., +, T-CE November 14 558–566*

**OS-based mobile devices**

A Linux Implementation of the Energy-based Fair Queuing Scheduling Algorithm for Battery-Limited Mobile Systems. *Wei, J., +, T-CE May 14 267–275*

**Overexposure correction**

Correction of the Overexposed Region in Digital Color Image. *Lee, D.-H., +, T-CE May 14 173–178*

**P****P2P/CDN**

Generalized Connections and Incentives for Supporting CE Devices in Live Streaming Systems. *de Sales, L. M., +, T-CE November 14 605–613*

**Packet loss**

The Impact of Network Impairment on Quality of Experience (QoE) in H.265/HEVC Video Streaming. *Nightingale, J., +, T-CE May 14 242–250*

**Page replacement algorithm**

CLRU: A New Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Xu, G., +, T-CE February 14 38–44*

Page Replacement Algorithm Based on Counting Bloom Filter for NAND Flash Memory. *Liu, J., +, T-CE November 14 636–643*

**Page sharing**

Compressed and Shared Swap to Extend Available Memory in Virtualized Consumer Electronics. *Lee, C., +, T-CE November 14 628–635*

**Parallel and pipelined architecture**

Resource-Aware Architecture Design and Implementation of Hough Transform for a Real-time Iris Boundary Detection System. *Ngo, H. T., +, T-CE August 14 485–492*

+ et al.

**Parallel processing**

Design of OpenCL Framework for Embedded Multi-core Processors. *Hong, J.-H., +, T-CE May 14 233–241*

Image Segmentation Using Linked Mean-Shift Vectors and Its Implementation on GPU. *Cho, H., +, T-CE November 14 719–727*

**Peak-to-average power ratio**

A Crest Factor Reduction Scheme Based on Recursive Optimum Frequency Domain Matrix. *Varahram, P., +, T-CE May 14 179–183*

**Periodic motion**

A Real-Time System for Detecting Indecent Videos Based on Spatiotemporal Patterns. *Jung, S., +, T-CE November 14 696–701*

**Pervasive infrastructure**

Zone-aware Service System with Nomadic Resources for Cost-Effective Pervasive Infrastructure. *Jeong, D., +, T-CE August 14 329–337*

**Phase change memory**

Differentiated Space Allocation for Wear Leveling on Phase-Change Memory-based Storage Device. *Im, S., +, T-CE February 14 45–51*

**Photovoltaic system**

PLC-Based Photovoltaic System Management for Smart Home Energy Management System. *Han, J., +, T-CE May 14 184–189*

**Picture in picture**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O., +, T-CE November 14 681–689*

**Piecewise linear approximation**

A Novel Depth Image Enhancement Method Based on the Linear Surface Model. *Kang, S.-J., +, T-CE November 14 710–718*

**Power amplifier**

A Crest Factor Reduction Scheme Based on Recursive Optimum Frequency Domain Matrix. *Varahram, P., +, T-CE May 14 179–183*

**Power consumption**

An Adaptive Remote Display Scheme to Deliver Mobile Cloud Services. *Eom, B., +, T-CE August 14 540–547*

**Power control**

An Efficient Energy Hole Alleviating Algorithm for Wireless Sensor Networks. *Xue, Y., +, T-CE August 14 347–355*

**Power efficiency**

Content-Aware Resource Allocation in OFDM Systems for Energy-Efficient Video Transmission. *Danish, E., +, T-CE August 14 320–328*

**Power estimation**

Automated Power Model Generation Method for Smartphones. *Lee, J., +, T-CE May 14 190–197*

**Power line communication**

PLC-Based Photovoltaic System Management for Smart Home Energy Management System. *Han, J., +, T-CE May 14 184–189*

Smart Home Energy Management System Including Renewable Energy Based on ZigBee and PLC. *Han, J., +, T-CE May 14 198–202*

**Power management**

Balancing Energy Use against Video Quality in Mobile Devices. *Kim, E., +, T-CE August 14 517–524*

**Power model**

Automated Power Model Generation Method for Smartphones. *Lee, J., +, T-CE May 14 190–197*

**Precoding**

A Precoding and Detection Scheme for OFDM Based Wireless Communication System in High-Speed Environment. *Zhang, R., +, T-CE November 14 558–566*

**Prefetching**

An Efficient Hot Channel Identification Scheme for IPTV Channel Navigation. *Lee, E., +, T-CE February 14 124–129*

**Preview mode**

An Efficient Hot Channel Identification Scheme for IPTV Channel Navigation. *Lee, E., +, T-CE February 14 124–129*

**Principal Component Analysis (PCA)**

Eigen Directional Bit-Planes for Robust Face Recognition. *Lei, L., +, T-CE November 14 702–709*



**Privacy preserving**

Smart Cloud Search Services: Verifiable Keyword-based Semantic Search over Encrypted Cloud Data. *Fu, Z., +, T-CE November 14 762–770*

**Probabilistic algorithms**

PT-LRU: A Probabilistic Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Cui, J., +, T-CE November 14 614–622*

**Programmable home network**

Software-defined Home Networking Devices for Multi-home Visual Sharing. *Jo, J., +, T-CE August 14 534–539*

**Progressive download**

HAVS: Hybrid Adaptive Video Streaming for Mobile Devices. *Hwang, J., +, T-CE May 14 210–216*

**Proximity analysis**

An Experimental Analysis on Cloud-based Mobile Augmentation in Mobile Cloud Computing. *Abolfazli, S., +, T-CE February 14 146–154*

**PVR**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O., +, T-CE November 14 681–689*

**Q****Quality of experience (QoE)**

Content-Aware Resource Allocation in OFDM Systems for Energy-Efficient Video Transmission. *Danish, E., +, T-CE August 14 320–328*

Video Quality Assessment in Video Streaming Services Considering User Preference for Video Content. *Rodríguez, D. Z., +, T-CE August 14 436–444*

Balancing Energy Use against Video Quality in Mobile Devices. *Kim, E., +, T-CE August 14 517–524*

The Impact of Network Impairment on Quality of Experience (QoE) in H.265/HEVC Video Streaming. *Nightingale, J., +, T-CE May 14 242–250*

**R****Ranked search**

Achieving Effective Cloud Search Services: Multi-keyword Ranked Search over Encrypted Cloud Data Supporting Synonym Query. *Fu, Z., +, T-CE February 14 164–172*

**Real-time algorithm**

Voice Activity Detection System for Smart Earphones. *Lezzoum, N., +, T-CE November 14 737–744*

**Record/playback/storage systems**

An Efficient File-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Yan, H., +, T-CE November 14 623–627*

CLRUE: A New Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Xu, G., +, T-CE February 14 38–44*

Compressed and Shared Swap to Extend Available Memory in Virtualized Consumer Electronics. *Lee, C., +, T-CE November 14 628–635*

Differentiated Space Allocation for Wear Leveling on Phase-Change Memory-based Storage Device. *Im, S., +, T-CE February 14 45–51*

Enhanced Three-factor Security Protocol for Consumer USB Mass Storage Devices. *He, D., +, T-CE February 14 30–37*

Fast Responsive Flash Translation Layer for Smart Devices. *Kwon, S. J., +, T-CE February 14 52–59*

Map Cache Management Using Dual Granularity for Mobile Storage Systems. *Kim, H., +, T-CE November 14 644–652*

Page Replacement Algorithm Based on Counting Bloom Filter for NAND Flash Memory. *Liu, J., +, T-CE November 14 636–643*

PT-LRU: A Probabilistic Page Replacement Algorithm for NAND Flash-based Consumer Electronics. *Cui, J., +, T-CE November 14 614–622*

Reducing Excessive Journaling Overhead with Small-Sized NVRAM for Mobile Devices. *Kim, J., +, T-CE May 14 217–224*

Simulation-based Optimization of Wear Leveling for Solid-State Disk Digital Video Recording. *Russ, S. H., +, T-CE August 14 363–367*

Swap-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Xu, G., +, T-CE February 14 60–65*

Track Error Detection System with Waveform Comparison Method for Super-Resolution Optical Read-Only-Memory Disc. *Nakai, K., +, T-CE August 14 356–362*

**Regulatory requirement**

A New Scheme for Compliance with TV White Space Regulations Using Wi-Fi Modules in a Cognitive Radio System. *Kang, K.-M., +, T-CE November 14 567–573*

**Reliability**

Reducing Excessive Journaling Overhead with Small-Sized NVRAM for Mobile Devices. *Kim, J., +, T-CE May 14 217–224*

**Reliable erasing**

Improving the Usability of Remote Modification and Deletion for Flash-based Storage. *Jin, R., +, T-CE November 14 662–667*

**Remote display architecture**

An Adaptive Remote Display Scheme to Deliver Mobile Cloud Services. *Eom, B., +, T-CE August 14 540–547*

**Remote eye gaze tracking**

Improving the Usability of Remote Eye Gaze Tracking for Human-Device Interaction. *Choi, K.-A., +, T-CE August 14 493–498*

**Remote target**

Trace Select: Acquiring Remote Targets with Gesture Guides Generated from Glyphs. *Maeda, A., +, T-CE August 14 453–460*

**Renewable energy**

Smart Home Energy Management System Including Renewable Energy Based on ZigBee and PLC. *Han, J., +, T-CE May 14 198–202*

**Resource sharing**

Generalized Connections and Incentives for Supporting CE Devices in Live Streaming Systems. *de Sales, L. M., +, T-CE November 14 605–613*

**Resource-usage modes**

Mode-based Resource-usage Prediction for Run-time Resource Reservations of Video Components. *David, I., +, T-CE August 14 384–392*

**RFB protocol**

An Adaptive Remote Display Scheme to Deliver Mobile Cloud Services. *Eom, B., +, T-CE August 14 540–547*

**RFID**

Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M., +, T-CE August 14 402–410*

**Robotic vacuum cleaner**

A Robust Obstacle Detection Method for Robotic Vacuum Cleaners. *Kang, M.-C., +, T-CE November 14 587–595*

**Routing**

Obstacle Avoidance Routing Scheme through Optimal Sink Movement for Home Monitoring and Mobile Robotic Consumer Devices. *Chanak, P., +, T-CE November 14 596–604*

**Routing algorithms**

An Efficient Energy Hole Alleviating Algorithm for Wireless Sensor Networks. *Xue, Y., +, T-CE August 14 347–355*

**Run-time resource prediction**

Mode-based Resource-usage Prediction for Run-time Resource Reservations of Video Components. *David, I., +, T-CE August 14 384–392*

**RVC-CAL specifications**

Energy-aware Decoder Management: A Case Study on RVC-CAL Specification based on Just-In-Time Adaptive Decoder Engine. *Ren, R., +, T-CE August 14 499–507*

**S****Scalable decoding**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O., +, T-CE November 14 681–689*

**Scalable video coding**

Balancing Energy Use against Video Quality in Mobile Devices. *Kim, E., +, T-CE August 14 517–524*

**Scheduling algorithms**

A Battery Lifetime Guarantee Scheme for Selective Applications in Smart Mobile Devices. *Cho, J., +, T-CE February 14 155–163*

**Security framework**

SC-DVR: A Secure Cloud Computing Based Framework for DVR Service. *Son, J., +, T-CE August 14 368–374*

**Security systems**

- An Encryption Approach to Secure Modification and Deletion for Flash-based Storage. *Jin, R.*, +, *T-CE November 14* 662–667
- Delegation-Based Robust Authentication Model for Wireless Roaming using Portable Communication Devices. *Kumar, P.*, +, *T-CE November 14* 668–674
- SC-DVR: A Secure Cloud Computing Based Framework for DVR Service. *Son, J.*, +, *T-CE August 14* 368–374
- Voice Authentication Embedded Solution for Secured Access Control. *Gatka, J.*, +, *T-CE November 14* 653–661

**Semantic search**

- Smart Cloud Search Services: Verifiable Keyword-based Semantic Search over Encrypted Cloud Data. *Fu, Z.*, +, *T-CE November 14* 762–770

**Semantic web**

- Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M.*, +, *T-CE August 14* 402–410

**Sensitivity**

- An Enhanced Fall Detection System for Elderly Person Monitoring using Consumer Home Networks. *Wang, J.*, +, *T-CE February 14* 23–29

**Sensor fusion**

- Hand Gesture Based Remote Control System Using Infrared Sensors and a Camera. *Erden, F.*, +, *T-CE November 14* 675–680

**Serialized data layout**

- High Performance Indexing for Massive Audio Fingerprint Data. *Yu, C.*, +, *T-CE November 14* 690–695

**Service coverage**

- A New Scheme for Compliance with TV White Space Regulations Using Wi-Fi Modules in a Cognitive Radio System. *Kang, K.-M.*, +, *T-CE November 14* 567–573

**Short-time spectral amplitude**

- Double-talk Robust Acoustic Echo Cancellation for CD-quality Hands-free Videoconferencing System. *Fukui, M.*, +, *T-CE August 14* 468–475

**Shoulder-surfing**

- Drag-and-Type: A New Method for Typing with Virtual Keyboards on Small Touchscreens. *Kwon, T.*, +, *T-CE February 14* 99–106

**Signal processing**

- A Cache-Aware Motion Estimation Organization for a Hardware-based H.264 Encoder. *Woo, D.*, +, *T-CE February 14* 83–91
- A Computation and Energy Reduction Technique for HEVC Intra Mode Decision. *Ozcan, E.*, +, *T-CE November 14* 745–753
- A Low Energy HEVC Inverse Transform Hardware. *Kalali, E.*, +, *T-CE November 14* 754–761
- A Novel Depth Image Enhancement Method Based on the Linear Surface Model. *Kang, S.-J.*, +, *T-CE November 14* 710–718
- A Real-Time System for Detecting Indecent Videos Based on Spatiotemporal Patterns. *Jung, S.*, +, *T-CE November 14* 696–701
- Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M.*, +, *T-CE August 14* 461–467
- An Efficient Hot Channel Identification Scheme for IPTV Channel Navigation. *Lee, E.*, +, *T-CE February 14* 124–129
- Automatic User State Recognition for Hand Gesture Based Low-Cost Television Control System. *Lian, S.*, +, *T-CE February 14* 107–115
- Balancing Energy Use against Video Quality in Mobile Devices. *Kim, E.*, +, *T-CE August 14* 517–524
- Bi-Predictive Motion Estimation for HEVC on a Graphics Processing Unit (GPU). *Radicke, S.*, +, *T-CE November 14* 728–736
- Channel Mapping using Bidirectional Long Short-Term Memory for Dereverberation in Hands-Free Voice Controlled Devices. *Zhang, Z.*, +, *T-CE August 14* 525–533
- Channel Prediction-Based Noise Reduction Algorithm for Dual-Microphone Mobile Phones. *Lee, K.*, +, *T-CE August 14* 393–401
- Complexity Reduction in Karhunen-Loève Transform based Speech Coder for Voice Transmission. *Ju, H.*, +, *T-CE February 14* 130–136
- Design of OpenCL Framework for Embedded Multi-core Processors. *Hong, J.-H.*, +, *T-CE May 14* 233–241
- Double-talk Robust Acoustic Echo Cancellation for CD-quality Hands-free Videoconferencing System. *Fukui, M.*, +, *T-CE August 14* 468–475
- Drag-and-Type: A New Method for Typing with Virtual Keyboards on Small Touchscreens. *Kwon, T.*, +, *T-CE February 14* 99–106

Edge-adaptive Spatial Video De-interlacing Algorithms Based on Fuzzy Logic. *Brox, P.*, +, *T-CE August 14* 375–383

- Eigen Directional Bit-Planes for Robust Face Recognition. *Lei, L.*, +, *T-CE November 14* 702–709
- Energy-aware Decoder Management: A Case Study on RVC-CAL Specification based on Just-In-Time Adaptive Decoder Engine. *Ren, R.*, +, *T-CE August 14* 499–507
- FPGA Implementation of a Full HD Real-time HEVC Main Profile Decoder. *Engelhardt, D.*, +, *T-CE August 14* 476–484
- Frame Rate Up-Conversion Method Based on Texture Adaptive Bilateral Motion Estimation. *Kim, J.-H.*, +, *T-CE August 14* 445–452
- Hand Gesture Based Remote Control System Using Infrared Sensors and a Camera. *Erden, F.*, +, *T-CE November 14* 675–680
- Hardware Implementation of a Full HD Real-time Disparity Estimation Algorithm. *Werner, M.*, +, *T-CE February 14* 66–73
- High Performance Indexing for Massive Audio Fingerprint Data. *Yu, C.*, +, *T-CE November 14* 690–695
- Image Segmentation Using Linked Mean-Shift Vectors and Its Implementation on GPU. *Cho, H.*, +, *T-CE November 14* 719–727
- Improving the Usability of Remote Eye Gaze Tracking for Human-Device Interaction. *Choi, K.-A.*, +, *T-CE August 14* 493–498
- Inferring Search Intents from Remote Control Movement Patterns: A New Content Search Method for Smart TV. *Jeong, J.-W.*, +, *T-CE February 14* 92–98
- Mode-based Resource-usage Prediction for Run-time Resource Reservations of Video Components. *David, I.*, +, *T-CE August 14* 384–392
- Modified Subspace Method Based on Convex Model for Underdetermined Blind Speech Separation. *Zhang, L.*, +, *T-CE May 14* 225–232
- Multi-Channel Audio Recording Based on Superdirective Beamforming for Portable Multimedia Recording Devices. *Kim, S. M.*, +, *T-CE August 14* 429–435
- Multilingual Speech-to-Speech Translation System for Mobile Consumer Devices. *Yun, S.*, +, *T-CE August 14* 508–516
- Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M.*, +, *T-CE August 14* 402–410
- PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O.*, +, *T-CE November 14* 681–689
- Reducing 3D Video Coding Complexity through More Efficient Disparity Estimation. *Micallef, B. W.*, +, *T-CE February 14* 74–82
- Resource-Aware Architecture Design and Implementation of Hough Transform for a Real-time Iris Boundary Detection System. *Ngo, H. T.*, +, *T-CE August 14* 485–492
- Stereo Upmix-based Binaural Auralization for Mobile Devices. *Lee, T.*, +, *T-CE August 14* 411–419
- Subjective Evaluation of HEVC and AVC/H.264 in Mobile Environments. *Garcia, R.*, +, *T-CE February 14* 116–123
- The Impact of Network Impairment on Quality of Experience (QoE) in H.265/HEVC Video Streaming. *Nightingale, J.*, +, *T-CE May 14* 242–250
- Three Dimensional Moving Pictures with a Single Imager and Microfluidic Lens. *Liu, C.*, +, *T-CE May 14* 258–266
- Trace Select: Acquiring Remote Targets with Gesture Guides Generated from Glyphs. *Maeda, A.*, +, *T-CE August 14* 453–460
- Video Enhancement using Spatial and Temporal Super-Resolution from a Multi-Camera System. *Quevedo, E.*, +, *T-CE August 14* 420–428
- Video Quality Assessment in Video Streaming Services Considering User Preference for Video Content. *Rodríguez, D. Z.*, +, *T-CE August 14* 436–444
- Visual Voice Activity Detection via Chaos Based Lip Motion Measure Robust under Illumination Changes. *Song, T.*, +, *T-CE May 14* 251–257
- Voice Activity Detection System for Smart Earphones. *Lezzoum, N.*, +, *T-CE November 14* 737–744

**Smart devices**

- Fast Responsive Flash Translation Layer for Smart Devices. *Kwon, S. J.*, +, *T-CE February 14* 52–59

**Smart earphones**

- Voice Activity Detection System for Smart Earphones. *Lezzoum, N.*, +, *T-CE November 14* 737–744

**Smart home**

- Novel RFID and Ontology based Home Localization System for Misplaced Objects. *Huynh, S. M.*, +, *T-CE August 14* 402–410

**Smart home service**

Zone-aware Service System with Nomadic Resources for Cost-Effective Pervasive Infrastructure. *Jeong, D.*, +, *T-CE August 14* 329–337

**Smart mobile device**

An Uneven-Dual-Core Processor Based Mobile Platform for Facilitating the Collaboration among Various Embedded Electronic Devices. *Liu, L.*, +, *T-CE February 14* 137–145

**Smart TV**

Inferring Search Intents from Remote Control Movement Patterns: A New Content Search Method for Smart TV. *Jeong, J.-W.*, +, *T-CE February 14* 92–98

Trace Select: Acquiring Remote Targets with Gesture Guides Generated from Glyphs. *Maeda, A.*, +, *T-CE August 14* 453–460

**Smart utility network**

A Fully Integrated IEEE 802.15.4g MR-FSK SoC for Smart Utility Network Applications. *Oh, M.-K.*, +, *T-CE November 14* 580–586

**Smartphone**

Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M.*, +, *T-CE August 14* 461–467

Automated Power Model Generation Method for Smartphones. *Lee, J.*, +, *T-CE May 14* 190–197

Drag-and-Type: A New Method for Typing with Virtual Keyboards on Small Touchscreens. *Kwon, T.*, +, *T-CE February 14* 99–106

Selective Memory Deduplication for Cost Efficiency in Mobile Smart Devices. *Kim, S.-H.*, +, *T-CE May 14* 276–284

Touch Pointer: Rethink Point-and-Click for Accurate Indirect Touch Interactions on Small Touchscreens. *Kwon, T.*, +, *T-CE August 14* 285–293

A Battery Lifetime Guarantee Scheme for Selective Applications in Smart Mobile Devices. *Cho, J.*, +, *T-CE February 14* 155–163

Balancing Energy Use against Video Quality in Mobile Devices. *Kim, E.*, +, *T-CE August 14* 517–524

**SoC**

A Fully Integrated IEEE 802.15.4g MR-FSK SoC for Smart Utility Network Applications. *Oh, M.-K.*, +, *T-CE November 14* 580–586

**Soft-output detection**

A Low Complexity Soft-Output Detection Algorithm for 2×2 Multiple-Input Multiple-Output Multiband-OFDM Systems Using Dual Carrier Modulation. *Park, J.*, +, *T-CE August 14* 311–319

**Software defined networking**

Software-defined Home Networking Devices for Multi-home Visual Sharing. *Jo, J.*, +, *T-CE August 14* 534–539

**Software for consumer products**

A Battery Lifetime Guarantee Scheme for Selective Applications in Smart Mobile Devices. *Cho, J.*, +, *T-CE February 14* 155–163

A Linux Implementation of the Energy-based Fair Queuing Scheduling Algorithm for Battery-Limited Mobile Systems. *Wei, J.*, +, *T-CE May 14* 267–275

Achieving Effective Cloud Search Services: Multi-keyword Ranked Search over Encrypted Cloud Data Supporting Synonym Query. *Fu, Z.*, +, *T-CE February 14* 164–172

An Adaptive Remote Display Scheme to Deliver Mobile Cloud Services. *Eom, B.*, +, *T-CE August 14* 540–547

An Experimental Analysis on Cloud-based Mobile Augmentation in Mobile Cloud Computing. *Abolfazli, S.*, +, *T-CE February 14* 146–154

An Uneven-Dual-Core Processor Based Mobile Platform for Facilitating the Collaboration among Various Embedded Electronic Devices. *Liu, L.*, +, *T-CE February 14* 137–145

Selective Memory Deduplication for Cost Efficiency in Mobile Smart Devices. *Kim, S.-H.*, +, *T-CE May 14* 276–284

Smart Cloud Search Services: Verifiable Keyword-based Semantic Search over Encrypted Cloud Data. *Fu, Z.*, +, *T-CE November 14* 762–770

Software-defined Home Networking Devices for Multi-home Visual Sharing. *Jo, J.*, +, *T-CE August 14* 534–539

**Solid state disks**

Simulation-based Optimization of Wear Leveling for Solid-State Disk Digital Video Recording. *Russ, S. H.*, +, *T-CE August 14* 363–367

**Spatiotemporal motion trajectory**

A Real-Time System for Detecting Indecent Videos Based on Spatiotemporal Patterns. *Jung, S.*, +, *T-CE November 14* 696–701

**Spatiotemporal pattern**

A Real-Time System for Detecting Indecent Videos Based on Spatiotemporal Patterns. *Jung, S.*, +, *T-CE November 14* 696–701

**Speaker recognition**

Voice Authentication Embedded Solution for Secured Access Control. *Gatka, J.*, +, *T-CE November 14* 653–661

**Speech coding**

Complexity Reduction in Karhunen-Loève Transform based Speech Coder for Voice Transmission. *Ju, H.*, +, *T-CE February 14* 130–136

**Speech enhancement**

Modified Subspace Method Based on Convex Model for Underdetermined Blind Speech Separation. *Zhang, L.*, +, *T-CE May 14* 225–232

**Speech recognition**

Multilingual Speech-to-Speech Translation System for Mobile Consumer Devices. *Yun, S.*, +, *T-CE August 14* 508–516

**Speech separation**

Modified Subspace Method Based on Convex Model for Underdetermined Blind Speech Separation. *Zhang, L.*, +, *T-CE May 14* 225–232

**Speech-to-speech translation system**

Multilingual Speech-to-Speech Translation System for Mobile Consumer Devices. *Yun, S.*, +, *T-CE August 14* 508–516

**Spware**

Drag-and-Type: A New Method for Typing with Virtual Keyboards on Small Touchscreens. *Kwon, T.*, +, *T-CE February 14* 99–106

**Stereo matching**

Hardware Implementation of a Full HD Real-time Disparity Estimation Algorithm. *Werner, M.*, +, *T-CE February 14* 66–73

**Stereoscopic display**

Visual Comfort Improvement in Stereoscopic 3D Displays Using Perceptually Plausible Assessment Metric of Visual Comfort. *Jung, Y. J.*, +, *T-CE February 14* 1–9

**Stereo-to-binaural conversion**

Stereo Upmix-based Binaural Auralization for Mobile Devices. *Lee, T.*, +, *T-CE August 14* 411–419

**Stereo-to-multichannel upmix**

Stereo Upmix-based Binaural Auralization for Mobile Devices. *Lee, T.*, +, *T-CE August 14* 411–419

**Storage class memory**

Differentiated Space Allocation for Wear Leveling on Phase-Change Memory-based Storage Device. *Im, S.*, +, *T-CE February 14* 45–51

**Storage device**

Swap-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Xu, G.*, +, *T-CE February 14* 60–65

**Structured-light RGB-D camera**

A Novel Depth Image Enhancement Method Based on the Linear Surface Model. *Kang, S.-J.*, +, *T-CE November 14* 710–718

**Subcarrier**

Content-Aware Resource Allocation in OFDM Systems for Energy-Efficient Video Transmission. *Danish, E.*, +, *T-CE August 14* 320–328

**Subjective evaluation**

Subjective Evaluation of HEVC and AVC/H.264 in Mobile Environments. *García, R.*, +, *T-CE February 14* 116–123

The Impact of Network Impairment on Quality of Experience (QoE) in H.265/HEVC Video Streaming. *Nightingale, J.*, +, *T-CE May 14* 242–250

**Subjective test**

Video Quality Assessment in Video Streaming Services Considering User Preference for Video Content. *Rodríguez, D. Z.*, +, *T-CE August 14* 436–444

**Subpaging**

Page Replacement Algorithm Based on Counting Bloom Filter for NAND Flash Memory. *Liu, J.*, +, *T-CE November 14* 636–643

**Subspace projection**

Modified Subspace Method Based on Convex Model for Underdetermined Blind Speech Separation. *Zhang, L.*, +, *T-CE May 14* 225–232

**Superdirective beamforming**

Multi-Channel Audio Recording Based on Superdirective Beamforming for Portable Multimedia Recording Devices. *Kim, S. M.*, +, *T-CE August 14* 429–435

**Super-resolution**

Video Enhancement using Spatial and Temporal Super-Resolution from a Multi-Camera System. *Quevedo, E.*, +, *T-CE August 14* 420–428

**Super-resolution optical disc**

Track Error Detection System with Waveform Comparison Method for Super-Resolution Optical Read-Only-Memory Disc. *Nakai, K.*, +, *T-CE August 14* 356–362

**Swap**

Compressed and Shared Swap to Extend Available Memory in Virtualized Consumer Electronics. *Lee, C.*, +, *T-CE November 14* 628–635

**T****Tablet**

Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M.*, +, *T-CE August 14* 461–467

**T-DMB**

An Efficient Multiplexing Method of T-DMB and Cell Broadcast Service in Emergency Alert Systems. *Song, M.*, +, *T-CE November 14* 549–557  
Design and Implementation of a Novel Emergency Wake-up Alert System within a Conventional T-DMB Service Network. *Kim, G.*, +, *T-CE November 14* 574–579

**Texture activity**

Frame Rate Up-Conversion Method Based on Texture Adaptive Bilateral Motion Estimation. *Kim, J.-H.*, +, *T-CE August 14* 445–452

**Time-constraint compliance**

A Linux Implementation of the Energy-based Fair Queuing Scheduling Algorithm for Battery-Limited Mobile Systems. *Wei, J.*, +, *T-CE May 14* 267–275

**Time-selective channel**

A Precoding and Detection Scheme for OFDM Based Wireless Communication System in High-Speed Environment. *Zhang, R.*, +, *T-CE November 14* 558–566

**Touch pointer**

Touch Pointer: Rethink Point-and-Click for Accurate Indirect Touch Interactions on Small Touchscreens. *Kwon, T.*, +, *T-CE August 14* 285–293

**Touchscreen**

Drag-and-Type: A New Method for Typing with Virtual Keyboards on Small Touchscreens. *Kwon, T.*, +, *T-CE February 14* 99–106  
Touch Pointer: Rethink Point-and-Click for Accurate Indirect Touch Interactions on Small Touchscreens. *Kwon, T.*, +, *T-CE August 14* 285–293

**Track error**

Track Error Detection System with Waveform Comparison Method for Super-Resolution Optical Read-Only-Memory Disc. *Nakai, K.*, +, *T-CE August 14* 356–362

**Trick play**

PVR System Design of Advanced Video Navigation Reinforced with Audible Sound. *Eerenberg, O.*, +, *T-CE November 14* 681–689

**TV band device**

A New Scheme for Compliance with TV White Space Regulations Using Wi-Fi Modules in a Cognitive Radio System. *Kang, K.-M.*, +, *T-CE November 14* 567–573

**TV control**

Automatic User State Recognition for Hand Gesture Based Low-Cost Television Control System. *Lian, S.*, +, *T-CE February 14* 107–115

**TV white spaces**

Analyzing the Availability of TV White Spaces in Dynamic Broadcast. *Palka, P.*, +, *T-CE August 14* 302–310

**Two-dimensional Gaussian modeling**

Correction of the Overexposed Region in Digital Color Image. *Lee, D.-H.*, +, *T-CE May 14* 173–178

+ *et al.*

**U****Unlinkability**

Delegation-Based Robust Authentication Model for Wireless Roaming using Portable Communication Devices. *Kumar, P.*, +, *T-CE November 14* 668–674

**USB**

Enhanced Three-factor Security Protocol for Consumer USB Mass Storage Devices. *He, D.*, +, *T-CE February 14* 30–37

**User intent**

Inferring Search Intents from Remote Control Movement Patterns: A New Content Search Method for Smart TV. *Jeong, J.-W.*, +, *T-CE February 14* 92–98

**User state recognition**

Automatic User State Recognition for Hand Gesture Based Low-Cost Television Control System. *Lian, S.*, +, *T-CE February 14* 107–115

**V****Verifiable search**

Smart Cloud Search Services: Verifiable Keyword-based Semantic Search over Encrypted Cloud Data. *Fu, Z.*, +, *T-CE November 14* 762–770

**Video components**

Mode-based Resource-usage Prediction for Run-time Resource Reservations of Video Components. *David, I.*, +, *T-CE August 14* 384–392

**Video decoder**

FPGA Implementation of a Full HD Real-time HEVC Main Profile Decoder. *Engelhardt, D.*, +, *T-CE August 14* 476–484

**Video enhancement**

Video Enhancement using Spatial and Temporal Super-Resolution from a Multi-Camera System. *Quevedo, E.*, +, *T-CE August 14* 420–428

**Video freeze**

HAVS: Hybrid Adaptive Video Streaming for Mobile Devices. *Hwang, J.*, +, *T-CE May 14* 210–216

**Video quality**

Balancing Energy Use against Video Quality in Mobile Devices. *Kim, E.*, +, *T-CE August 14* 517–524  
Content-Aware Resource Allocation in OFDM Systems for Energy-Efficient Video Transmission. *Danish, E.*, +, *T-CE August 14* 320–328

**Video quality metrics**

Video Quality Assessment in Video Streaming Services Considering User Preference for Video Content. *Rodríguez, D. Z.*, +, *T-CE August 14* 436–444

**Video signal processing**

Edge-adaptive Spatial Video De-interlacing Algorithms Based on Fuzzy Logic. *Brox, P.*, +, *T-CE August 14* 375–383

**Video streaming**

Video Quality Assessment in Video Streaming Services Considering User Preference for Video Content. *Rodríguez, D. Z.*, +, *T-CE August 14* 436–444

**Virtual keyboard**

Drag-and-Type: A New Method for Typing with Virtual Keyboards on Small Touchscreens. *Kwon, T.*, +, *T-CE February 14* 99–106

**Virtual network computing**

An Adaptive Remote Display Scheme to Deliver Mobile Cloud Services. *Eom, B.*, +, *T-CE August 14* 540–547

**Visual comfort assessment**

Visual Comfort Improvement in Stereoscopic 3D Displays Using Perceptually Plausible Assessment Metric of Visual Comfort. *Jung, Y. J.*, +, *T-CE February 14* 1–9

**Visual comfort improvement**

Visual Comfort Improvement in Stereoscopic 3D Displays Using Perceptually Plausible Assessment Metric of Visual Comfort. *Jung, Y. J.*, +, *T-CE February 14* 1–9

**Visual discomfort**

Visual Comfort Improvement in Stereoscopic 3D Displays Using Perceptually Plausible Assessment Metric of Visual Comfort. *Jung, Y. J.*, +, *T-CE February 14* 1–9

**Voice activity detection**

Channel Prediction-Based Noise Reduction Algorithm for Dual-Microphone Mobile Phones. *Lee, K.*, +, *T-CE August 14* 393–401  
 Visual Voice Activity Detection via Chaos Based Lip Motion Measure Robust under Illumination Changes. *Song, T.*, +, *T-CE May 14* 251–257  
 Voice Activity Detection System for Smart Earphones. *Lezzoum, N.*, +, *T-CE November 14* 737–744

**VoIP hands-free application**

Acoustic Echo Canceller Software for VoIP Hands-free Application on Smartphone and Tablet Devices. *Fukui, M.*, +, *T-CE August 14* 461–467

**W****Wake-up**

Design and Implementation of a Novel Emergency Wake-up Alert System within a Conventional T-DMB Service Network. *Kim, G.*, +, *T-CE November 14* 574–579

**Wavelet transform**

Hand Gesture Based Remote Control System Using Infrared Sensors and a Camera. *Erden, F.*, +, *T-CE November 14* 675–680

**Wear leveling**

An Efficient File-aware Garbage Collection Algorithm for NAND Flash-based Consumer Electronics. *Yan, H.*, +, *T-CE November 14* 623–627  
 Simulation-based Optimization of Wear Leveling for Solid-State Disk Digital Video Recording. *Russ, S. H.*, +, *T-CE August 14* 363–367  
 Differentiated Space Allocation for Wear Leveling on Phase-Change Memory-based Storage Device. *Im, S.*, +, *T-CE February 14* 45–51

**Wide dynamic range (WDR)**

Flicker Removal for CMOS Wide Dynamic Range Imaging Based on Alternating Current Component Analysis. *Yoo, Y.*, +, *T-CE August 14* 294–301

**Wide-angle lens**

Lens Distortion Correction and Enhancement Based on Local

Self-similarity for High-quality Consumer Imaging Systems. *Kim, D.*, +, *T-CE February 14* 18–22

**Wiener filtering**

Double-talk Robust Acoustic Echo Cancellation for CD-quality Hands-free Videoconferencing System. *Fukui, M.*, +, *T-CE August 14* 468–475

**Wi-Fi**

A New Scheme for Compliance with TV White Space Regulations Using Wi-Fi Modules in a Cognitive Radio System. *Kang, K.-M.*, +, *T-CE November 14* 567–573

**Winner-take-all (WTA) hash method**

Hand Gesture Based Remote Control System Using Infrared Sensors and a Camera. *Erden, F.*, +, *T-CE November 14* 675–680

**Wireless communication networks**

Analyzing the Availability of TV White Spaces in Dynamic Broadcast. *Palka, P.*, +, *T-CE August 14* 302–310

**Wireless power transfer**

An Analysis of Magnetic Resonance Coupling Effects on Wireless Power Transfer by Coil Inductance and Placement. *Hwang, H.*, +, *T-CE May 14* 203–209

**Wireless sensor networks**

An Efficient Energy Hole Alleviating Algorithm for Wireless Sensor Networks. *Xue, Y.*, +, *T-CE August 14* 347–355  
 An Enhanced Fall Detection System for Elderly Person Monitoring using Consumer Home Networks. *Wang, J.*, +, *T-CE February 14* 23–29

**Z****Zigbee**

Obstacle Avoidance Routing Scheme through Optimal Sink Movement for Home Monitoring and Mobile Robotic Consumer Devices. *Chanak, P.*, +, *T-CE November 14* 596–604  
 Smart Home Energy Management System Including Renewable Energy Based on ZigBee and PLC. *Han, J.*, +, *T-CE May 14* 198–202

**Zone-aware service system**

Zone-aware Service System with Nomadic Resources for Cost-Effective Pervasive Infrastructure. *Jeong, D.*, +, *T-CE August 14* 329–337