Technical Program Overview

Wednesday, October 30, 2013

10:20 - 12:00

OS.1-IVM.1: Perceptual Considerations and Models in Visual Signal Processing
245 Adaptive Picture-in-Picture Technology Based on Visual Saliency
Shijian Lu, Byung Uck Kim, Nicolas Lomenie, Joo-Hwee Lim
286 Effect of Content on Visual Comfort in Viewing Stereoscopic Videos
Bo Chang, FuZhen Yang, Shuai Wan
350 No-Reference IPTV Video Quality Modeling Based on Contextual Visual Distortion Estimation
Ning Liao, Zhibo Chen
369 Ego Motion Induced Visual Discomfort of Stereoscopic Video
Jongyoo Kim, Kwanghyun Lee, Taegeun Oh, Sanghoon Lee
375 Visual-Saliency-Enhanced Image Quality Assessment Indices
Joe Yuchieh Lin, Tsung Jung Liu, Weisi Lin, C.-C. Jay Kuo

OS.2-IVM.2: Intelligent Visual/Image Computation
41 Inverse Halftoning Based on Edge Detection Classification
Qi-Xuan Ong, Wen-Liang Hsue
141 Virtual-View-Based Stereo Video Composition
Chun-Kai Chang, Hsueh-Ming Hang
195 Video Retargeting Using Non-Homogeneous Scaling and Cropping
Jin-Jang Leou, Wen-Yu Yo, Han-Hui Hsiao
246 Real-Time Aerial Targets Detection Algorithm Based Background Subtraction
Zhenrong Wu
327 Representation of the Player Action in Sport Videos
Zhang Jingwen, Qiu Jiankang, Wang Xiangdong, Lifang Wu
338 A New Fast Adopted Image Matching Approach with Arbitrary Rotation
Guangmin Sun, Zibo Li, Yufeng Jin, Junling Sun, Kun Zheng, Dequn Zhao

OS.3-IVM.3: Technologies for Security and Safety and Those Applications
243 Local Consistency Preserved Coupled Mappings for Low-Resolution Face Recognition
Weifeng Li, Zuodong Yang, Yong Wu, Yicong Zhou, Qingmin Liao, Yinyin Jiang, Longbiao Wang
295 Generation of All-Focus Images and Depth-Adjustable Images Based on Pixel Blurriness
Yi-Chong Zeng
316 Image Restoration Using Similar Region Search and Digital Watermark
Kazuki Yamato, Madoka Hasegawa, Kazuma Shinoda, Shigeo Kato, Yuichi Tanaka
342 Phase-Based Image Matching and Its Application to Biometric Recognition
Koichi Ito, Takanori Aoki
371 Compressing JPEG Compressed Image Using Reversible Data Hiding Technique
Kang Sang-Ug, Qu Xiaochao, Hyoong Joong Kim
379 A Blind Lossless Information Embedding Scheme Based on Generalized Histogram Shifting
Masaaki Fujiyoshi

OS.4-SLA.1: Signal and Information Processing for Affective Computing
255 Combining Emotional History through Multimodal Fusion Methods
LinLin Zhao, Jianhua Tao, Minghao Yang
276 Affective-Cognitive Dialogue Act Detection in an Error-Aware Spoken Dialogue System
Wei-Bin Liang, Chung-Hsien Wu, Meng-Hsiu Sheng
277 BFI-Based Speaker Personality Perception Using Acoustic-Prosodic Features
Chia-Jui Liu, Chung-Hsien Wu, Yu-Hsien Chiu
293 Feature Space Dimension Reduction in Speech Emotion Recognition Using Support Vector Machine
Bo-Chang Chiou, Chia-Ping Chen
374 Evaluation on Text Categorization for Mathematics Application Questions
Liang-Chih Yu, Hsiao-Liang Hu, Wei-Hua Lin
383 Comparing Feature Dimension Reduction Algorithms for GMM-SVM Based Speech Emotion Recognition
Jianbo Jiang, Zhiyong Wu, Mingxing Xu, Jia Jia, Lianhong Cai
OS.5-SLA.2: Machine Learning for Music Information Retrieval
322 Dictionary Learning with Extreme Sparsity and Sparse Coding for Genre Classification
Ping-Keng Jao, Li Su, Yi-Hsuan Yang
325 Enhance Popular Music Emotion Regression by Importing Structure Information
Xing Wang, Xiaou Chen, Deshun Yang, Yuqian Wu
354 These Words Are Music to My Ears: Recognizing Music Emotion from Lyrics Using AdaBoost
Dan Su, Pascale Fung
355 Automatic Transcription of MIDI Signals Based on Probabilistic Model of Two-Dimensional Rhythm Tree Structure Representation
Masato Tsuchiya, Kazuki Ochiai, Hirokazu Kameoka, Shigeki Sagayama
362 Identification of Live or Studio Versions of a Song via Supervised Learning
Nicolas Auguin, Shilei Huang, Pascale Fung

OS.6-SPS.1: Algorithm and Architecture for Orange Computing
215 Classification of Children with Voice Impairments Using Deep Neural Networks
Chien-Lin Huang, Chiori Hori
274 Numerical Calculation of the Head-Related Transfer Function with Chinese Dummy Head
Ling Tang, Zhonghua Fu, Lei Xie
343 Framework of Ubiquitous Healthcare System Based on Cloud Computing for Elderly Living
Yang Yen Ou, Po Yi Shih, Jhing-Fa Wang, Shao-Hsien Shih, Ta-Wen Kuam, Yu-Hao Chin
349 Graph Based Orange Computing Architecture for Cyber-Physical Being
Anand Paul, Yu-Hao Chin
357 Instrumental Activities of Daily Living (IADL) Evaluation System Based on EEG Singal Feature Analisys
Yang Yen Ou, Po Yi Shih, Jhing-Fa Wang, Chen Bo Wei, Chan Sheng Chung, Lin Po Chuan

OS.7-BioSiPS.1: Data-Driven Biomedical Signal Processing and Machine Learning Methods
127 Sound Quality Indicating System Using EEG and GMDH-Type Neural Network
Kimonobu Nishimura, Yasue Mitsukura
233 Feature Extraction of the P300 Signal Using Bayesian Delay Time Estimation
Reo Togashi, Yoshikazu Washizawa
288 QEEG Index for Early Detection of Imbalanced Conditions during Aerobatics
Kittichai Tharawadeepimuk, Yodchanan Wongswat
318 Band Selection by Criterion of Common Spatial Patterns for Motor Imagery Based Brain Machine Interfaces
Hiroshi Higashi, Toshihisa Tanaka
365 Single Trial BCI Classification Accuracy Improvement for the Novel Virtual Sound Motion Based Spatial Auditory Paradigm
Yohann Lelievre, Yoshikazu Washizawa, Tomasz Rutkowski

OS.8-SIPTM.1: Signal and Information Processing Theory and Methods
28 On Integer-Valued Zero Autocorrelation Sequences
Soo-Chang Pei, Kuo-Wei Chang
39 On Ergodic Secrecy Capacity of Fast Fading MIMOME Wiretap Channel with Statistical CSIT
Shih-Chun Lin
81 A Preprocessing Method to Increase High Frequency Response of a Parametric Loudspeaker
Chuang Shi, Woon-Seng Gan
164 The Split-Radix Fast Fourier Transforms with Radix-4 Butterfly Units
Sian-Jheng Lin, Wei-Ho Chung
186 L1-Norm-Based Coding for Lattice Vector Quantization
Wisarn Patchoo, Thomas Fischer, Curtis Maddex
337 Generalized Polynomial Wigner Spectrogram for High-Resolution Time-Frequency Analysis
Jian-Jiun Ding, Soo-Chang Pei, Yi-Fan Chang
OS.9-IVM.4: Multimedia Signal Processing and Applications

34 PicWall: Photo Collage On-the-Fly
Zhipeng Wu, Kiyoharu Aizawa

52 A Capture-to-Display Delay Measurement System for Visual Communication Applications
Chao Wei, Haoming Chen, Mingli Song, Ming-Ting Sun, Kevin Lau

54 A Supporting System of Chorus Singing for Visually Impaired Persons Using Depth Image Sensor
Noriyuki Kawarazaki

108 Tag Suggestion and Localization for Images by Bipartite Graph Matching
Wei-Ta Chu, Cheng-Jung Li, Jen-Yu Yu

280 Automatic Facial Expression Recognition for Affective Computing Based on Bag of Distances
Fu-Song Hsu, Wei-Yang Lin, Tzu-Wei Tsai

359 Impact Analysis of Temporal Resolution in Thermal Signal Reconstruction via Infrared Imaging
Wen-Chin Yang, You-Gang Yang, Yun-Chung Liu, Wei-Min Liu

361 Negative-Voting and Class Ranking Based on Local Discriminant Embedding for Image Retrieval
Mee-Huei Lin, Chen-Kuo Chiang, Shang-Hong Lai

OS.10-IVM.5: Image and Video Coding

45 Fast Coding Unit Decision Algorithm for HEVC
Wei-Jhe Hsu, Hsueh-Ming Hang

106 Error Equalization for High Quality LDR Images in Backward Compatible HDR Image Coding
Masahiro Iwahashi, Hitoshi Kiya

111 Fast Mode Decision for H.264/AVC Based on Local Spatio-Temporal Coherency
Wei Zhang, Yan Huang, Jingliang Peng

129 Depth Video Coding Based on Motion Information Sharing Prediction for Mixed Resolution 3D Video
Kwan-Jung Oh, Ho-Cheon Wey

142 Improved Sample Adaptive Offset for HEVC
Hong Zhang, Oscar C AU, Yongfang Shi, Wenjing Zhu, Vinit Jakhetiya, Luheng Jia

155 Probability-Based Mode Decision Algorithm for Scalable Video Coding
Yu-Che Wey, Mei-Juan Chen, Chia-Hung Yeh

OS.11-SLA.3: Recent Challenges and Applications on Active Noise Control

36 An Adaptive Signal Processing System for Active Control of Sound in Remote Locations
Iman Tabatabaei Ardekani, Waleed Abdulla

48 Adaptive Active Noise Control in Free Space
Iman Tabatabaei Ardekani, Waleed Abdulla

130 An Active Unpleasantness Control System for Indoor Noise Based on Auditory Masking
Daisuke Ikekufi, Masato Nakayama, Takanobu Nishiura, Yoichi Yamashita

204 Splitting Frequency Components of Error Signal in Narrowband Active Noise Control System Design
Jen-Yu Li, Sen M. Kuo, Cheng-Yuan Chang

228 Feasibility Study of Voice Shutter
Masaharu Nishimura

244 Head-Mounted Active Noise Control System to Achieve Speech Communication
Nobuhiro Miyazaki, Yoshinobu Kajikawa

299 Step Size Bound for Narrowband Feedback Active Noise Control
Woon-Seng Gan

OS.12-SLA.4: Spoken Term Detection

43 Entropy-Based False Detection Filtering in Spoken Term Detection Tasks
Satoshi Natori, Yuto Furuya, Hiromitsu Nishizaki, Yoshihiro Sekiguchi

68 Robust/Fast Out-of-Vocabulary Spoken Term Detection by N-Gram Index with Exact Distance through Text/Speech Input
Nagisa Sakamoto, Seiichi Nakagawa

117 High Priority in Highly Ranked Documents in Spoken Term Detection
Konno Kazuma, Itoh Yoshiaki, Kazunori Kojima, Ishigame Masaaki, Tanaka Kazuyo, Shi-Wook Lee

137 Open Vocabulary Spoken Content Retrieval by Front-Ending with Spoken Term Detection
Tomoko Takigami, Tomoyosi Akiba

159 Evaluation of the Usefulness of Spoken Term Detection in an Electronic Note-Taking Support System
Chifuuyu Yonekura, Yuto Furuya, Satoshi Natori, Hiromitsu Nishizaki, Yoshihiro Sekiguchi

169 Using Acoustic Dissimilarity Measures Based on State-Level Distance Vector Representation for Improved Spoken Term Detection
Naoki Yamamoto, Atsuhiko Kai

182 Speaker-Invariant and Rhythm-Sensitive Representation of Spoken Words
Nobuaki Minematsu, Yousuke Ozaki, Keikichi Hirose, Donna Erickson
Speaker Identification Using Pseudo Pitch Synchronized Phase Information in Noisy Environments
Yuta Kawakami, Longbiao Wang, Seiichi Nakagawa

Single Channel Dereverberation Method in Log-Melspectral Domain Using Limited Stereo Data for Distant Speaker Identification
Aditya Arie Nugraha, Kazumasa Yamamoto, Seiichi Nakagawa

Spoken Document Retrieval Using both Word-Based and Syllable-Based Document Spaces with Latent Semantic Indexing
Ken Ichikawa, Satoru Tsuge, Norihide Kitaoka, Kazuya Takeda, Kenzi Kita

A Prior Knowledge-Based Noise Reduction Method with Dual Microphones
Hao Chen, Chang-Chun Bao, Bing-Yin Xia

Vocal Tract Length Estimation for Voiced and Whispered Speech Using Gammachirp Filterbank
Toshio Irino, Erika Okamoto, Ryuichi Nisimura, Hideki Kawahara

Suitable Spatial Resolution at Frequency Bands Based on Variances of Phase Differences for Real-Time Talker Localization
Kohei Hayashida, Masato Nakayama, Takanobu Nishiwaka, Yoichi Yamashita

Visualization of Mandarin Articulation by Using a Physiological Articulatory Model
Dian Huang, Xiyu Wu, Jianguo Wei, Hongcui Wang, Chan Song, Qingzhi Hou, Jianwu Dang

Categorical Rating of Narrowband Mandarin Speech Quality
Kuan-Lang Huang, Tai-Shih Chi

Progressive Language Model Adaptation for Disaster Broadcasting with Closed-Captions
Takahiro Oku, Yuya Fujita, Akio Kobayashi, Shohei Sato

A New Method for the Objective Perceptual Measurement of Chinese Initials
Sai Chen, Hongcui Wang, Jia Jia, Jianwu Dang

Constructing a Three-Dimension Physiological Vowel Space of the Mandarin Language Using Electromagnetic Articulography
Jian Sun, Nan Yan, Lan Wang

Morphological Normalization: A Study of Vowels for Mandarin and Japanese
Hong Liu, Jianguo Wei, Wenhuan Lu, Liang Ma, Jianwu Dang

Predicting Gradation of L2 English Mispronunciations Using ASR with Extended Recognition Network
Hao Wang, Helen Meng, Xiaojun Qian

Intelligibility Comparison of Speech Annotation under Wind Noise in AAR Systems for Pedestrians and Cyclists Using Two Output Devices
Masanori Miura, Kazuhiro Kondo

A Local Minimum Stagnation Avoidance in Design of CSD Coefficient FIR Filters by Adding Gaussian Function
Kazuki Saitoh, Kenji Suyama

An Avoidance of Premature Convergence in IIR Filter Design Using PSO
Yuji Nishimura, Kenji Suyama

A Hardware-Efficient Variable-Length FFT Processor for Low-Power Applications
Yifan Bo, Renfeng Dou, Jun Han, Xiaoyang Zeng

Keypoints of Interest Based on Spatio-Temporal Feature and MRF for Cloud Recognition System
Takahiro Suzuki, Takeshi Ikenaga

Fixed Order Implementation of Kernel RLS-DCD Adaptive Filters
Kiyoshi Nishikawa, Yoshiki Ogawa, Felix Albu

Multi-Touch Points Detection for Capacitive Touch Panel
Chien-Hsien Wu, Ronald Chang, Wei-Ho Chung

Wireless Packet Collision Detection Using Self-Interference Canceller
Wataru Kawata, Kazunori Hayashi, Megumi Kaneko, Takumi Shimamoto, Hideaki Sakai

Modulation Spectrum Power-Law Expansion for Robust Speech Recognition
Hao Teng Fan, Zi Hao Ye, Jeih-Wei Hung
OS.17-IVM.6: Object Modeling and Recognition
50 A Novel Direct Feature-Based Seizure Detector: Using the Entropy of Degree Distribution of Epileptic EEG Signals
Qingfang Meng
53 Human Upper Body Posture Recognition and Upper Limbs Motion Parameters Estimation
Jun-Yang Huang, Shih-Chung Hsu, Chung-Lin Huang
69 Low Cost Illumination Invariant Face Recognition by Down-Up Sampling Self Quotient Image
Li Lin, Ching-Te Chiu
93 Image Recognition Based on Hidden Markov Eigen-Image Models Using Variational Bayesian Method
Kei Sawada, Kei Hashimoto, Yoshihiko Nankaku, Keiichi Tokuda
98 Point-in-Polygon Tests by Determining Grid Center Points in Advance
Jing Li, Wencheng Wang

OS.18-IVM.7: Advanced Image and Video Analysis
33 Indoor-Outdoor Image Classification Using Mid-Level Cues
Yang Liu, Xueqing Li
150 A Power-Efficient Cloud-Based Compressive Sensing Video Communication System
Mengsi Wang, Song Xiao, Lei Quan, Qunwei Li
185 Using Temporal-Domain Peak Interval Determination for Video-Based Short-Term Heart Rate Measurement
Yu-Shan Wu, Gwo-Hwa Ju, Ting-Wei Lee, Heng-Sung Liu, Yen-Lin Chiu
251 A Stereo Camera Distortion Detecting Method for 3DTV Video Quality Assessment
Quanwu Dong, Tong Zhou, Zongming Guo, Jianguo Xiao
261 The Detection of Blotches in Old Movies
Xu Li, Ranran Zhang, Yi Zhang
319 Improved Reconstruction for Computer-Generated Hologram from Digital Images
Min Liu, Guanglin Yang

OS.19-IVM.8: Visual Content Generation, Representation, Evaluation and Protection
51 Translation Insensitive Assessment of Image Quality Based on Measuring the Homogeneity of Correspondence
Chun-Hsien Chou, Yun-Hsiang Hsu
262 A Method of Illumination Effect Transfer between Images Using Color Transfer and Gradient Fusion
Yi Zhang, Tianhao Zhao, Zhipeng Mo, Wenbo Li
303 Semi-Fragile Watermarking Scheme with Discriminating General Tampering from Collage Attack
Yaoran Huo, Hongjie He, Fan Chen
381 Point Cloud Compression Based on Hierarchical Point Clustering
Yuxue Fan, Yan Huang, Jingliang Peng
384 Evaluating Line Drawings of Human Face
Lu Wang

OS.20-IVM.9: Multimedia Security and Forensics
78 Controllable Transparency Image Sharing Scheme for Grayscale and Color Images with Unexpanded Size
Yi-Chong Zeng, Chi-Hung Tsai
89 Approximate Message Passing Algorithm for Complex Separable Compressed Imaging
Akira Hirasayashi, Jumpei Sugimoto, Kazushi Mimura
168 Game Theoretic Analysis of Camera Source Identification
Zeng Hui, Jiang Yunwen, Xiangui Kang, Li Liu
174 A Secure Face Recognition Scheme Using Noisy Images Based on Kernel Sparse Representation
Masakazu Furukawa, Yuichi Muraki, Masaaki Fujiyoshi, Hitoshi Kiya
175 The Game of Countering JPEG Anti-Forensics Based on the Noise Level Estimation
Jiang Yunwen, Zeng Hui, Xiangui Kang, Li Liu
389 RFID Systems Integrated OTP Security Authentication Design
Chao-Hsi Huang
### OS.21-SLA.7: Recent Advances in Audio and Acoustic Signal Processing

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>114</td>
<td>A General Approach to the Design and Implementation of Linear Differential Microphone Arrays</td>
<td>Jingdong Chen, Jacob Benesty</td>
</tr>
<tr>
<td>345</td>
<td>Detection of User's Body Movement for Binaural Hearing Aids to Control of Directivity</td>
<td>Yoshifumi Chisaki, Shogo Tanaka, Tsuyoshi Usagawa</td>
</tr>
<tr>
<td>370</td>
<td>Speech Enhancement with Ad-Hoc Microphone Array Using Single Source Activity</td>
<td>Ryutaro Sakanashi, Nobutaka Ono, Shigeki Miyabe, Takeshi Yamada, Shoji Makino</td>
</tr>
</tbody>
</table>

### OS.22-OLA.8: Speech Recognition (I)

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>144</td>
<td>Estimation of Speech Recognition Performance in Noisy and Reverberant Environments Using PESQ Score and Acoustic Parameters</td>
<td>Takahiro Fukumori, Masato Nakayama, Takanobu Nishiura, Yoichi Yamashita</td>
</tr>
<tr>
<td>157</td>
<td>Fast NMF Based Approach and VQ Based Approach Using MFCC Distance Measure for Speech Recognition from Mixed Sound</td>
<td>Shoichi Nakano, Kazumasa Yamamoto, Seiichi Nakagawa</td>
</tr>
<tr>
<td>171</td>
<td>Morphological Personalization of a Physiological Articulatory Model</td>
<td>Nana Nishimura, Shin'ichi Kawamoto, Jianwu Dang, Kiyoshi Honda</td>
</tr>
<tr>
<td>179</td>
<td>Speech Recognition Using Blind Source Separation and Dereverberation Method for Mixed Sound of Speech and Music</td>
<td>Longbiao Wang, Kyohoe Odani, Atsuiko Kai, Weifeng Li</td>
</tr>
<tr>
<td>202</td>
<td>The Effect of Part-of-Speech on Mandarin Speech Recognition</td>
<td>Caixia Gong, Xiangang Li, Xihong Wu</td>
</tr>
<tr>
<td>207</td>
<td>Deep Neural Networks for Syllable Based Acoustic Modeling in Chinese Speech Recognition</td>
<td>Xiangang Li, Caifu Hong, Yuning Yang, Xihong Wu</td>
</tr>
</tbody>
</table>

### OS.23-SPS.3: Recent Advances in Digital Filter Design and Implementation

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>229</td>
<td>On $\mathcal{SL}_2$-Sensitivity of State-Space Digital Filters under Gramian-Preserving Frequency Transformation</td>
<td>Shunsuke Koshiba, Masahide Abe, Masayuki Kawamata</td>
</tr>
<tr>
<td>232</td>
<td>Hilbert Pair of Almost Symmetric Orthogonal Wavelets with Arbitrary Center of Symmetry</td>
<td>Dai-Wei Wang, Xi Zhang</td>
</tr>
<tr>
<td>235</td>
<td>An Effective Allocation of Non-Zero Digits for CSD Coefficient FIR Filters Using 0-1PSO</td>
<td>Takuya Imaizumi, Kenji Suyama</td>
</tr>
<tr>
<td>238</td>
<td>On the Limit Cycles in the Minimum L2-Sensitivity Realizations Subject to L2-Scaling Constraints of Second-Order Digital Filters</td>
<td>Shunsuke Yamaki, Masahide Abe, Masayuki Kawamata</td>
</tr>
<tr>
<td>321</td>
<td>Design of FIR Filters with Decimated Impulse Responses</td>
<td>Tomohiro Yamauchi, Ryo Matsuoka, Masahiro Okuda</td>
</tr>
</tbody>
</table>

### OS.24-SIPTM.3: Advances in Linear and Nonlinear Adaptive Signal Processing and Learning

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>103</td>
<td>A Self-Adaptive Intelligent Single Particle Optimizer Compression Algorithm</td>
<td>Zeng Jie</td>
</tr>
<tr>
<td>205</td>
<td>Context Dependent Acoustic Keyword Spotting Using Deep Neural Network</td>
<td>Guangsen Wang, Khe Chai Sim</td>
</tr>
<tr>
<td>308</td>
<td>Exploiting Sparsity in Feed-Forward Active Noise Control with Adaptive Douglas-Rachford Splitting</td>
<td>Masao Yamagishi, Isao Yamada</td>
</tr>
<tr>
<td>323</td>
<td>Multikernel Adaptive Filters with Multiple Dictionaries and Regularization</td>
<td>Taichi Ishida, Toshihisa Tanaka</td>
</tr>
<tr>
<td>373</td>
<td>Sparse Adaptive Filtering by Iterative Hard Thresholding</td>
<td>Rajib Das, Mritunjay Chakraborty</td>
</tr>
<tr>
<td>376</td>
<td>On Adaptivity of Online Model Selection Method Based on Multikernel Adaptive Filtering</td>
<td>Masahiro Yukawa, Ryu-Ichiro Ishii</td>
</tr>
<tr>
<td>Session</td>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>OS.25-IVM.10</td>
<td>Advanced Audio-Visual Analysis in Multimedia</td>
<td>Kazuhiro Kondo, Naoya Anazawa, Yosuke Kobayashi</td>
</tr>
<tr>
<td>10</td>
<td>Characteristics Comparison of Two Audio Output Devices for Augmented Audio Reality</td>
<td>Yuuki Tachioka, Toshiyuki Hanazawa, Tomohiro Narita, Jun Ishii</td>
</tr>
<tr>
<td>11</td>
<td>Voice Activity Detection Based on Density Ratio Estimation and System Combination</td>
<td>Yaocheng Rong, Quanhe Yu, Da An, Yun He</td>
</tr>
<tr>
<td>12</td>
<td>Human Gait Analysis by Using Body Segmentation and Center of Gravity</td>
<td>Ying-Fang Tsao, Ching-Te Chiu, Wen-Te Liu</td>
</tr>
<tr>
<td>13</td>
<td>Voice Activity Detection Based on Density Ratio Estimation and System Combination</td>
<td>Wei-Ho Tsai, Sung-How Su, Cin-Hao Ma</td>
</tr>
<tr>
<td>14</td>
<td>Near-Duplicate Subsequence Matching for Video Streams</td>
<td>Chih-Yi Chi, Yi-Cheng Chuang, Guei-Wun Han, Li-Wei Kang</td>
</tr>
<tr>
<td>15</td>
<td>Human Computer Interaction Using Face and Gesture Recognition</td>
<td>Yo-Jen Tu, Chung-Chieh Kao, Hui-Yung Lin</td>
</tr>
<tr>
<td>OS.26-IVM.11</td>
<td>Visual Data Understanding and Modeling</td>
<td>Yu-Tzu Lee, Te-Feng Su, Hong-Ren Su, Shang-Hong Lai</td>
</tr>
<tr>
<td>16</td>
<td>Cattle Face Recognition Based on Local Binary Pattern Descriptor</td>
<td>Cheng Cai, Jianqiao Li</td>
</tr>
<tr>
<td>17</td>
<td>Weed Seeds Identification Based on Structure Elements’ Descriptor</td>
<td>Minnan Tang, Cheng Cai</td>
</tr>
<tr>
<td>18</td>
<td>Non Separable 3D Lifting Structure Compatible with Separable Quadruple Lifting DWT</td>
<td>Masahiro Iwashashi, Teerapong Orachon, Hitoshi Kiya</td>
</tr>
<tr>
<td>19</td>
<td>3D Shape Retrieval Focused on Holes and Surface Roughness</td>
<td>Masaki Aono, Hitoshi Koyanagi, Atsushi Tatsuma</td>
</tr>
<tr>
<td>20</td>
<td>Can Ambiguous Words Be Helpful in Image-Understanding Systems?</td>
<td>Huiling Zhou, Jiwei HU, Kin Man Lam</td>
</tr>
<tr>
<td>21</td>
<td>Facial Expression Recognition Using Hough Forest</td>
<td>Chi-Ting Hsu, Shih-Chung Hsu, Chung-Lin Huang</td>
</tr>
<tr>
<td>22</td>
<td>Visual Tracking Using Joint Inference of Target State and Segment-Based Appearance Models</td>
<td>Junha Roh, Dong Woo Park, Junseok Kwon, Kyoung Mu Lee</td>
</tr>
<tr>
<td>OS.27-WCN.1</td>
<td>Green Communications and Networking</td>
<td>Chien-Chao Tseng, Chia-Liang Lin, Yu-Jen Chang</td>
</tr>
<tr>
<td>23</td>
<td>Fast Handover Techniques for ESS-Subnet Topology Mismatch in IEEE 802.11</td>
<td>Lai Jiunn-Ru, Hsieh Yi-Yu, Hsi-Lu Chao</td>
</tr>
<tr>
<td>24</td>
<td>Active Helper Searching Mechanism for Directional Cooperative Media Access Control (MAC) Protocols</td>
<td>Pengcheng Qiao, Yi Zhong, Wenyi Zhang</td>
</tr>
<tr>
<td>25</td>
<td>Base Station Cooperation for Energy Efficiency: A Gauss-Poisson Process Approach</td>
<td>Lung-Han Hsu, Hsi-Lu Chao</td>
</tr>
<tr>
<td>26</td>
<td>On Channel-Aware Frequency-Domain Scheduling with QoS Support for Uplink Transmission in LTE Systems</td>
<td>Yi Huai Hsu, Kuochen Wang, Yu-Che Tseng</td>
</tr>
<tr>
<td>27</td>
<td>Efficient Network Coding at Relay for Relay-Assisted Network-Coding ARQ Protocols</td>
<td>Jung-Chun Kao, Kuo-Hao Ho</td>
</tr>
<tr>
<td>28</td>
<td>Enhanced Cooperative Access Class Barring and Traffic Adaptive Radio Resource Management for M2M Communications over LTE-A</td>
<td>Kuang-Hao (Stanley) Liu, Kuan-Yu Lin</td>
</tr>
<tr>
<td>29</td>
<td>Green Cooperative Relaying in Multi-Source Wireless Networks with High Throughput and Fairness Provisioning</td>
<td>Yung-Shun Wang, Y.-W. Peter Hong, Wen-Tsuen Chen</td>
</tr>
</tbody>
</table>
### OS.28-SLA.9: Speech Recognition (II)

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>UML-Based Robotic Speech Recognition Development: A Case Study</td>
<td>Abdelaziz Abdelhamid</td>
</tr>
<tr>
<td>49</td>
<td>Temporally Variable Multi-Aspect N-Way Morphing Based on Interference-Free Speech Representations</td>
<td>Hideki Kawahara, Masanori Morise, Hideki Banno, Verena Skuk</td>
</tr>
<tr>
<td>56</td>
<td>Speech Recognition under Noisy Environments Using Multiple Microphones Based on Asynchronous and Intermittent Measurements</td>
<td>Kohei Machida, Akinori Ito</td>
</tr>
<tr>
<td>66</td>
<td>A Neural Understanding of Speech Motor Learning</td>
<td>Xi Chen, Han Yan, Jianwu Dang, Bernd Kroeger, Qiang Fang</td>
</tr>
<tr>
<td>113</td>
<td>Speech Recognition with Large-Scale Speaker-Class-Based Acoustic Modeling</td>
<td>Kazuki Kanno, Masaharu Kato, Tetsuo Kosaka</td>
</tr>
<tr>
<td>115</td>
<td>Confidence Estimation and Keyword Extraction from Speech Recognition Result Based on Web Information</td>
<td>Hara Kensuke, Sekiya Hideki, Kawase Tetsuya, Tamura Satoshi, Hayamizu Satoru</td>
</tr>
<tr>
<td>178</td>
<td>Estimating the Position of Mistracked Coil of EMA Data Using GMM-Based Methods</td>
<td>Qiang Fang, Fang Hu, Jianguo Wei, Aijun Li, Haibo Wang</td>
</tr>
</tbody>
</table>

### OS.29-SLA.10: Audio Signal Analysis, Processing and Classification (I)

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>236</td>
<td>Adaptive Semi-Supervised Tree SVM for Sound Event Recognition in Home Environments</td>
<td>Wen Zheng Terence Ng, Huy Dat Tran, Thai Hoa Huynh, Eng Siong Chng</td>
</tr>
<tr>
<td>240</td>
<td>Sparse Coding for Sound Event Classification</td>
<td>Weifeng Li, Mingming Zhang, Jianguo Wei, Qingmin Liao, Longbiao Wang, Zhiyong Wu</td>
</tr>
<tr>
<td>294</td>
<td>Towards a More Efficient Sparse Coding Based Audio-Word Feature Extraction System</td>
<td>Chin-Chia Yeh, Yi-Hsuan Yang</td>
</tr>
<tr>
<td>310</td>
<td>Robust Sound Event Recognition under TV Playing Conditions</td>
<td>Wen Zheng Terence Ng, Huy Dat Tran, Eng Siong Chng, Jonathan William Dennis</td>
</tr>
<tr>
<td>324</td>
<td>Multimodal Person Authentication System</td>
<td>Shi Qian, Yoshinobu Kajikawa</td>
</tr>
</tbody>
</table>

### OS.30-SPS.4: 3D Video Representation and Coding

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
<td>Generation of Eye Contact Image Using Depth Camera for Realistic Telepresence</td>
<td>Sang-Beom Lee, Yo-Sung Ho</td>
</tr>
<tr>
<td>88</td>
<td>Efficient Up-Sampling Method of Low-Resolution Depth Map Captured by Time-of-Flight Depth Sensor</td>
<td>Yun-Suk Kang, Yo-Sung Ho</td>
</tr>
<tr>
<td>217</td>
<td>When Disparity Meets Distance: HEVC Compression of Double-Faced Depth Map</td>
<td>Yu-Hsun Lin, Ja-Ling Wu, Toshihiko Yamasaki, Kiyoharu Aizawa</td>
</tr>
<tr>
<td>291</td>
<td>Joint Texture-Depth Pixel Inpainting of Disocclusion Holes in Virtual View Synthesis</td>
<td>Smarti Reel, Gene Cheung, Patrick Wong, Laurence Dooley</td>
</tr>
<tr>
<td>311</td>
<td>Overcomplete Compressed Sensing of Ray Space for Generating Free Viewpoint Images</td>
<td>Qiang Yao, Keita Takahashi, Toshiaki Fuji</td>
</tr>
<tr>
<td>372</td>
<td>Novel 3D Video Conversion from Down-Sampled Stereo Video</td>
<td>Wun-Ting Lin, Shang-Hong Lai</td>
</tr>
</tbody>
</table>

### OS.31-BioSiPS.2: Biomedical Signal Processing and Systems

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>Spatial Auditory BCI with ERP Responses to Front-Back to the Head Stimuli Distinction Support</td>
<td>Zhenyu Cai, Shoji Makino, Tomasz Rutkowski</td>
</tr>
<tr>
<td>116</td>
<td>Detecting Pathological Speech Using Local and Global Characteristics of Harmonic-to-Noise Ratio</td>
<td>Jung-Won Lee, Hong-Goo Kang, Samuel Kim, Yoonjae Lee</td>
</tr>
<tr>
<td>128</td>
<td>Speech Enhancement for Pathological Voice Using Time-Frequency Trajectory Excitation Modeling</td>
<td>Eunwoo Song, Jongyoub Ryu, Hong-Goo Kang</td>
</tr>
<tr>
<td>135</td>
<td>ECG Baseline Extraction by Gradient Varying Weighting Functions</td>
<td>Ying-Jou Chen, Jian-Jun Ding, Chen-Wei Huang, Yi-Lwun Ho, Chi-Sheng Hung</td>
</tr>
<tr>
<td>256</td>
<td>Patients’ Consciousness Analysis Using Dynamic Approximate Entropy and MEMD Method</td>
<td>Gaochao Cui, Yunchao Yin, Qibin Zhao, Andrzej Cichocki, Jianting Cao</td>
</tr>
<tr>
<td>386</td>
<td>Homemade Pulse Detector for Hemoglobin Prediction</td>
<td>Khunawat Luangrat, Yodchanan Wongsawat</td>
</tr>
<tr>
<td>387</td>
<td>Spatial Auditory BCI Paradigm Based on Real and Virtual Sound Images Generation</td>
<td>Nozomo Nishikawa, Shoji Makino, Tomasz Rutkowski</td>
</tr>
<tr>
<td>388</td>
<td>Classifying P300 Responses to Various Vowel Stimuli for Auditory Brain-Computer Interface</td>
<td>Yoshihiro Matsumoto, Tomasz Rutkowski, Shoji Makino</td>
</tr>
</tbody>
</table>
Non-Liner Learning for Mixture of Gaussians
Chih-Yang Lin, Pin-Hsian Liu, Tatenda Muindisi, Chia-Hung Yeh, Po-Chyi Su

Abandoned Object Detection in Complicated Environments
Kahlil Muchtar, Chih-Yang Lin, Li-Wei Kang, Chia-Hung Yeh

A Dynamic Mobile Services Access and Payment Platform with Reusable Tickets for Mobile Communication Networks
Hao-Chuan Tsai, Hui-Fuang Ng

An Improved Method for Image Thresholding Based on the Valley-Emphasis Method
Hui-Fuang Ng, Davaajargal Jargalsaikhan, Hao-Chuan Tsai, Chih-Yang Lin

A Vision-Based Navigation System for Tamsui Historical Buildings
Wu Wen-Chuan, Lin Zi-Wei, Yi-Hui Chen

Process of Reading and Writing the Tag of the Motor Vehicle Electrical Identification System Based on the RFID Technology
Changcheng Wu, Liu Dongbo, Hu JiaBin
OS.33-IVM.12: Emerging Technologies in Multimedia Communications
24 Diffie-Hellman Key Distribution in Wireless Multi-Way Relay Networks
Ronald Chang, Sian-Jheng Lin, Wei-Ho Chung
250 A Facial Skin Changing System
Yu-Ren Lai, Chih-Yuan Yao, Hao-Siang Hu, Ming-Te Chi, Yu-Chi Lai
273 A Skeleton-Based Pairwise Curve Matching Scheme for People Tracking in a Multi-Camera Environment
Chien-Hao Kuo, Shih-Wei Sun, Pao-Chi Chang
289 An Image-Based Postal Barcode Decoder with Missing Bar Correction
Peng-Hua Wang, Jia-Wei Ciou
309 Privacy Image Protection Using Fine-Grained Mosaic Technique
Yi-Hui Chen, Eric Jui-Lin Lu, Chu-Fan Wang
332 Secret Sharing Mechanism with Cheater Detection
Pei-Yu Lin, Yi-Hui Chen, Ming-Chieh Hsu, Fu-Ming Juang

OS.34-IVM.13: 3D Image Processing/Compression, Object Tracking, and Augmented Reality
214 Resolution Adjustable 3D Scanner Based on Using Stereo Cameras
Tzung-Han Lin
272 A Modified Mean Shift Algorithm for Visual Object Tracking
Shu-Wei Chou, Chaur-Heh Hsieh, Hown-Wen Chen
284 Mobile Application of Interactive Remote Toys with Augmented Reality
Chifu Lin, Pai-Shan Pa, Chiou-Shann Fuh
307 An Error Propagation Free Data Hiding Algorithm in HEVC Intra-Coded Frames
Po-Chun Chang, Kuo-Liang Chung, Jiann-Jone Chen, Chien-Hsiung Lin, Tseng-Jung Lin
340 Dual Edge-Constrained Inpainting of 3D Depth Map Using Color Image’s Edges and Depth Image’s Edges
Shao-Gang Miaou, Ming-Fu Hung, Chih-Yuan Chiang
363 Face Recognition Using Sparse Representation with Illumination Normalization and Component Features
Gee-Sern Hsu, Ding-Yu Lin

OS.35-IVM.14: Intelligent Multimedia Applications
160 True Motion Estimation Based on Reliable Motion Decision
Tien-Ying Kuo, Cheng-Hong Hsieh, Yi-Chung Lo, Jian-Hua Wang
239 Clustering User Queries into Conceptual Spaces
Li-Chin Lee, Yi-Shin Chen
283 Complexity Control of Motion Compensation for Video Decoding
Wei-Hsiang Chiou, Chih-Hung Kuo, Yi-Shian Shie
296 A Privacy Protection Scheme in H.264/AVC by Data Hiding
Po-Chyi Su, Wei-Yu Chen, Shao-Yu Shiau, Ching-Yu Wu, Addison Y.S. Su
331 The Modification of Beat to Beat Algorithm and Its Application on the Assessment of Muscle Flexibility
Yung-Hui Li, Jian-Guo Bau
346 Happiness Detection in Music Using Hierarchical SVMs with Dual Types of Kernels
Yu Hao Chin, Chang-Hong Lin, Ernestasia Siahaan, Jia Ching Wang

OS.36-IVM.15: Advanced Image and Video Processing
104 Scale-Compensated Nonlocal Mean Super Resolution
Qiaochu Li, Qikun Guo, Saboya Yang, Jiaying Liu
259 Stitching of Heterogeneous Images Using Depth Information
Jun-Tae Lee, Jae-Kyun Ahn, Chang-Su Kim
271 Cross-Layer Optimized Multipath Video Streaming over Heterogeneous Wireless Networks
Oh Chan Kwon, Hwangjun Song
275 Self-Similarity Based Image Super-Resolution on Frequency Domain
Sae-Jin Park, Oh-Young Lee, Jong-Ok Kim
333 Robust Feature Description and Matching under Out-of-Plane Rotation Using Local Graph
Man Hee Lee, In Kyu Park
368 Human Segmentation Algorithm for Real-Time Video-Call Application
Seon Heo, Hyung Il Koo, Hong Il Kim, Nam Ik Cho
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>Fast Image Alignment with Fourier Moment Matching on GPU</td>
<td>Hong-Ren Su, Hao-Yuan Kuo, Shang-Hong Lai, Chin-Chia Wu</td>
</tr>
<tr>
<td>110</td>
<td>Efficient Depth Map Recovery Using Concurrent Object Boundaries in Texture and Depth Images</td>
<td>Se-Ho Lee, Tae-Young Chung, Jae-Young Sim, Chang-Su Kim</td>
</tr>
<tr>
<td>152</td>
<td>A New Non-Uniform Quantization Method Based on Distribution of Compressive Sensing Measurements and Coefficients Discarding</td>
<td>Fengtai Zhai, Song Xiao, Lei Quan</td>
</tr>
<tr>
<td>172</td>
<td>A Fixed-Point Tone Mapping Operation for HDR Images in the RGBE Format</td>
<td>Toshiyuki Dobashi, Tatsuya Murofushi, Masahiro Iwahashi, Hitoshi Kiya</td>
</tr>
<tr>
<td>211</td>
<td>Automatic Trimap Generation for Digital Image Matting</td>
<td>Ming-Sui Lee, Chang-Lin Hsieh</td>
</tr>
<tr>
<td>23</td>
<td>Multi-Decision Handover Mechanism over Wireless Relay Networks</td>
<td>Chung-Nan Lee, Shin-Hung Lai, Szu-Cheng Shen, Shih-I Chen</td>
</tr>
<tr>
<td>67</td>
<td>Sectorization with Beam Pattern Design Using 3D Beamforming Techniques</td>
<td>Chang-Shen Lee, Ming-Chun Lee, Chung-Jung Huang, Ta-Sung Lee</td>
</tr>
<tr>
<td>71</td>
<td>Cell Selection Using Distributed Q-Learning in Heterogeneous Networks</td>
<td>Toshihito Kudo, Tomoaki Ohtsuki</td>
</tr>
<tr>
<td>79</td>
<td>Robust Wi-Fi Location Fingerprinting Against Device Diversity Based on Spatial Mean Normalization</td>
<td>Chu-Hsuan Wang, Tai-Wei Kao, Shih-Hau Fang, Yu Tsao, Lun-Chia Kuo, Shih-Wei Kao, Nien-Chen Lin</td>
</tr>
<tr>
<td>92</td>
<td>Hierarchical Multi-Stage Interference Alignment for Downlink Heterogeneous Networks</td>
<td>Tomoki Akitaya, Takahiko Saba</td>
</tr>
<tr>
<td>189</td>
<td>Efficient Data-Gathering Using Graph-Based Transform and Compressed Sensing for Irregularly Positioned Sensors</td>
<td>Sungwon Lee, Antonio Ortega</td>
</tr>
<tr>
<td>227</td>
<td>Speech Driven Photo-Realistic Face Animation with Mouth and Jaw Dynamics</td>
<td>Ying He, Yong Zhao, Dongmei Jiang, Hichem Sahli</td>
</tr>
<tr>
<td>254</td>
<td>TalkingAndroid: An Interactive, Multimodal and Real-Time Talking Avatar Application on Mobile Phones</td>
<td>Huijie Lin, Jia Jia, Lianhong Cai, Xiangjin Wu</td>
</tr>
<tr>
<td>315</td>
<td>Personalized 3-D Facial Expression Synthesis Based on Landmark Constraint</td>
<td>Haoran Liang, Mingli Song, Lei Xie, Ronghua Liang</td>
</tr>
<tr>
<td>382</td>
<td>A Real-Time Speech Driven Talking Avatar Based on Deep Neural Network</td>
<td>Kai Zhao, Zhiyong Wu, Lianhong Cai</td>
</tr>
<tr>
<td>100</td>
<td>Feature Normalization Using MVAW Processing for Spoken Language Recognition</td>
<td>Chien-Lin Huang, Shigeki Matsuda, Chiori Hori</td>
</tr>
<tr>
<td>226</td>
<td>An Experimental Study on Structural-MAP Approaches to Implementing Very Large Vocabulary Speech Recognition Systems for Real-World Tasks</td>
<td>I-Fan Chen, Sabato Marco Siniscalchi, Seokyong Moon, Daejin Shin, Myong-Wan Koo, Minhwa Chung, Chin-Hui Lee</td>
</tr>
<tr>
<td>237</td>
<td>Frequency-Domain Dereverberation on Speech Signal Using Surround Retinex</td>
<td>Weifeng Li, Jianguo Wei, Mingming Zhang, Zhiyong Wu, Qingmin Liao, Longbiao Wang</td>
</tr>
<tr>
<td>266</td>
<td>A Particle Filter Compensation Approach to Robust LVCSR</td>
<td>Duc Hoang Ha Nguyen, Aleem Mushtaq, Xiong Xiao, Eng Siong Chng, Haizhou Li, Chin-Hui Lee</td>
</tr>
<tr>
<td>313</td>
<td>Context-Dependent Deep Neural Networks for Commercial Mandarin Speech Recognition Applications</td>
<td>Jianwei Niu, Lei Xie, Lei Jia, Na Hu</td>
</tr>
</tbody>
</table>
OS.41-IVM.17: Advanced Visual Media Data Generation, Editing and Transmission

216 Buffer-Based Smooth Rate Adaption for Dynamic HTTP Streaming
Chao Zhou, Chia-Wen Lin, Xinggong Zhang, Zongming Guo

234 Packet-Layer Model for Quality Assessment of Encrypted Video in IPTV Services
Qian Zhang, Ning Liao, Fan Zhang, Zhibo Chen, Lin Ma

263 Image Enlargement by Patch-Based Seam Synthesis
Qi Wang, Zhengzhe Liu, Chen Li, Bin Sheng, Dawei Liu

380 A Data-Driven Model for Anisotropic Heterogeneous Subsurface Scattering
Ying Song, Wencheng Wang

OS.42-SLA.13: Audio Signal Analysis, Processing and Classification (II)

334 A Vehicular Noise Surveillance System Integrated with Vehicle Type Classification
Chuang Shi, Woon-Seng Gan, Yong-Kim Chong, Agha Apoorv, Kin-San Song

341 Quantitative Evaluation of Violin Solo Performance
Yiji Lin, Wei-Chen Chang, Alvin W. Y. Su

347 Adaptive Processing and Learning for Audio Source Separation
Jen-Tzung Chien, Hiroshi Sawada, Shoji Makino

356 A Two-Stage Query by Singing/Humming System on GPU
Wei-Tsa Kao, Chung-Che Wang, Kaichun Chang, Jyh-Shing Jang, Wenshan Liou

364 The NUS Sung and Spoken Lyrics Corpus: A Quantitative Comparison of Singing and Speech
Zhiyan Duan, Haotian Fang, Bo Li, Khe Chai Sim, Ye Wang

OS.43-SLA.14: Audio and Acoustic Signal Processing

31 Audio Bandwidth Extension Based on Grey Model
Haichuan Bai, Chang-Chun Bao, Xin Liu, Hongrui Li

37 Local Partial Least Square Regression for Spectral Mapping in Voice Conversion
Xiaohai Tian, Zhizheng Wu, Eng Siong Chng

181 Semi-Blind Algorithm for Joint Noise Suppression and Dereverberation Based on Higher-Order Statistics and Acoustic Model Likelihood
Fine Aprilyanti, Hiroshi Saruwatari, Kiyohiro Shikano, Satoshi Nakamura, Tomoya Takatani

212 Incorporating Global Variance in the Training Phase of GMM-Based Voice Conversion
Hsin-Te Hwang, Yu Tsao, Hsin-Min Wang, Yih-Ru Wang, Sin-Horng Chen

OS.44-SLA.15: Speech and Audio Coding and Synthesis

25 SPIDER: A Continuous Speech Light Decoder
Abdelaziz Abdelhamid

26 Optimization on Decoding Graphs Using Soft Margin Estimation
Abdelaziz Abdelhamid

27 Joint Discriminative Learning of Acoustic and Language Models on Decoding Graphs
Abdelaziz Abdelhamid

90 Realizing Tibetan Speech Synthesis by Speaker Adaptive Training
Hongwu Yang, Keiichiro Oura, Zhenye Gan, Keiichi Tokuda

OS.45-SLA.16: Emotion Analysis and Recognition

126 Emotional Adaptive Training for Speaker Verification
Fanhu Bie, Dong Wang, Thomas Fang Zheng, Javier Tejedor, Ruxin Chen

146 Cross-Lingual Speech Emotion Recognition System Based on a Three-Layer Model for Human Perception
Reda Elbarougy, Masato Akagi

162 Emotion Recognition Method Based on Normalization of Prosodic Features
Motoyouki Suzuki, Shohei Nakagawa, Kenzi Kita

Aijun Li, Yuan Jia, Qiang Fang, Jianwu Dang
Ronald Chang, Sian-Jheng Lin, Wei-Ho Chung

166 A VLSI Design of an Arrayed Pipelined Tomlinson-Harashima Precoder for MU-MIMO Systems
Kosuke Shimazaki, Shingo Yoshizawa, Yasuyuki Hatakawa, Tomoko Matsumoto, Satoshi Konishi, Yoshikazu Miyanaga

257 An Ultra Low-Power and Area-Efficient Baseband Processor for WBAN Transmitter
Mengyuan Chen, Jun Han, Dabin Fang, Yao Zou, Xiaoyang Zeng

270 Compressed Sensing Recovery Algorithms and VLSI Implementation
Kuan-Ting Lin, Kai-Jiun Yang, Pu-Hsuan Lin, Shang-Ho Tsai

366 Classification of Video Resolution for the Enhanced Display of Images on HDTV
Jewoong Ryu, Gibak Kim, Sang Hwa Lee, Byung Seok Min, Nam Ik Cho

OS.47-BioSiPS.3: Frontiers of BioSiPS in Daily Life

269 Development of a Wearable HRV Telemetry System to Be Operated by Non-Experts in Daily Life
Toshitaka Yamakawa, Koichi Fujiwara, Manabu Kano, Miho Miyajima, Yoko Suzuki, Taketoshi Maehara, Katsuya Ohta, Tetsuo Sasano, Masato Matsuura, Ei suke Matsushima

279 Evolutionary Programming Based Recommendation System for Online Shopping
Jehan Jung, Yuka Matsuba, Rammohan Mallipeddi, Hiroyuki Funaya, Kazushi Ikeda, Minho Lee

282 Heart Rate Variability Features for Epilepsy Seizure Prediction
Hashimoto Hirotsugu, Koichi Fujiwara, Suzuki Yoko, Miho Miyajima, Toshitaka Yamakawa, Manabu Kano, Taketoshi Maehara, Katsuya Ohta, Tetsuo Sasano, Masato Matsuura, Ei suke Matsushima

326 Visual Fixation Patterns of Artists and Novices in Abstract Painting Observations
Naoko Koide, Takatomi Kubo, Tomohiro Shibata, Kazushi Ikeda

328 A Comparative Study of Time Series Modeling for Driving Behavior towards Prediction
Ryunosuke Hamada, Takatomi Kubo, Kazushi Ikeda, Zujie Zhang, Takashi Bando, Masumi Egawa

OS.48-SIPTM.5: Recent Advances in Multirate Processing and Transforms

248 Lossless Transform with Functionality of Thumbnail Previewing
Masahiro Iwahashi, Suvit Poomrittigul, Hitoshi Kiya

278 A Two-Dimensional Non-Separable Implementation of Dyadic-Valued Cosine-Sine Modulated Filter Banks for Low Computational Complexity
Seisuke Kyochi, Taizo Suzuki, Yuichi Tanaka

292 Integer Multichannel Transform
Jian-Jiun Ding, Po-Hong Wu

300 Boundary Operation of 2-D Non-Separable Oversampled Lapped Transforms
Kosuke Furuya, Shintaro Hara, Muramatsu Shogo

367 Critically Sampled Graph-Based Wavelet Transforms for Image Coding
Yung-Hsuan Chao, Sunil Narang, Antonio Ortega