2014 International Symposium on Intelligent Signal Processing and Communication Systems

(ISPACS 2014)

Kuching, Malaysia
1-4 December 2014
**TABLE OF CONTENTS**

Delayed Correlation Based Signal Detection Scheme With Filter Bank For OFDM Signal ........................................... 1  
H. Odani, Y. Sanada

Methods For Joint PAPR And Spectral Improvement Of Correlatedly Coded OFDM System ........................................ 7  
M.-J. Hao, C.-W. Shih

Evaluation Of Diversity Combining Methods For Underwater Acoustic OFDM Communication ................................. 13  
R. Ishimoto, S. Yoshizawa, H. Tanimoto, T. Saito

IQ Imbalance And Carrier Frequency Offset Compensation Schemes For TFI-OFDM ............................................. 17  
H. Oka, C.-J. Ahn, T. Omori, K.-Y. Hashimoto

Correlation Reduction Precoding For Joint Decoding In Overloaded MIMO-OFDM System On Rician Channel ................................................................. 23  
T. Yabe, Y. Sanada

A Novel Color Image Processing Scheme In HSI Color Space With Negative Image Processing ..................................... 29  
N. Nakajima, A. Taguchi

Comparative Analysis Of Underwater Image Enhancement Methods In Different Color Spaces ................................. 34  
S.-L. Wong, Y.-F. Yu, N. Ho, R. Paramesran

Blind Image Quality Assessment For Color Images With Additive Gaussian White Noise Using Standard Deviation ............................................................ 39  
C.-L. Lin, R. Paramesran

Subjective Assessment Of Super-Resolution 4K Video Using Paired Comparison ......................................................... 42  
M. Seggie, S. Gohshi, H. Takeshita, C. Morii

Performance Evaluation Of SVD-Based Digital Image Watermarking Scheme On Print-Scan And Print-Cam (PSPC) Applications .................................................. 48  
N. Makbol, B. Khoo, T. Rassem

Phishing Website Detection Using URL-Assisted Brand Name Weighting System ....................................................... 54  
C. Tan, K. Chiew, S. See

Data Extraction From Data-Embedded Printed Image Using Embedding Markers For Image Correction .............................................................. 60  
K. Tamaki, M. Muneyasu

Hierarchical Scrambling Scheme For Palette-Based Images .......................................................................................... 65  
A. Aryal, S. Imaizumi, N. Aoki

Image Invisibility Assessment For Visually Encrypted Images .................................................................................... 71  
A. Uchida, M. Fujiyoshi, S. Shiota, H. Kiya

Speaker Recognition Using Neural Responses From The Model Of The Auditory System ........................................ 76  
N. Razali, W. Jassim, L. Roohisefat, M. Zilany

DOA Estimation Of Multiple Sources Using Arbitrary Microphone Array Configuration In The Presence Of Spatial Aliasing ........................................................................... 80  
M. Sekikawa, N. Hamada

Comodulation Masking Release: A Study Using A Computational Model Of The Auditory Periphery .......................... 84  
T. Ming, L. Onn, M. Zilany

A Delay-Based Dual Adaptive Filtering Solution For Acoustic Feedback In Digital Hearing Aids ............................. 88  
M. Akhtar, A. Nishihara

A CMOS OTA And Implementation ......................................................... 94  
A. Yodraan

On-Chip Slew-Rate Control For Low-Voltage Differential Signalling (LVDS) Driver ................................................ 99  
S. Lee, A. Saad, L. Lee, W. Kang

High Speed Implementation Of Symmetric Block Cipher On GPU ............................................................................. 102  
W.-K. Lee, B.-M. Goi, R. Phan, G.-S. Pho

Compact And Low Power AES Block Cipher Using Lightweight Key Expansion Mechanism And Optimal Number Of S-Boxes ........................................................................ 108  
J. Taek, M. Wong, I. Hijazin

New Lightweight AES S-Box Using LFSR .................................................................................................................. 115  
M. Wong

Efficient Data Hiding In Encrypted JPEG 2000 Codestreams .................................................................................... 121  
W. Sae-Tang, M. Fujiyoshi, H. Kiya

A New Implementation For The Logarithmic/Exponential Function Generator ......................................................... 127  
M. Abuelma’atti, N. Tasaddug
OTA-Based Electronically Tunable Elliptic High-Order Current-Mode Ladder Band-Pass Filter
N. Wongprommoon, P. Prommee 133

Electronically Tunable Voltage-Mode Elliptic Third-Order Ladder Low-Pass Filter Using Simple OTA
A. Tsamisaphat, P. Prommee 137

Sum Of Products: Computation Using Modular Thermometer Codes
C. Van, A. Premikumar, W. Zhang 141

A SoC Architecture For Nearest-Neighbor Based Learning And Recognition
F. An, L. Chen, H. Mattausch 147

Integrating Active And Passive Received Signal Strength-Based Localization
M. Talampas, K.-S. Low 153

An Improved Adaptive Square Root Unscented Kalman Filter For Denoising IFOG Signal
M. Narasimhapa, S. Sabat, J. Nayak 159

Application Of Intensity Estimation Method Of The FID Signal Based On The High-Order Prony Estimation Method And Selective Evaluation Criterion To Purity Estimation In Quantitative NMR,
Dependence of the $^{13}$C Decoupling And The Sample Spinning
T. Nakao, T. Furukawa, T. Suematsu, H. Utsumi, H. Kubota 165

A Proposal Of Blind Identification Method Based On Over-Sampling Using Orthogonal Filter For IIR System
S. Tajima, T. Ogawa, H. Matsumoto 171

Neural Strain Based Phoneme Classification Under Noisy Condition
M. Alam, W. Jassim, M. Zilany 175

Optical Strain Based Recognition Of Subtle Emotions
S.-T. Liong, R. Phan, J. See, Y.-H. Oh, K. Wong 180

Vision-Based Hand Grasping Posture Recognition In Drinking Activity
J.-L. Chua, Y. Chang, M. Jaward, J. Parkkinen, K.-S. Wong 185

Genetic Algorithm Assisted By A SVM For Feature Selection In Gait Classification

A Modular Approach And Voting Scheme On 3D Face Recognition
H. Ujir, L. Sing, I. Hipiny 196

Fast Video Completion Using Patch-Based Synthesis And Image Registration
M. Affifi, K. Hussain, H. Ibrahim, N. Omar 200

Video Face Replacement System Using A Modified Poisson Blending Technique
M. Affifi, K. Hussain, H. Ibrahim, N. Omar 205

A High Parallel Way For Processing IQ/IT Part Of HEVC Decoder Based On GPU
L.-P. He, S. Gojo 211

Video Based Heart Rate Estimation Under Different Light Illumination Intensities
Y.-P. Yu, R. Paramesvaran, C.-L. Lim 216

Analyses Of Basketball Player Field Goal Shooting Postures For Player Motion Correction Using Kinect Sensor

MIMO Stream Selection Based On Antenna Layout And Channel Scenario
M. Kato, N. Sasaoka, K. Shiogai, Y. Itoh 226

Performance Evaluation Of Error Correction Code In MIMO Scheme For WBAN Channel
B. Sansoda, S. Choomchuay 230

On Efficient Relay Beamforming For Relay Assisted Multiuser MIMO System
A. Saand, V. Jeoti, M. Saad 234

Performance Of Overloaded MIMO-OFDM System With Repetition Code
H. Matsuoka, Y. Doi, T. Yabe, Y. Sanada 239

Effect Of Joint Detection And Decoding In Non-Orthogonal Multiple Access
T. Yazaki, Y. Sanada 245

Analysis Of Recursive Least Moduli Algorithm For Adaptive Filters In Impulsive Noise Environments
S. Koike 251

Design Of A Krill Herd Algorithm Based Adaptive Channel Equalizer
S. Pandey, R. Patidar, N. George 257

Linearly Constrained RLS Algorithm With Variable Forgetting Factor For DS-CDMA System
S.-J. Chern, C.-H. Sun 261

Defining Redundancy In Histogram Of Any Signal For Reversible Data Embedding
M. Karim, K. Wong 265
Cherry-Hooper Amplifiers With 33dB Gain At 400 kHz BW And 10 dB Gain At 3.5 MHz BW In Flexible Self-Aligned a-IGZO TFT Technology

Three-Input Single-Output Current-Mode Universal Filter Using A Single FDCCI And Grounded Passive Components
U. Torteanchai, M. Kumngern

Concurrent 2.4 And 5.8 GHz Dual Band Power Amplifier For FMCW Radar Systems
N. Joram, R. Wolf, B. Lindner, F. Ellinger

Three-Input Single-Output Voltage-Mode Universal Filter Using Single FDCCI
M. Kumngern

Reconfigurable Complex $\text{gm}$-C Band-Pass Filter With High Linearity For Multi-Standard Radio Receivers
B. Lindner, J. Wagner, N. Joram, U. Yodprasit, F. Ellinger

Analysis Of Compressed Sensing Based CT Reconstruction With Low Radiation
W. Hou, C. Zhang

A Feature Extracting Method Using Gradient And Watershed For Tonsillitis Diagnosis
P. Phensadsaeng, K. Channongthai

Improving Classification Accuracy Of SSVEP Based BCI Using RBF SVM With Signal Quality Evaluation
H.-L. Jian, K.-T. Tang

Implementing 802.11 Probe Request Scanner Using WARP Platform
C. Yeoh, A. Rahman

Performance Measurements For Symmetrical Services In Wireless Networks
W.-K. New, C.-O. Chow, M. Ma

Candidate Codeword Selection Scheme With Bit Flipping For Outer Code In Overloaded MIMO-OFDM System
Y. Doi, Y. Sanada

MMT AL-FEC Codes For Networked Distributed Storage
T. Nakachi, A. Okada, T. Fujii

Multi-Oriented Text Detection For Intra-Frame In H.264/AVC Video
K. Minemura, S. Palaiahnakote, K. Wong

Text Detection Via Edgless Stroke Width Transform
A. Risnumawan, C. Chan

Wide Range Depth Estimation From Two Blurred images With Tilted Lens Optics
M. Okuwaki, H. Ikehata, T. Hamamoto

Multi-Oriented Moving Text Detection
V. Khare, P. Shivakumara, P. Raveendran

Author Index