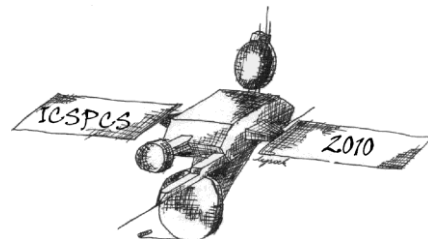


# Call for Papers



## 4<sup>th</sup> International Conference on Signal Processing and Communication Systems, ICSPCS'2010



Gold Coast, Queensland, Australia, 13-15 December 2010

[http://www.dspscs-witsp.com/icspcs\\_2010/index.html](http://www.dspscs-witsp.com/icspcs_2010/index.html)

Communication Systems worldwide have provided a rapidly growing and useful range of services and are continuing to evolve using a multitude of Signal Processing techniques. The 4th International Conference on Signal Processing and Communication Systems, ICSPCS'2010, follows the very successful ICSPCS'2009. A major objective of the Conference will be to pursue the progression from communication and information theory through to the implementation, evaluation and performance improvement of practical communication systems using Signal Processing technology. The Conference is planned to be a forum for presenting research into topics ranging from those of the physical layer to the application layer. All aspects of the protocols and processes required for the future Internet to operate better and the applications to utilize the full potential offered by the current and the emerging networking infrastructure are also encompassed. In addition, we expect that, as during the previous events, there will be several papers dealing with image, video and audio processing for multimedia, medical and forensic applications, as well as with the security of private and corporate data.

**The Conference is technically co-sponsored by IEEE Communications Society, and all presented papers will be published in the IEEE Xplore.**

Previously unpublished contributions to the following technical areas, but not limited to, are solicited:

### Internet

- Traffic modelling
- Protocols
- Embedded Internet devices
- New and enhanced services
- Resource and information management
- Adaptive QoS provisioning
- End-to-end QoS
- Emerging technologies

### Wireless Networks

- Mobile ad hoc networking
- Personal area networking
- Cognitive radio and spectrum sensing
- Broadband Wireless Access
- Cross Layer Design
- Mesh Networks
- Cooperative and Intermittent Networks
- Sensor Networks
- Nano-networks
- Test-beds and new applications

### Information Security

- Security primitives and algorithms
- Security of wireless and distribution networks
- Security of sensor networks
- Authentication and authorization
- Encryption
- Data integrity
- Information assurance

### Unconventional applications of Signal Processing

- Medical applications
- Financial modelling
- Data mining
- Forensic applications
- Traffic modelling
- Bio-signalling
- Molecular communications
- Inter and intra-cell communications

### Fixed networks

- Optical networks and switching
- Network architectures and equipment
- Programmable networks
- Peer-to-peer networking
- Test-beds and trials
- Network gaming
- New and enhanced services

### Communication theory and techniques

- Channel measurements and modelling
- Coding and modulation techniques
- MIMO - theory and trials
- Spread Spectrum and CDMA systems
- OFDM technology
- Space-time coding
- Diversity techniques
- Ultra Wide-Band Communications
- Antennas and propagation

### Multimedia signal processing

- Streamed multimedia applications
- Algorithms and implementations
- Image audio and video processing
- Error concealment techniques
- Management of multimedia services
- Test-beds and trials
- Multimedia games

### DSP algorithms and hardware implementations

- DSP implementation in hardware
- DSP algorithms
- Smart antennas and tracking
- Signal separation

### Ranging and Localization

- Indoor Positioning Technologies and Techniques
- Radio-based Positioning Systems
- Ranging and Localization Algorithms
- Vehicle/Robot Navigation
- Hybrid Positioning and Communication
- RFID Localization/Communication
- UWB Ranging and Localization



### **Important Dates:**

- **Full Paper Submission Deadline:**  
**30 June 2010**
- **Notification of acceptance:**  
**15 September 2010**
- **Camera-Ready Copy:**  
**15 October 2010**
- **Registration:**  
**15 October 2010**

### International Advisory Committee

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### **For further information please contact:**

**Prof. Tad Wysocki**  
**E-mail: [twysocki2@unl.edu](mailto:twysocki2@unl.edu)**

**To submit your manuscript, please go to <http://icspcs2010.trackchair.com/>**

# Program of the 4<sup>th</sup> International Conference on Signal Processing and Communication Systems

Gold Coast, Australia, 13-15 December 2010

## Monday, 13 December 2010

8:00 a.m. – 9:00 a.m.	<i>Registration</i>
9:00 a.m. – 9:05 a.m.	<b>Official Opening</b>
9:05 a.m. – 10:35 p.m.	<b>Session 1 – Communication Theory and Techniques 1</b>
10:35 a.m. – 11:00 a.m.	<i>Coffee Break</i>
11:00 a.m. – 12:30 p.m.	<b>Session 2 – DSP Algorithms and Hardware Implementations</b>
12:30 p.m. – 1:30 p.m.	<i>Lunch</i>
1:30 p.m. – 3:00 p.m.	<b>Session 3 – Communication Theory and Techniques 2</b>
3:00 p.m. – 3:30 p.m.	<i>Coffee Break</i>
3:30 p.m. – 5:00 p.m.	<b>Session 4 – Wireless Networking 1</b>
6:00 p.m. – 7:00 p.m.	<i>Cocktail Reception</i>

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## Tuesday, 14 December 2010

9:00 a.m. – 10:30 a.m.	<b>Session 5 – Key Note Lecture and Internet</b>
10:30 a.m. – 11:00 a.m.	<i>Coffee Break</i>
11:00 a.m. – 12:30 p.m.	<b>Session 6 – Communication Theory and Techniques 3</b>
12:30 p.m. – 1:30 p.m.	<i>Lunch</i>
1:30 p.m. – 2:30 p.m.	<b>Poster Session 1 – Communication Systems</b>
2:50 p.m. – 3:50 p.m.	<b>Poster Session 2 – Signal Processing</b>
3:00 p.m. – 3:30 p.m.	<i>Coffee Break</i>
4:10 p.m. – 5:10 p.m.	<b>Poster Session 3 – Wireless Systems</b>
7:00 p.m. – 11:00 p.m.	<i>Banquet</i>

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## Wednesday, 15 December 2010

9:00 a.m. – 10:30 a.m.	<b>Session 7 – Wireless Networking 2</b>
10:30 a.m. – 11:00 a.m.	<i>Coffee Break</i>
11:00 a.m. – 12:30 p.m.	<b>Session 8 - Communication Theory and Techniques 4</b>
12:30 p.m. – 1:30 p.m.	<i>Lunch</i>
1:30 p.m. – 3:00 p.m.	<b>Session 9 – Digital Signal Processing</b>
3:00 p.m. – 3:30 p.m.	<i>Coffee Break</i>
3:30 p.m. – 5:00 p.m.	<b>Session 10 – Wireless Networking 3</b>

**End of the Conference**

## Session 1 – Communication Theory and Techniques 1

Chair: Prof. Tadeusz A Wysocki

1. 2D Mobile-to-Mobile Wireless Channel Model, *Prasad T Samarasinghe, Tharaka Anuradha Lamahewa, The Australian National University; Thushara D. Abhayapala, WSP,NICTA; Rodney A. Kennedy, The Australian National University*
2. A Generalized Method for the Design of Ergodic Sum-of-Cisoids Simulators for Multiple Uncorrelated Mobile Fading Channels, *Carlos A. Gutierrez, Universidad Panamericana; Matthias Pätzold, University of Agder*
3. A Reduced Complexity Chip-Level SOR-SIC Multiuser Detector for Long-Code CDMA Systems, *Abdelouahab Bentrchia, King Saud University; Azzedine Zerguine, KFUPM; M. Benyoucef, Batna University*
4. Accurate Approximations of BER for DQPSK Transmission via Least Squares Estimation of the Marcum Q-function, *Sharon Lee, University of Queensland*
5. An Iterative Parallel OFDM Demodulation for Fast Time-Varying Fading Channels, *Satoshi Denno, Kyoto University*

## Session 2 – DSP Algorithms and Hardware Implementations

Chair: TBA

1. Null-steering Beamforming for Cancellation of Co-channel Interference in CDMA Wireless Communication System, *Md. Rajibur Rahaman Khan, Vyacheslav Tuzlukov, Kyungpook National University*
2. Ultra-Wideband Spatio-Temporal Channel Sounding with Use of an OFDM Signal in the Presence of Narrowband Interference, *Daisuke Sugizaki, Wireless Systems Laboratory, Tokyo Denki University; Naohiko Iwakiri, Takehiko Kobayashi, Tokyo Denki University*
3. Generalized Cauchy Distribution (GCD)-Based Score Functions for a Fast and Flexible Subband Decomposition ICA, *Marko Kanadi, The University of Electro-Communications; Muhammed Tahir Akhtar, The University of Electro-Communications, Chofu, Tokyo; Wataru Mitsuhashi, The University of Electro-Communications*
4. Low Complexity FPGA-Implementation of a Reconfigurable SIC Multiuser Detector for Wireless Applications, *Tariq Alshawi, King Saud University; Abdelouahab Bentrchia, King Saud University; Mohamed Elnamaky, King Saud University; Saleh Alshebeili, King Saud University (KSU)*
5. Using In-Air Acoustic Vector Sensors for Tracking Moving Speakers, *Muawiyath Shujau, Christian Ritz, University of Wollongong; Ian Burnett, RMIT University*
6. Blind Identification and Real-Time Calibration of Memory Nonlinearity Based on RLS Algorithm, *Pengliang, HuaZhong University of Science and Technology; Mahong, HuaZhong University of Science and Technology*

## Session 3 – Communication Theory and Techniques 2

Chair: TBA

1. Another Approach to Save Energy in OFDM Systems, *Xiaoying Shao, C.H. Slump, University of Twente*
2. Efficient BER Computation of LDPC Coded SC/MRC Systems over Rayleigh Fading, *Beng Soon Tan, Kwok Hung Li, Kah Chan Teh, Nanyang Technological University*
3. Iterative Decoding on Soft Information for Virtual Layered Space-Frequency Receivers, *Jun Imamura, Satoshi Denno, Daisuke Umehara, Masahiro Morikura, Kyoto University*
4. Layered Steered Space Time Codes in Multi-User Systems, *Ahmad S. Salim, King Fahd University of Petroleum and Minerals; Salam A. Zummo, King Fahd University of Petroleum and Metal; Samir Al-Ghadhban, KFUPM*
5. Low Complexity Channel Shortening Technique Applied to MB-OFDM UWB Systems, *Karima RAGOUBI, IETR, INSA Rennes; Maryline Helard, INSA (Rennes); Matthieu Crussière, Institute of Electronics and Telecommunications of Rennes*

## Session 4 – Wireless Networking 1

### Chair: TBA

1. A Predictive Network Resource Allocation Technique for Cognitive Wireless Networks, *Alia Asheralieva, University of Newcastle; Jamil Khan, The University of Newcastle, Australia; Kaushik Mahata, University of Newcastle; Eng Hwee Ong, University of Newcastle, Australia*
2. A Protocooperation-based Sleep-Wake Architecture for Next Generation Green Cellular Access Networks, *Md. Farhad Hossain, The University of Sydney; Kumudu Munasinghe, Abbas Jamalipour, University of Sydney*
3. Coarse-Fine Spectrum Sensing for Cognitive Radio for Minimum Sensing Time, *Brendan Lawton, Colin Murphy, University College Cork*
4. Coded Packet Immediate Access for Contention-based Wireless Relay Networks, *Daisuke Umehara, Kyoto University; Chun-Hsiang Huang, NTT Corporation; Satoshi Denno, Masahiro Morikura, Kyoto University; Takatoshi Sugiyama, NTT Corporation*
5. Cooperative Agent-based SANET Architecture for Healthcare, *Zenon Chaczko, Chris Chiu, Anup Kale, University of Technology Sydney*

## Session 5 – Key Note Lecture and Internet

### Chair: TBA

1. **Key Note:** Towards a Low-Complexity Dynamic Decode-and-Forward Relaying Protocol, *Parastoo Sadeghi, The Australian National University*
2. Comparison of Proactive and Reactive Methods for IP Fast Restoration using Localization Algorithm, *Kazuya Suzuki, Masahiro Jibiki, NEC Corporation; Kenichi Yoshida, University of Tsukuba*
3. A video traffic modeling tool for simulation-based performance evaluation studies, *Estela Sousa, University of Vigo*
4. What's your Contribution? An online system for assessing each member's participation in team based projects, *Peter Vial, Zhihao Zhang, Montserrat Ros, Christian Ritz, Geoff Trott, University of Wollongong*

## Session 6 – Communication Theory and Techniques 3

### Chair: TBA

1. Mutual Coupling Compensation of Compact Antenna Array for Direction-of-Arrivals Estimations, *Hoi-Shun Lui, Chalmers University of Technology; Hon Tat Hui, Dep. of Electrical and Computer Eng. National University of Singapore*
2. Network and Erasure Coding for Improved Packet Delivery, *Scott Melvin, Jacek Ilow, Dalhousie University*
3. Novel ternary line codes employing trellis-coded modulation, *Mussawir Hosany, University of Mauritius; Nasseer Khodabux, Central Electricity Board*
4. On the Impact of Redundant Subcarrier Energy Optimization in UW-OFDM, *Christian Hofbauer, Mario Huemer, University of Klagenfurt; Johannes B. Huber, University of Erlangen-Nuremberg*
5. Self-Encoded Spread Spectrum for GNSS Applications, *Austin Steiner, University of Nebraska-Lincoln; Lim Nguyen, University of Nebraska Lincoln*
6. General Order Antenna Selection in MIMO Cooperative Relay Network, *Arun Gurung, RMIT University; Fawaz Al-Qahtani, Texas A & M University at Qatar; Zahir Hussain, RMIT University*

## Session 7 – Wireless Networking 2

### Chair: TBA

1. Joint Source and Relay Optimization for Multiuser MIMO Relay Communication Systems, *Muhammad R. A. Khandaker, Yue Rong, Curtin University of Technology*
2. Energy Consumption Analysis of Flow-specific Medium Access and the Role of Probabilistic Preamble Sampling in Energy and Delay Performance, *Owens Walker, Murali Tummala, John McEachen, Naval Postgraduate School*

3. Enhancement of IEEE 802.11 and Network Coding for Single-Relay Multi-User Wireless Networks, *Daisuke Umehara, Kyoto University; Chun-Hsiang Huang, NTT Corporation; Satoshi Denno, Kyoto University; Masahiro Morikura, Graduate School of Informatics, Kyoto-University; Takatoshi Sugiyama, NTT Access Network Service Systems Laboratories*
4. Jointly Optimizing Power Allocation and Relay Positions for Multi-Relay Regenerative Relaying With Relay Selection, *Xiaojuan Zhang, Yi Gong, Nanyang Technological University*
5. Nonsmooth Optimization-Based Beamforming in Multiuser Wireless Relay Networks, *Anh Phan, H. D. Tuan, Ha Hoang Kha, University of New South Wales; Ha H. Nguyen, University of Saskatchewan*

## Session 8 - Communication Theory and Techniques 4

**Chair: TBA**

1. On the Statistical Properties of the Capacity of OSTBC Nakagami-Lognormal MIMO Channels, *Gulzaib Rafiq, Matthias Pätzold, University of Agder*
2. Particle Filter for Joint Blind Carrier Frequency Offset Estimation and Data Detection, *Ali Arshad Nasir, Australian National University; Salman Durrani, Rodney A. Kennedy, The Australian National University*
3. Proactive Spectrum Sensing with Probing Power Control in Cognitive Radio, *Ian Bajaj, Yi Gong, Xiaojuan Zhang, Nanyang Technological University*
4. Soft Input Decoding of Reed Solomon Codes with Miscorrection Detection and Avoidance, *Obaid ur Rehman, Natasa Zivic, University of Siegen*
5. Spatial Correlation in the Broadcast MU-MIMO UWB System Using a Pre-Equalizer and Time Reversal Pre-Filter, *Trung Kien Nguyen, Hieu Nguyen, Feng Zheng, Thomas Kaiser, Leibniz University of Hannover*

## Session 9 – Digital Signal Processing

**Chair: TBA**

1. Blind Deconvolution of Natural Images using Segmentation Based CMA, *Pradeepa D. Samarasinghe, Rodney A. Kennedy, The Australian National University*
2. Frequency Prioritised Queuing in Real-Time Electrocardiograph Systems, *Omar Hashmi, Sandun Kodituwakku, Salman Durrani, The Australian National University*
3. UWB Microwave Monopulse Radar System for Breast Cancer, *Marek E Bialkowski, The University of Queensland; Yifan Wang, Amin Abbosh, University of Queensland*
4. Finite-Resolution Receiver Performance for IR-UWB Target Detection, *Liu Kaikai, Xu Hao, Chen Weidong, University of Science and Technology of China*
5. Vowel Recognition from Continuous Articulatory Movements for Speaker-Dependent Applications, *Jun Wang, Jordan R. Green, Ashok Samal, Tom D. Carrell, University of Nebraska-Lincoln*

## Session 10 – Wireless Networking 3

**Chair: TBA**

1. Performance of Successive Broadcasting Scheme for a Multiuser Downlink MIMO System Operating Under Antenna Mutual Coupling Conditions, *Feng Wang, University of Queensland; Marek E Bialkowski, The University of Queensland*
2. Distributed Coexistence-aware Channel Allocation for Future Unlicensed High-Rate WPAN, *Ayman Khalil, IETR INSA; Matthieu Crussière, Institute of Electronics and Telecommunications of Rennes; Jean-Francois Helard, INSA Rennes*
3. Socionomics inspired data routing in Wireless Sensor Networks, *Sourendra Sinha, University of Technology, Sydney; Zenon Chaczko, University of Technology Sydney*
4. Topological Comparison Based Approach of Detecting Wormhole Attacks in OLSR Protocol, *Mohammad Alam, Dr. King-Sun Chan, Curtin University of Technology*
5. The Use Of Altitude Constraints Within Mining Navigation, *Garry Einicke, CSIRO*

## Poster Session 1 – Communication Systems

1. A simple thin antenna with an enhanced gain for MB-OFDM UWB systems, *Yogeshwar Ranga, Karu P. Esselle, Macquarie University; Dr Andrew Weily, CSIRO ICT*
2. Adaptive Channel Assignment and Pilot-Less Channel Tracking Method for OFDMA Systems, *Kazumitsu Sakamoto, Osamu Muta, Yoshihiko Akaiwa, Kyushu University; K. Giridhar, IIT Madras; Hiroshi Furukawa, Kyushu University*
3. Adaptive Power Allocation for Multi-hop Regenerative Relaying OFDM Systems, *Xiaojuan Zhang, Yi Gong, Nanyang Technological University*
4. Analog Realisation of Iterative Threshold Decoding based on High-Order Recurrent Neural Networks, *Mohamad Mostafa, Werner G. Teich, Juergen Lindner, University of Ulm*
5. BER Performance of MIMO System Employing Fast Antenna Selection Scheme Under Imperfect Channel State Information, *Feng Wang, University of Queensland; Xia Liu, School of ITEE, University of Queensland; Marek E Bialkowski, The University of Queensland*
6. Capacity Analysis of MIMO Channel with Line-of-Sight and Reflected Paths for Millimeter-Wave Communication, *Seung Joon Lee, Kangwon National University; Mun Geon Kyeong, Woo Yong Lee, ETRI*
7. Channel-Independent Symbol Stream Recovery for Orthogonal Space-Time Block-Coded Signals, *John Kitchen, Defence Science & Technology Organisation*
8. Characteristics of Ricean K-factor in Wideband Indoor Channels at 3.7 GHz, *Jae Joon Park, Myung Don Kim, Hyun Kyu Chung, ETRI*
9. Classification of Digital Modulated Signals based on Time Frequency Representation, *Nadya Haq, Curtin University of Technology*
10. Distributed Orthogonal Space-Time Block codes with Adaptive Diversity Gain, *Yiyong Chin, Dhammika Jayalath, Queensland University of Technology; Bouchra Senadji, Queensland University of Technology, Brisbane, Australia*
11. Enhanced Two-Dimensional Data-aided Channel Estimation for TDS-OFDM, *Ming LIU, Institute of Electronics and Telecommunications of Rennes (IETR/INSA); Matthieu Crussière, Institute of Electronics and Telecommunications of Rennes; Jean-Francois Helard, INSA Rennes*
12. Increasing Signaling Power not Necessarily Improves Channel Capacity, *Rudolf Mathar, Anke Schmeink, RWTH Aachen University*
13. Iterative MMSE Interference Canceller for Cooperative Diversity MIMO Relay Network, *Abdaoui Abderrazak, Eric Chatelet, University of technology of Troyes; Abderrahim Doumar, University of Technology of Troyes*
14. Novel MMSE Design for Joint MIMO Processing in Analog Network Coding Schemes, *Enoch Lu, Jialing Li, I-Tai Lu, Polytechnic Institute of New York University*
15. On the Use of TCH Sequences for Synchronization and Channel Estimation in MIMO Systems, *João Carlos Silva, ISCTE/Instituto de Telecomunicações; Eunice Gomes, Hugo Silva, Iscte; Rui Dinis, IST, Tech. Univ. of Lisbon; Nuno Souto, ISCTE/Instituto de Telecomunicações*
16. On the use of Time Reversal for Digital Communications with Non-Impulsive Waveforms, *Thierry Dubois, Institut of Electronics and Telecommunications of Rennes (IETR); Maryline Helard, INSA (rennes); Matthieu Crussière, Institute of Electronics and Telecommunications of Rennes*
17. Performance analysis of Clustered DFT-Spread OFDM for LTE-Advanced Uplink MIMO, *Ok-Sun Park, Dae-Ho Kim, ETRI; Jaemin Ahn, University of Chungnam National*
18. Performance of Hybrid ARQ on Dual-Branch Diversity Receiver in Rayleigh Fading Channel, *Ghaida AL-Suhail, University of Basrah, Rodney A. Kennedy, The Australian National University*
19. Quantifying the Wave-Effect of Irregular LDPC codes based on Majority-Based Hard-Decoding, *Asad Mahmood, CASE*
20. Robust MMSE Transceiver Designs for Uplink MIMO Systems Subject to Arbitrary Linear Equality Power Constraints, *Enoch Lu, I-Tai Lu, Jialing Li, Polytechnic Institute of New York University*

21. Spectrum Sharing of OFDM Signals for Cognitive Radios, *Krzysztof Malon, Jerzy Lopatka, Military University of Technology*
22. STBC-MIMO Network Coding with Adaptive Modulation on Asymmetric Traffic and Channel, *Kosuke Fukuda, Fumie Ono, Yokohama National University*
23. Throughput of CSMA in Rice Fading Channels, *Elvio J. Leonardo, State University of Maringa; Michel Yacoub, State University of Campinas*
24. Trellis-Coded Multiple-Access Using Chirp Signalling, *Ryan Balsdon, Jacek Ilow, Dalhousie University*
25. Use of Time Frequency Analysis for Spectrum Sensing in Cognitive Radios, *Farrukh Javed, CASE Islamabad; Asad Mahmood, CASE*
26. UWB Analog Space Time Coding Systems Using A Genetic Algorithm Based Adaptive Rake Receiver, *Said E. El-Khamy, Faculty of Engineering, Alexandria University; Ehab F. Badran, Amira Zaki, Arab Academy for Science and Technology*
27. Wideband MIMO Channel Measurements in Indoor Hotspot Scenario at 3.705GHz, *Myung-Don Kim, Heon Kuk Kwon, Bumsoo Park, Jae Joon Park, Hyun Kyu Chung, ETRI*

## Poster Session 2 – Signal Processing

1. A Novel Approach for MFCC Feature Extraction, *Md Afzal Hossan, Sheeraz Memon, Mark A Gregory, RMIT University*
2. Efficient Packet Classification on FPGAs also Targeting at Manageable Memory Consumption, *Nitesh Guinde, NJIT; Sotirios G. Ziavras, New Jersey Institute of Technology; Roberto Rojas-Cessa, NJIT*
3. A Novel Bipolar Time-Spread Echo Hiding Based Watermarking Method for Stereo Audio Signals, *Iynkaran Natgunanathan, Yong Xiang, Deakin University*
4. A Secured Chaos Encrypted Mode-S Aircraft Identification Friend or Foe (IFF) System, *Alaa Hafez, Waleed El-Masry, Amr Mokhtar, El-Sayed Abdol-Moaty, Alexandria University*
5. Digital Video Authentication with Motion Vector Watermarking, *Aaron Sharp, James Devaney, University of Nebraska Lincoln; Austin Steiner, University of Nebraska-Lincoln; Dongming Peng, University of Nebraska Lincoln*
6. Image Authentication Using Fractal Watermarking and Chaos Theory, *Koroush Kiani, Mehdi Arian, University of Semnan; Vahid Soleimani, University of Razi*
7. A Fast and Adaptive Boundary Matching Algorithm for Video Error Concealment, *Ghazaleh, Panahandeh*
8. An unequal error protection scheme employing convolutional codes and asymmetric 8PSK modulation for robust transmission of H.264/AVC video in wireless channels, *Mussawir Hosany, University of Mauritius; Sunil Kumar, Santosh Nagaraj, San Diego State University*
9. Comparative Evaluation of Speech Enhancement Methods for Robust Automatic Speech Recognition, *Kuldip Paliwal, Signal Processing Laboratory, Griffith University.; James Lyons, Stephen So, Anthony P. Stark, Kamil Wojcicki, Signal Processing Laboratory, Griffith University*
10. Effects of Compression and Window Size on Remote Acoustic Identification using Sensor Networks, *Ruben Gonzalez, Griffith University*
11. Efficient Medical Image Transformation Method for Lossless Compression by Considering Real Time Applications, *Farshid Sepehrband, Mohammad Mortazavi, Seyed Ghorshi, Jeiran Choupan, Sharif University of Technology, International Campus*
12. Efficient Sub-Pixel Interpolation And Low Power VLSI Architecture For Fractional Motion Estimation in H.264/AVC, *Obianuju Ndili, Tokunbo Ogunfunmi, Santa Clara University*
13. Error Resilience Performance Evaluation of H.264 I-frame and JPWL for Wireless Image Transmission, *Khalid Alajel, University of Southren Queensland*
14. Image Inpainting Using Iterative Methods, *Neda B.Marvasti, IEEE student member; F. Marvasti, Sharif University; Ali Pourmohammad, Amirkabir University of Technology*
15. Maximum Likelihood Estimation of Time Delays in Multipath Acoustic Channel - Performance versus Number of Multipath and Noise, *Tarkeshwar Prasad Bhardwaj, Ravinder Nath, National Institute of Technology, Hamirpur*
16. Novel Head Related Transfer Function Model for Sound Source Localisation, *Dumidu Talagala, Thushara Abhayapala, Australian National University*

17. Preference for 20-40ms window duration in speech analysis, *Kuldip Paliwal, Signal Processing Laboratory, Griffith University.; James Lyons, Kamil Wojcicki, Signal Processing Laboratory, Griffith University*
18. Test pattern based evaluation of ringing and blur in JPEG and JPEG2000 compressed images, *Dr. Amal Punchihewa, Massey University; Alexander Keerl, HAWK - University of Applied Sciences and Arts, Goettingen, Germany*
19. Using Long-Term Information to Improve Robustness in Speaker Identification, *James O'Connell, Signal Processing Laboratory, Griffith University; James G. Lyons, Griffith University; Kuldip Paliwal, Signal Processing Laboratory, Griffith University.*
20. A New UWB Positioning and Ranging Technique to Fix the Error due to Clock Offset, *Jae-wook Park, Yong-sung Choi, Won-cheol Lee, Soongsil University*
21. An Efficient Algorithm for Non-Rigid Image Registration, *Guanglei Wang, Hoi-Shun Lui, Mikael Persson, Chalmers University of Technology*
22. Frequency Domain Method for Photoacoustic Tomography with an Arbitrary Detection Geometry, *S.M. Akramus Salehin, The Australian National University; Thushara Abhayapala, Australian National University*
23. Internal Structure Identification of Random Process by Using Principal Component Analysis, *Mengqiu (Karan) zhang, Rodney A. Kennedy, Wen Zhang, Thushara D. Abahayapala, The Australian National University*
24. Time-Frequency Domain Fundamental Frequency Estimation and Localization of Quasiperiodic, Pulsatic Signal in a Correlated Mixture, *S.M. Akramus Salehin, The Australian National University; Thushara Abhayapala, Australian National University*
25. Towards Three-Dimensional Fusion of Infrared Guidance Measurements for Biopsy Procedures: Some Preliminary Results and Design Considerations, *Behrooz Sharifi, Dr. John Leis, University of Southern Queensland*
26. Ultra-wideband Technology-based Ranging Platform with Real-time Signal Processing, *Michal M. Pietrzyk, Fraunhofer Institute for Integrated Circuits*

### Poster Session 3 – Wireless Systems

1. A new approach to design a WLAN-based positioning system, *Zheng You, Oumaya Baala, UTBM; Alexandre Caminada, Université de Technologie Belfort-Montbéliard*
2. Analysis of RSS Improved RFID Estimation, *Majid Alotaibi, Konstanty S Bialkowski, Adam Postula, The University of Queensland*
3. Degree of Inconsistency: Iterative Localization with Error Control, *Liu Kezhong, Zhang Jinfen, Yan Xinping, Wuhan University of Technology*
4. Geolocation of WiMAX Subscriber Stations Based on the Timing Adjust Ranging Parameter, *Don E. Barber, John McEachen, Naval Postgraduate School*
5. Underwater RSS-based Distance Measurement: An Application of Lambert W Function, *Majid Hosseini, Universiti Sains Malaysia; Hassan Chizari, Universiti Teknologi Malaysia; Chai Kok Soon, Rahmat Budiarto, Universiti Sains Malaysia*
6. A Cluster Based Time Division Multiple Access Scheme for Surveillance Network using Directional Antennas, *Chukwuchebem Orakwue, Yamin Al-Mousa, Rochester Institute Of Technology; Nirmala Shenoy, Rochester Institute of Technology; Nicholas Martin, Rochester Institute Of Technology*
7. A Joint Distributed Resource Management and Scheduling Scheme for Future UWB-based High-Rate WPAN, *Ayman Khalil, Hassan Ali-Ahmad, IETR INSA; Matthieu Crussière, Institute of Electronics and Telecommunications of Rennes; Jean-Francois Helard, INSA Rennes*
8. A Low Complexity Scheduling for Maximizing Satisfied Users in Wireless Networks, *Carlos Eduardo Uc Rios, CINVESTAV-IPN; Domingo Lara-Rodriguez, CINVESTAV*
9. An Interference Avoidance Method for Cognitive Radio in White Space, *Duy Quoc Vo, Joo-pyoung Choi, Khoa Chuyen Huynh, Won Cheol Lee, Soongsil University*
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