2012 6th International Conference on Signal Processing and Communication Systems

(ICSPCS 2012)

Gold Coast, Australia
12 – 14 December 2012

Contents

Session 1 – Wireless Communications 1

Session 2 – Signal Processing for Multimedia 1

Session 3 – Information and Network Security

Session 4 – Localisation and Tracking

Session 5 - Communication Theory

5.1. *Soft Iterative Interference Cancellation with Successive Over Relaxation for Digital Transmission Schemes based on Multiple Sets of Orthogonal Spreading Codes*, Werner G. Teich (Ulm University, Germany), Paul Wallner (Ulm University, Germany) """382

5.2. *OFDM Performance with Odd-Even Quantisation in Cartesian ΔΣ Upconverters*, Sirmayanti Sirmayanti (Victoria University Melbourne Australia & The State Polytechnic of Ujung Pandang, Australia), Vandana Bassoo (University of Technology Mauritius, Mauritius), Horace King (Victoria University, Australia), Mike Faulkner (Victoria University, Australia) """"387

5.3. *DMT Performance Analysis of a Symmetric Two-user Interference Channel with Multiple Full-duplex Relays*, Yongxu Hu (Nanyang Technological University, Singapore), Kah Chan Teh (Nanyang Technological University, Singapore), Kwok Hung Li (Nanyang Technological University, Singapore) """""392

5.4. *A Low-Latency Turbo Decoding Scheme for Diversities-based Communication Systems*, Shen-Ming Chung (National Cheng-Kung University, Taiwan), Ming-Der Shieh (National Cheng-Kung University, Taiwan), Kuo Lung-Chih (Industrial Technology Research Institute (ITRI), Taiwan), Hsaio-Hui Lee (Industrial Technology Research Institute, Taiwan) """"397

Session 6 – Wireless Communications 2

6.1. *Effect of UWB Multiple Access Schemes on the Power Parameters of Multiuser Interference*, Joon-Yong Lee (Handong University, Korea), ChangKyeong Kim (Handong University, Korea) """"3: 3

6.2. *Correcting Refractive Dilution of Precision in Wireless Network Geolocation Estimates*, Jason Q McClintic (Naval Postgraduate School, USA), Murali Tummala (Naval Postgraduate School, USA), John C. McEachen (Naval Postgraduate School, USA) """"3; 2

6.3. *D.C. Iterations for SINR Maximin Multicasting in Cognitive Radio*, Anh Huy Phan (University of New South Wales, Australia), Hoang D. Tuan (University of Technology, Sydney, Australia), Ha H Kha (University of Technology Sydney, Australia) """3; 8

6.4. *Resource Allocation for AF Cooperative Communications Using Stackelberg Game*, Hanan Al-Tous (United Arab Emirates University, UAE), Imad Barhumi (United Arab Emirates University, UAE) """423

6.5. *Comparative study of transmit weight designs for nonregenerative Multiuser MIMO downlink relay system*, Cong Li (Nagoya Institute of Technology & Graduate School of Engineering, Japan), Yasunori Iwanami (Nagoya Institute of Technology, Japan) """429

Session 7 – Medical Applications

7.1. *Sampling, Quantization and Computational Aspects of the Quadrature Lock-In Amplifier*, John Leis (University of Southern Queensland, Australia), Christopher J Kelly (University of Southern Queensland, Australia), David Buttsworth (University of Southern Queensland, Australia) """435

7.2. *QRST Cancellation in ECG Signals During Atrial Fibrillation: Zero-Padding versus Time Alignment*, Shima Gholinezhadasnefestani (University of Ulster, United Kingdom), Omar Escalona (University of Ulster, United Kingdom),Kimia Nazarzadeh (University of Pune, Australia), Vivek Kodoth (The Heart Centre Royal Victoria Hospital, Belfast- Northern Ireland, UK., United Kingdom), Ernest Lau (Royal Hospitals, United Kingdom), Ganesh Manoharan (Royal Hospitals, United Kingdom) """442

7.3. *Empirical Study of Remote Respiration Monitoring Sensor Using Wideband System*, Nao Shimomura (The University of Kitakyushu, Japan), Mitsugu Otsu (The University of Kitakyushu, Japan), Akihiro Kajiwara (University of Kitakyushu, Japan) """449

7.4. *Infrared Camera Imaging Algorithm to Augment CT-Assisted Biopsy Procedures*, Behrooz Sharifi (University of Southern Queensland, Australia), John Leis (University of Southern Queensland, Australia) """454

Session 8 - Networks and Protocols

Session 9 – Signal Processing for Multimedia 2

Session 10 – Signal Processing for Communications

Poster Session 1 – Communication Systems - 1

Poster Session 2 – Signal Processing

Nacional Autonoma de Mexico, Facultad de Ingenieria, Mexico), Bohumil Psenicka (National Autonomous University of Mexico, Mexico)

Poster Session 3 – Signal Processing

P3.6. *Low-Complexity Interference-Aware Single Relay Selection in Multi-Source Multi-Destination* "'""'6: 7
Cooperative Networks, Dawoon Lee (Yonsei University, Korea), Sooyong Choi (Yonsei University, Korea)

P3.7. *Improvement of Scatter Search Using Bees Algorithm*, Ali Makki Sagheer (College of Computer - "'""'6; 2 University of Anbar, Iraq), Ahmed Sadiq (Computer Science, Iraq), Mohammed Salah Ibrahim (Computer Science & Anbar University Computer College Computer Science Dept, Iraq)

P3.8. *A Behavior Analysis Based Mobile Malware Defense System*, Dai Fei Guo (Siemens Corporate "'""'6; 9 Technology, P.R. China), Ai-Fen Sui (Siemens Corporate Technology, P.R. China), Tao Guo (Siemens, P.R. China)

P3.9. *Novel Dynamic Shadow Approach for Fault Tolerance in Mobile Agent Systems*, Rahul Hans (D A V'"""'725 Institute of Engineering and Technology, India), Ramandeep Kaur (Guru Nanak Dev University, Amritsar, India)

P3.10. *Polynomial approximations for bit error probability for 4-DPSK transmission*, Sharon Lee (University'"""'72; of Queensland, Australia)

P3.11. *Reliable Cooperative Wideband Spectrum Sensing based on Entropy estimation*, Srinu Sesham'"""'735 (Research & Hyderabad Central University, India), Samrat Sabat (University of Hyderabad, India), Siba Kumar Udgata (University of Hyderabad, India)

P3.12. *A Fuzzy Logic Node Relocation Model in WSNs*, Yashar Maali (University of Technology Sydney, '"""'73: Australia), Ali Rafiei (University of Technology Sydney, Australia), Mehran Abolhasan (University of Technology Sydney, Australia), Daniel Franklin (University of Technology Sydney, Australia), Farzad Safaei (ICT Research Institute, University of Wollongong, Australia)