2012 11th International Conference on Information Science, Signal Processing and Their Applications

(ISSPA 2012)

Montreal, Quebec, Canada
2-5 July 2012

Volume 1
Pages 1-786

IEEE Catalog Number: **CFP12450-PRT**
ISBN: **978-1-4673-0381-1**

Q&A, Discussions

Coffee/Tea Break/Discussions

TA-P1 (Poster): Image and Vision Processing P1

TA-P2 (Poster): Biologically-Inspired Multimedia Signal Processing

TA-P3 (Poster): Speech Signal Processing P1

TA-P4 (Poster): Pattern Recognition, Machine Learning and Applications P1

TA-P5 (Poster): Biomedical Signal and Image Processing P1

pp. 65-70

A Passive DSP Approach to Fetal Movement Detection for Monitoring Fetal Health
Mohamed Salah H. Khlif (University of Queensland, Australia); Boualem Boashash (Qatar University, Doha & University of Queensland, Brisbane, Australia); Siamak Layeghy (The University of Queensland, Australia); Taoufik Ben-Jabeur (Qatar University, Qatar); Paul B Colditz (University of Queensland, Australia); Christine East (University of Melbourne, Australia)
pp. 71-76

A Wireless Reconfigurable System for Falls Detection
Mehdi Neggazi (Ecole Nationale Polytechniques, Algeria); Abbes Amira (Qatar University, Qatar); Hamami Latifa (National Polytechnic School of Algiers, Algeria)
pp. 77-82

Efficient Color Space-Based Compression Scheme for Endoscopic Images
Atahar Mostafa (University of Saskacthewan, Canada); Tareq Hasan Khan (University of Saskatchewan, Canada); Seok-Bum Ko (University of Saskatchewan, Canada); Khan A Wahid (University of Saskatchewan, Canada)
pp. 83-86

Radiological Image Classification Using HMMs and Shape Contexts
Alaidine Ben Ayed (University of Moncton, Canada); Sid-Ahmed Selouani (Université de Moncton Campus of Shippagan, Canada); Mustapha Kardouchi (University of Moncton, Canada); Yacine Benahmed (INRS-EMT, Canada)
pp. 87-91

Assessing Entropy and Fractal Dimensions as Discriminants of Seizures in EEG Time Series
Ahmed El-Kishky (The University of Tulsa, USA)
pp. 92-96

Learning Sparse Dictionary for Long-term Biomedical Signal Classification and Clustering
Shengkun Xie (Ryerson University, Canada); Sri Krishnan (Ryerson University, Canada)
pp. 1118-1123

A Novel Multimodal Compression Scheme Based on a Spiral Insertion Function in the Wavelet Domain
Larbi Boubchir (Qatar University College of Engineering, Qatar); Tahar Brahimi (Université Paris-Est Créteil (UPEC), France); Régis Fournier (Université Paris-Est, France); Amine Naït-ali (Université Paris-Est Créteil (UPEC), France)
pp. 97-102

Mid-session break

TA-O1 (Oral): Speech Signal Processing 1

Application of a Locality Preserving Discriminant Analysis Approach to ASR
Vikrant Singh Tomar (McGill University, Canada); Richard Rose (McGill University, Canada)
pp. 103-107

TA-O2 (Oral): Signal processing for Communications 1

TA-O3 (Oral): Image & Vision Processing 1

Lunch Break

Assembly and Introductions

TB-O1 (Oral): Biomedical Signal and Image Processing 1

TB-O2 (Oral): Advances in Time-Frequency Analysis and Its Applications

TB-O3 (Oral): Signal Processing for Communication, Radar and Sonar

Coffee/Discussions

TC-O1 (Oral): Pattern Recognition, Machine Learning and Applications 1

TC-O2 (Oral): Instantaneous Frequency, Estimation Methods and Applications

TC-O3 (Oral): Information Processing

Assembly

Introductions

WK-1: Keynote speech 2

Q&A, discussions

Coffee/Tea Break/Discussions

WA-P1 (Poster): Pattern Recognition, Machine Learning and Applications P2

WA-P2 (Poster): Biomedical Signal and Image Processing P2

WA-P3 (Poster): Speech Signal Processing P2

WA-P4 (Poster): Signal Theory, Methods and Algorithms P1

WA-P5 (Poster): Image & Vision Processing P2

Mid-session break

WA-O1 (Oral): Signal Theory, Methods and Algorithms 1

WA-O2 (Oral): Pattern Recognition, Machine Learning and Applications 2

ECG Signal Classification Using Support Vector Machine Based on Wavelet Multiresolution Analysis
Ayman Rabee (United Arab Emirates University, UAE); Imad Barhumi (United Arab Emirates University, UAE)
pp. 1319-1323

WA-O3 (Oral): Security, Multimedia & Data processing

Fuzzy Principal Component Analysis for Sensor Fusion
Ghada Elbanby (Menoufia University & Faculty of Electronic Engineering, Egypt)
pp. 442-447

Online Variational Finite Dirichlet Mixture Model and Its Applications
Wentao Fan (Concordia University, Canada); Nizar Bouguila (Concordia University, Canada)
pp. 448-453

On Efficient Decoding for the Fuzzy Vault Scheme
Hoi Ting Poon (Ryerson University, Canada); Ali Miri (Ryerson University & University of Ottowa, Canada)
pp. 454-459

On the Hardware Design and Implementation of a Chaos-Based RFID Authentication and Watermarking Scheme
Harold Chung (University of Ottawa, Canada); Ali Miri (Ryerson University & University of Ottowa, Canada)
pp. 460-465

Incorporating User Specific Normalization in Multimodal Biometric Fusion System
Bengherabi Messaoud (Centre de Developpement des Technologies Avancees, Algeria); Harizi Farid (Centre de Developpement des Technologies Avancess, Algeria); Guessoum Abderrezak (Blida University, Algeria); Mohamed Cheriet (Ecole de technologie superieure (University of Quebec), Canada)
pp. 466-471

Lunch Break

Assembly and Introductions

WB-O1 (Oral): Biomedical Signal and Image Processing 2

Real-Time Processing in Dynamic Ultrasound Elastography:A GPU-Based Implementation Using CUDA
Emmanuel Montagnon (University of Montreal, Canada); Sami Hissoiny (École polytechnique de Montréal, Canada); Philippe Després (Université de Montréal, Canada); Guy Cloutier (Ecole Polytechnique de Montreal, Canada)
pp. 472-477

WB-O2 (Oral): Speech Signal Processing 2

WB-O3 (Oral): Sparse Signal Analysis and Applications

Coffee/Discussions

WC-O1 (Oral): Image & Vision Processing 2

WC-O2 (Oral): Signal processing for Communications 2

WC-O3 (Oral): Signal Theory, Methods and Algorithms 2

WS-1: Banquet

Assembly

Introductions

THK-1: Keynote speech 3

Signal and Image Processing in Medical Nanorobotics: The Art of Tracking and Imaging Therapeutics Navigated in the Vascular Network Towards the Region to Be Treated

Sylvain Martel (Ecole Polytechnique Montreal, Canada)

pp. 611-617

Q&A, discussions

Coffee/Tea Break/Discussions

THA-P1 (Poster): Signal processing for Communications Systems P1

Superimposed Training Synchronization for Widely Linear Systems

Israel Arriaga-Trejo (Cinvestav-IPN & Intel Labs SIA/IPR, Intel Guadalajara, Mexico); Aldo Orozco (CINVESTAV, Mexico); Arturo Veloz-Guerrero (Intel Guadalajara Design Center, Mexico); Manuel Guzman-Renteria (Intel Guadalajara Design Center, Mexico)

pp. 618-623

Solving the Clustering Problem in MANETS Using SAT & ILP Techniques

Syed Zahidi (American University of Sharjah, UAE); Fadi Aloul (American University of Sharjah, UAE); Assim Sagahyroon (American University of Sharjah, UAE); Wassim El-Hajj (American University of Beirut, Lebanon)

pp. 624-629

Wavelength Independent Receiver for Low Cost and Reduced Complexity WDM DQPSK Systems

Emma Lazzeri (Scuola Superiore Sant'Anna & CNIT, Italy); Francesco Fresi (Scuola Superiore Sant'Anna, Italy); Marco Secondini (Scuola Superiore Sant'Anna, Italy); Lee Sang-Bae (Korea Institute of Science & Technology, Korea); Luca Potì (Consorzio Nazionale Interuniversitario per le Telecomunicazioni, Italy)

pp. 630-633

3-D Source Localization in Shallow Ocean with non-Gaussian Noise Using a Linear Array of Acoustic Vector Sensors

Zahra Madadi (Nanyang Technological University, Singapore); Gargeshwari V. Anand (Indian Institute of Science, India); A. Benjamin Premkumar (Nanyang Technological University, Singapore)

pp. 1353-1358

THA-P2 (Poster): Speech Signal Processing P3

THA-P3 (Poster): Signal Processing for Electric Power System

THA-P4 (Poster): Signal Theory, Methods and Algorithms P2

THA-P5 (Poster): Information Processing P1

Mid-session break

THA-O1 (Oral): Biomedical Signal and Image Processing 3

THA-O2 (Oral): Image & Vision Processing 3

THA-O3 (Oral): All-optical signal processing Invited Panel

pg. 1419

Lunch Break

Assembly and Introductions

THB-P1 (Poster): DSP Forum: Biomedical signal processing

THB-P2 (Poster): DSP Forum: Image processing

THB-P3 (Poster): DSP Forum: Communications

THB-P4 (Poster): DSP Forum: Implementation issues and methods

THB-P5 (Poster): DSP Forum: Radar and Target Tracking

THB-P6 (Poster): DSP Forum: Speech and audio processing

THB-P7 (Poster): DSP Forum: Signal processing & Applications

THC-ST1 (Poster): Student session: Image processing

THC-ST2 (Poster): Student session: Information and signal processing applications

Panel discussion

Closing and Award Ceremony

(Coffee/Tea/Refreshments served)