

# ISPPIT 2010 - Luxor, Egypt

## ISPPIT 2010 - Luxor, Egypt

#### **REGISTRATION**

Wednesday December 15<sup>th</sup>, 5:00pm-8:00pm Thursday December 16<sup>th</sup>: 7.30 am – 12.00 noon: Registration Friday December 17<sup>th</sup>: 7:30 am – 12.00 noon: Registration Saturday December 18<sup>th</sup>: 7.30 am – 12.00 noon: Registration

**TECHNICAL PROGRAM:** Synopsis

### Thursday, December 16<sup>th</sup>, 2010

8.30 - 9:00		Welcome Address		
9:00 - 10:00		Plenary talk I: Dr. Olfa Nasraoui		
	Indexin	Indexing and Annotation of Multimodal Image Collections		
10:00 - 10.15	Break			
10.15 - 12.15	TM.A1	TM.A1 TM.A2 TM.A3		
12.00-13.30		Conference Lunch		
13.30-15.15	TA.A1 TA.A2 TA.A3			
15.15-15.30	Break			
15.30-17.00	TA.B1 TA.B2 TA.B3			

### Friday, December 17, 2010

9:00 - 10:00	Plenary talk II: <i>Dr. Sartaj Sahni</i> Sensor Deployment				
10:00 - 10.15		Break			
10.15 - 12.15	FM.A1	FM.A1 FM.A2 FM.A3			
12.00-13.30		Conference Lunch			
13.30-15.15	FA.A1	FA.A1 FA.A2 FA.A3			
15.15-15.30	Break				
15.30-17.00	FA.B1 FA.B2 FA.B3				
	Gala	Dinner (tentatively at 7:0	0 pm)		

### Saturday, December 18, 2010

9:00 - 9:30	Panel Discussion: Green IT – Dr. Tantawy (co-ordinator)		
9:35 - 10:00	ISSPIT 2011 Announcement		
10:00 - 10.15	Break		
10.15 - 12.15	SM.A1	SM.A2	

### TECHNICAL PROGRAM: Schedule

### Thursday, December 16, 2010

### TM.A1 Wireless Network

An Adaptive Modulation Scheme for Image Transmission over Wireless Channels	Rimas Zrae, Mohamed Hassan, Mohamed El-Tarhuni
Performance Evaluation of ZRP in Adhoc Mobile Wireless Networks Using Qualnet Simulator	Mankanala N Sreerangaraju, Jitendranath Mungara
A Framework to Strengthen Password Authentication Using Mobile Devices and Browser Extensions	Peipei Shi, Bo Zhu, Amr Youssef
A General Framework For Remote Laboratory Access: A Standardization Point Of View	Yasser H. Elawady,Ahmed S. Tolba
LOCALIZATION OF WIRELESS SENSOR NETWORK USING BEES OPTIMIZATION ALGORITHM	Adel M Moussa

### **TM.A2** Medical Applications

Development of Full-Featured ECG System for Visual Stress Induced Heart Rate Variability	Wanging Wu, Jungtae Lee
(HRV) Assessment	
Hybrid Transform Coding Scheme For Medical	Aree A. Mohammed, Jamal A. Hussein
Image Application	Alce A. Monannied, Jamai A. Hussein
A Novel 3D Segmentation Approach for	
Segmenting the Prostate from Dynamic Contrast	Ahmad A Firjani, Ahmed Elnakib, Fahmi Khalifa, Ayman El-
Enhanced MRI using Current Appearance and	Baz, Georgy Gimel'farb, Adel S Elmaghraby
Learned Shape Prior	
MRI CASES CONTAINING CEREBRAL TUMORS	Hedi YAZID, Karim KALTI, Fatma ELOUNI, Najoua BEN
RETRIEVAL USING BAYESIAN NETWORKS	AMARA ESSOUKRI, Kalthoum TLILI
Medical Image Storage System for Content-	Selwin O Igwe, Adel S Elmaghraby
Based Retrieval	Selwin O igwe, Adel S Elinagillaby

### TM.A3 Algorithms

Multi-channel ANC using online secondary-path modeling with noise power scheduling	T.H. Jung, J.B. Seo, K.J. Kim, J.H. Kim, S.W. Nam
High Performance Wideband CMOS Current Conveyor for Low voltage Low Power Applications	Hesham F. A. Hamed, El-Sayed A. M. Hasaneen, Ahmed H. M. Abolila
Accelerating the Nussinov RNA Folding Algorithm with CUDA/GPU	Dar-Jen Chang, Christopher Kimmer, Ming Ouyang
Improving Performance of Fading Channel Simulators by use of Uniformly Distributed Random Numbers	Jamshaid S Malik, Ben Slimane, Ahmed Hemani, N D Gohar
Classification Approach of a Continuous Data using Deep Belief Network	Mostafa A. Salama ,Aboul-Ella Hassanien ,Aly Fahmy

### TA.A1 Image Processing: I

Adult Image Content Filtering: A Statistical Method Based on Multi-Color Skin Modeling	Mahmoud Mofaddel, Samy Sadek
LEARNING ELECTRONICS USING IMAGE PROCESSING TECHNIQUES FOR DESCRIBING CIRCUITS TO BLIND STUDENTS	Begona G Zapirain, Amaia M Zorrilla, Ibon R Oleagordia, Alvaro M Muro
A Pixel-domain Post-Processing Technique to Reduce the Blocking Artifacts in Transform- Coded Images	Usama S. Mohammed
Orientation of Multiple Principal Axes Shapes Using Efficient Averaging Method	Emad M El-Sayed, Rehab F Abdel-Kader, Rabab M Ramadan
A Semantic Query Interpreter Framework by using Knowledge Bases for Image Search and Retrieval	Nida Aslam, Irfan Ullah, Jonathan Loo, Rooh Ullah

### TA.A2: Information Security I

A Fragile Invertible Watermarking Technique for the Authentication of Medical Images	Ahmed Al-Gindy
Optical Watermarking Technique Robust to Geometrical Distortion in Image	Yasunori Ishikawa, Kazutake Uehira, Kazuhisa Yanaka
Robust Digital Image Watermarking Using Singular Value Decomposition	Morteza makhloghi, Fardin Akhlaghian Tab, Habibollah Danyali
A Robust Audio Watermarking Technique Based On The Perceptual Evaluation Of Audio Quality Algorithm In The Multiresolution Domain	Salma Masmoudi Aloulou, Maha Charfeddine Hamza, Chokri Ben Amar

### TA.A3: Neural Network

Content-based Retrieval of Audio Data using a Centroid Neural Network	Dong-Chul Park
Sunspot Series Prediction using a Multiscale	Tae-Hyun Kim, Dong-Chul Park, Dong-Min Woo,
Recurrent Neural Network	Woong Huh, Chung-Hwa Yoon, Hyen-Ug Kim
The Pressure Altitude Computation using	Ilke Turkmen,Yasin Korkmaz
Artificial Neural Network for Air Data Computer	
On Optimal Selection of Software Learning	
Packages Using Artificial Neural Networks'	Hassan M.H. Mustafa, Turki F. Al-Somani
Modeling (Educational Simulation Approach)	

### **TA.B1** Systems

Enhancing Iris recognition system performance through template fusion	Aly I Desoky, Hesham A Ali, Nahla B Abdel-Hamid
A Structured-Based Differencing Method for Version Control System for Java Codes	Samir Elmougy, Waleed M. Al-Adrousy
Analyses on Kernel-Specific Generalization Ability for Kernel Regressors	Akira Tanaka, Masaaki Miyakoshi

### TA.B2 Information Security II

On the Security of Image Encryption Schemes Based on Multiple Parameters Transforms	Esam Elsheh, Amr Youssef
The Case for Service Provider Anonymity	Mohammed Hussain, David B. Skillicorn
Digital Security Algorithm for GSM Incorporated Virtual E-Banking Protocol Using Watermarking Technique	Syed Bahauddin Alam, Md. Nazmus Sakib, A B M Rafi Sazzad, Celia Shahnaz2, Shaikh Anowarul Fattah
Secured Cellular Banking Protocols Using Virtual Internet with Digital Watermarking	A B M Rafi Sazzad, Syed Bahauddin Alam Student Member Md. Nazmus Sakib, Celia Shahnaz2,

### TA.B3 Speech Processing I

CORRECTIVE ALGORITHM FOR ESOPHAGEAL VOICE CYCLE DETECTION	Andrés G Isasi, Begona G Zapirain, Amaia M Zorrilla
An FO Control Model for Singing Synthesis based on Proportional-Integral-Derivative Controller	Wen-Hsing Lai, Sen-Fu Liang
A New Technique for Blind Source Separation of	Mamdouh F. Fahmy, Usama S. Mohammed, Nahed A.
PostNonlinear Mixture	Saleh

### Friday, December 17, 2010

### FM.A1 Cloud Computing

An Enhanced E-Learning Ecosystem Based on an Integration between Cloud Computing and Web2.0	Shimaa M. Ouf, Mona M. Nasr, Yehia M. Helmy
Computer Networks Resilience Challenges: Routing Protocols	Yehia H. Khalil, Adel S. Elmaghraby
First-Slot Scheduling with Wavelength Conversion for Distributed File Transfers	Yan Li, Sanjey Ranka, Sartaj Sahni
Task Clustering & Scheduling with Duplication	Ahmed A Ebaid, Reda A Ammar, Sanguthevar
Using Recursive Critical Path Approach (RCPA)	Rajasekaran, Tahany A Fergany
Toward Futuristic Near-Natural Collaborations on Distributed Multimedia Plays Architecture	Leif Arne Rønningen, Mauritz Panggabean, Ozgur Tamer
A Hybrid Algorithm for Restructuring Distributed	Mohamed T. Faheem, Reda A. Ammar, Al Sayed A. H. Sallam,
Object-Oriented Software	Amany M. Sarhan, Hebat-Allah M. Ragab

### FM.A2: MIMO Communication Systems

A List Detection with Partial SIC based on Reciprocal Lattice-Reduction in MIMO Systems	Wei Hou, Tadashi Fujino
MMSE Detector Using Forward and Backward Reciprocal-Lattice Reduction in MIMO Systems	Hidekazu Negishi, Wei Hou, Tadashi Fujino
An improved Lattice-Reduction Aided MMSE	Tomohito Nozoe, Hidekazu Negishi, Tetsuyoshi
Detection with SIC and QRM in MIMO Systems	Shimokawa, Tadashi Fujino
Enhanced Channel Estimation Using Cyclic Prefix	Ahmed A. Quadeer, Muhammad S. Sohail
in MIMO STBC OFDM Sytems	Anneu A. Quudeer, Muhanmad S. Sonah
On the effect of High Power Amplifier	Maha Cherif, Rafik Zayani, Ridha Bouallegue
Nonlinearity on MIMO MC-CDMA Systems	Maria Chern, Kark Zayani, Kiuna Bouanegue
A Low Complexity Lattice Reduction Aided	Caio M Kinoshita, Wei Hou, Yusuke Sasaki, Tadashi
Detection Based on Gram-Schmidt	Fujino

### FM.A3 Signal Processing I

Finite precision analysis of Fast QRD-RLS algorithm	Mohammed Mobien Mohammad, Saleh Al Shebeili
Exact Tracking Analysis of the e-NLMS Algorithm	Muhammad Moinuddin, Tareq Y Al-Naffouri, Muhammad S
for Circular Complex Correlated Gaussian Input	Sohail
Approximate Iterative Least Squares Algorithms for GPS Positioning	Yuheng He, Rainer Martin, Attila Michael Bilgic
Decimation-In-Frequency Split-Radix Algorithm for Computing the New Mersenne Number Transform	MONIR TAHA HAMOOD, SAID BOUSSAKTA

Constraint Natural Gradient Algorithm with Non Adaptive Metric	Ijteba-ul-Hasnain Shah, Tariq S Durrani
Statistical Post-processing Improves Basis Pursuit Denoising Performance	Saikat Chatterjee, Dennis Sundman, Mikael Skoglund

### FA.A1 FPGA

Improved Parameterized Efficient FPGA Implementations of Parallel 1-D Filtering Algorithms Using Xilinx System Generator	Sami Hasan, Alex Yakovlev, Said Boussakta
Design and FPGA Implementation of Reduced- Complexity MIMO-MLD Systems	Yousef A Al-Zahrani, Saleh A Al-Marshed, Abdullah A Al-Dhofyan, Ahmed I Sulyman Saleh A Al-Shebeili, Saeed A Al-Dosari
FPGA BASED DESIGN AND IMPLEMENTATION OF AN ADAPTIVE BINARY INTEGRATOR	Fathy M Kader, Khaled H Moustafa, Ahmed M Foad, Xu Jaidong
Parallel Processing Techniques for the Processing of Synthetic Aperture Radar Data on FPGAs	William H Chapman, Sanjay Ranka, Sartaj Sahni, Mark Schmalz,Uttam K Majumder

#### FA.A2: Detection and Recognition

Robust Methods for Hand gesture Spotting and Recognition Using Hidden Markov Models and Conditional Random Fields	Mahmoud Elmezain, Ayoub Al-Hamadi, Samy Sadek, Bernd Michaelis
Hierarchical Clustering of 3-D Line Segments for	Tae-Hyun Kim, Dong-Chul Park, Dong-Min Woo, Yunsik
Building Detection	Lee
Human Activity Recognition via Temporal Moment	Samy Sadek, Ayoub Al-Hamadi, Mahmoud Elmezain, Bernd
Invariants	Michaelis, Usama Sayed
A Novel Transform based Face Watermarking	
Approach for Security and Data Hiding	
Applications	
	Gamal Fahmy
Manifolds for Training Set Selection Through Outlier	
Detection	A. S. Tolba

### FA.A3 Intelligent Systems

Performance of an Optoelectronic Expert System for Massively Parallel Knowledge Base Applications	Samy S. A. Ghoniemy, Omar H. Karam
Pupil Location and Movement Measurement for Efficient Emotional Sensibility Analysis	PhillKyu Rhee, MiYoung Nam, Liang Wang
A Framework for High Level Semantic Annotation Using Trusted Object Annotated Dataset	Irfan Ullah, Nida Aslam, Jonathan Loo, Rooh Ullah
SCAMRA: SIMULATED CONTEXT-AWARE MEETING ROOM APPLICATION	Samah A. Zaki, Maha A. Hana, Yehia K. Helmy
Resource Allocation in Relay-assisted DS/CDMA Interference Channels: a Stackelberg game Approach	Alessio Zappone, Eduard Jorswieck

### FA.B1: Communication Networks

Automatic Modulation Classification for Underwater	Nouha Alyaoui, Abdennaceur Kachouri, Mounir
Acoustic Communications	Samet
A Novel Approach for Automatic Classification of	Hazza S Alharbi, Shoaib Mobien, Alshebeili Saleh,
Digitally Modulated Signals in HF Communications	Alturki Fahd
A Cyclic Prefix based Adaptive Channel Estimation	Hassan Ali
Algorithm for Multicarrier Systems	Hassall All
Parallel Image Transmission and Compression Using	Mauritz Panggabean Ozgur Tamer, Leif Arne
Windowed Kriging Interpolation	Rønningen

### FA.B2 Video Processing

VC-1 Zero Block Detection Method in Motion	Hesham Deghiedy, Mohamed El-Sharkawy, Gamal
Estimation Video Coding	Fahmy
Video coding approach based on arbitrary shaped- region motion estimation	Usama S. Mohammed
Skin Region Based Method for Reducing Motion Estimation Time	M.Hassan Shirali-Shahreza, Sajad Shirali-Shahreza
Using the Local Information of Image to Identify the Source Camera	Fereshteh Gharibi, Fardin Akhlaghian Tab, Bahram ZahirAzami, Bahram ZahirAzami

### FA.B3: Optimization

Multi-objective Optimization of NoC Standard	Ahmed A. Morgan Haytham Elmiligi, M. Watheq El-
Architectures using Genetic Algorithms	Kharashi, Fayez Gebali
Disparity Map using Suboptimal Cost with Dynamic	Eman F Sawires, Alaa M Hamdy ,Fathy Z Amer,
Programming	Mokhtar E Bakr
Rank Aggregation Algorithm using Particle Swarm	Mohammed T Faheem, Elsayed A Sallam, Tarek E
Optimization for Metasearch Engines	Eltobely, Mostafa M Elhamshary

### Saturday December 18th, 2010

### SM.A1 Filtering

Enhancement of Breathing Signal using Delayless Subband Adaptive Filter with HPF	kali vara prasad Naraharisetti
Recursive Inverse Adaptive Filter with Second	Mohammad Shukri Ahmad, Osman Kukrer, Aykut
Order Estimation of Autocorrelation Matrix	Hocanin
REAL TIME PROCESSING OF A LATTICE WAVE	Khaled H Moustafa, Fathy M Kader, Mohamed A Romeh,
DIGITAL MATCHED FILTER	Xu W Jiadong
Blind Source Separation in Nonminimum-phase	Amin Kheradmand, Hamid Sheikhzadeh, Kamraan
Systems Based on Filter Decomposition	Raahemifar, Ebrahim Ghanavati
VOCAL FOLDS PARALYSIS STUDY USING A PRE-	
PROCESSING STAGE OF GABOR FILTERING AND	Amaia Méndez Zorrilla Begoña García Zapirain
CHAN-VESE SEGMENTATION	

#### SM.A2 Signal Processing II

A Novel SLM PAPR Reduction of OFDM Signals	Toshiharu Kojima, Shohei Iwamoto, Yuki Shida, Tadashi
without Side Information	Fujino
On the Advantages of Subspace Tracking for Temporal Updating	Matthias Lechtenberg, Jürgen Götze
Fuzzy Self-Tuning Inverse Dynamics Control of 3 DOF Planar Robot	Elsayed Sallam
Symbol Error Probability Analysis of the Decode and Forward Relaying over the composite fading multipath/shadowing channels	Ali DZIRI, Didier LE RUYET, Daniel ROVIRAS, Michel TERRE
On the Use of Compressive Sampling for Wide- band Spectrum Sensing	Dennis Sundman, Saikat Chatterjee, Mikael Skoglund

#### SA.A1 Speech Processing II

Speech Segmentation using a Hypothesis Test based	Neda Faraji, Seyed Mohammad Ahadi, Hamid
on Random Matrix Theory	Sheikhzadeh, Alireza Moghaddamjoo
Singer and music discrimination based threshold in Polyphonic Music	Ezzaidi Hassan, Rouat Jean, Bahoura Mohammed
Effect of MFCC Normalization on Vector Quantization Based Speaker Identification	M.Hassan Shirali-Shahreza, Sajad Shirali-Shahreza