iwssip 2009

**16th International Workshop on
Systems, Signals and Image Processing**

June, 18-20, 2009

Chalkida, Greece

IWSSIP 09 Programme

Schedule outline
Thursday, 18 June 2009

8:00-9:00   Registration

HALL A

9:00-9:45   Opening session

9:45-11:15   Plenary Session

11:15-11:30 *Coffee break*

11:30-13:00 Plenary Session

13:00-14:30 *Lunch Break*

14:30-16:00 Tutorial session

HALL A	HALL B	HALL C
16:00-17:15 Special Session: Synthetic Aperture Radar (SAR) Images Analysis	16:00-17:15 Session: Voice detection and speech recognition	16:00-17:15 Session: Telecommunication Systems
17:15-17:30 *Coffee break*		
17:30-18:45 Special Session: Security in wireless sensor networks	17:30-18:45 Session: Signal Processing	17:30-18:45 Session: Video Applications (I)
18:45-20:00 Special Session: RF Positioning Technologies	18:45-20:00 Special Session	18:45-20:00 Session: Video Applications (II)

Friday, 19 June 2009

HALL A

9:00-11:15:   Plenary Session

11:15-11:30 *Coffee break*

11:30-13:00 : Tutorial Session

13:00-14:30 *Lunch Break*

HALL A	HALL B	HALL C
14:30-15:45: Session: Filtering	14:30-15:45: Session: Wireless Networks	14:30-15:45: Session: Speech segmentation and geographical data processing
15:45-17:00: Special Session: Advances in Biomedical Signal and Image Processing	15:45-17:00: Session: Content indexing and personalization	15:45-17:00: Session: Power control and practical perspectives
17:00-17:15 *Coffee break*		
17:15-18:30: Special Session: Agent and Multi-Agent based Surveillance Systems	17:15-18:30: Session: Image processing	17:15-18:30: Session: Human movement tracking and identification techniques
18:30-19:45: Session: Watermarking and image classification	18:30-19:45: Session: Image processing for medical applications	18:30-19:45: Session: Face recognition and image restoration

Saturday, 20 June 2009
Social Event TBA

HALL A

9:00-9:45	*Opening session*
9:45-11:15	*Plenary Session*
Session Chair	B. Zovko-Cihlar
	D. van Ormondt The Semiparametric Approach in Magnetic Resonance Spectroscopy
	G. Giakos, Novel Molecular Pathways from Photomedicine Imaging to Nanodevice Industry
11:15-11:30	*Coffee break*
11:30-13:00	*Plenary Session*
Session Chair	D. A. Karras
	M. Petrou, A new imaging architecture and an alternative interpretation of the structure of the human retina
	E. Gelenbe, Network adaptivity through self-awareness: the CPN experience
13:00-14:30	*Lunch Break*
14:30-16:00	*Tutorial session*
Session Chair	A. Ktena
	H. Woellik, Comparison and simulation of different anti-collision methods for RFID-communication
	P. D. Cristea, Nucleotide Genomic Signals
16:00-17:15	*Special Session: Synthetic Aperture Radar (SAR) Images Analysis*
Session Chair	D. Gleich, D. Bargiotas
	Cramer-Rao Bound for Evaluation Despeckling and Texture Extraction from SAR images, D. E. Molina, D. Gleich, M. Datcu, SLOVENIA, GERMANY
	Soil Moisture Estimation with TerraSAR-X with Dubois empirical model, M. Kseneman, D. Gleich , SLOVENIA
	The Impact of model based despeckling on soil moisture, D. Gleich, P. Planinšič, Ž. Čučej, M. Kseneman, SLOVENIA
	Damage Assessment based on SAR image analysis, A. Popescu, C. Patrascu, I. Gavat, M. Datcu, ROMANIA, GERMANY
	Regularization of complex SAR images using Markov Random Fields, D. Gleich, P. Planinšič, M. Kseneman, M. Soccorsi, M. Datcu, SLOVENIA, GERMANY
17:15-17:30	*Coffee break*
17:30-18:45	*Special Session: Security in wireless sensor networks*
Session Chair	H.C. Leligou, E. Ladis
	Efficient detection of routing attacks in Wireless Sensor Networks, Th. Zahariadis, P. Trakadas, S. Maniatis, P. Karkazis, H. C. Leligou, S. Voliotis, HELLAS
	Low-Power Security Modules optimized for WSNs, P. Christou, K. Kyriakoulakos, E. Sotiriadis, K. Papadopoulos, G.-Gr. Mplemenos, I. Papaefstathiou, HELLAS
	Empirical Study of Clustering Algorithms for Wireless Ad Hoc Networks, C. Tselikis, S. Mitropoulos, C. Douligeris, E. Ladis, K. Georgouleas, C. Vangelatos, HELLAS
	A distributed intrusion detection system for ad-hoc wireless sensor networks, L. Besson, Ph. Leleu, FRANCE
	Securing Wireless Sensor Networks by Using Location Information, M. García, F. Álvarez, J. Casajús, SPAIN

18:45-20:00   *Special Session: RF Positioning Technologies*
Session Chair   A. Ktena, Ž. Čučej
                 A new low-cost HF RFID loop antenna concept for metallic environments, K. D' hoe, A.
                 Van Nieuwenhyuse, G. Ottoy, L. De Strycker, J.-P. Goemaere, BELGIUM
                 A Smart ZIGBEE Based Wireless Sensor Meter System, Ch. Tatsiopoulos, A. Ktena,
                 HELLAS
                 The accuracy of propagation models for distance measurement between WSN nodes,
                 M. Malajner, K. Benkič, P. Planinšič, Ž. Čučej, SLOVENIA
                 On line measurements and visualization of distances in WSN with RSSI parameter, K.
                 Benkič, M. Malajner, P. Planinšič, Ž. Čučej, SLOVENIA
                 A scalable low-cost Automated Storage & Retrieval System, D. Bargiotas, Ch. Manasis,
                 A. Ktena, O. Ladoukakis, HELLAS
                 PoRaC- Positioning systems by Radio Communication: A Students' Search for New
                 Applications, A. Ktena, H.C. Leligou, F. Schrooyen, R. Steurs, HELLAS, BELGIUM

16:00-17:15	*Session: Voice detection and speech recognition*
Session Chair	G. Rozinaj, B. Simak

Low-complexity Voice Activity Detector Using Periodicity and Energy Ratio, K. Sakhnov, E. Verteletskaya, B. Simak, CZECH REPUBLIC

Low-Complexity Voice Detector for Mobile Environments, M. Ries, B. Gardlo, M. Rupp, Ph. De Leon, AUSTRIA

Adding Voicing Features Into Speech Recognition Based on HMM in Slovak, J. Kacur, G. Rozinaj, SLOVAKIA

Pitch detection algorithms and voiced/unvoiced classification for noisy speech, E. Verteletskaya, K. Sakhnov, B. Simak, CZECH REPUBLIC

Influence of Hangover and Hangbefore Criteria on Automatic Speech Recognition, D. Vlaj, M. Kos, M. Grašič, Z. Kačič, SLOVENIA

Comparative Experiments to Evaluate the use of Syllables for the Improvement of Automatic Recognition of Dysarthric Speech, H. Tolba, KSA

17:15-17:30	*Coffee break*
17:30-18:45	*Session: Signal Processing*
Session Chair	M. Rangoussi, Ch. Tsitouras

Cramer-Rao Lower Bound for Parameter Estimation of Multiexponential Signals, A. U. Jibia, M. E. Salami, O. O.Khalifa, F. A. M. Elfaki, MALAYSIA

The Hartley Phase Cepstrum as a tool for improved Phase Estimation, I. Paraskevas, M. Rangoussi , HELLAS

Adaptive change detection, A. Buades, J.L. Lisani, L. Rudin, SPAIN, USA

Non -Linear Analysis And Time Series Prediction Of An Electrical Analogue Of The Mechanical Double Pendulum, M. P. Hanias, D.A.Karras, M. Mobarak, HELLAS, EGYPT

Reflectivity Estimation by Expectation Maximization Algorithm in Ultrasonic Nondestructive Evaluation, M. Hajian, F. Honarvar, M. Ahmadi, IRAN

Square Roots of Boolean Matrices, Ch. Massouros, Ch. Tsitouras, S. Voliotis, HELLAS

18:45-20:00	*Special Session: Systems Security*
Session Chair	S. Katsikas, D.A. Karras

W-HER: A wireless distributed framework for secure dissemination of electronic healthcare records, P. Belsis, D. Vassis, S. Gritzalis, C. Skourlas, HELLAS.

Playing games with internal attackers repeatedly, I. Kantzavelou, S. Katsikas, HELLAS

Performance evaluation of a flooding detection mechanism for VoIP networks, D. Geneiatakis, N. Vrakas, C. Lambrinoudakis, HELLAS.

Using a fuzzy inference system to reduce false positives in intrusion detection, G. Spathoula, S. Katsikas, HELLAS

HALL C

16:00-17:15   *Session: Telecommunication Systems*
Session Chair   P. Podhradský, G. Pau

Modeling and Implementation of the Complex Telecommunication Systems using the High Performance Computing Resources, T. Kapetanović, A. Kapetanović, USA

Traffic characterization in IP Multimedia Subsystem, T. Kovacik, I. Kotuliak, SLOVAKIA

Advance PVR applications in IMS based IPTV environment, R. Kadlic, E. Mikóczy, P. Podhradský, SLOVAKIA

Delay Performance of Session Establishment, M. Ulvan, R. Bestak, CZECH REPUBLIC

Influence of Noise on IPTV over xDSL, J. Krejčí, T. Zeman, CZECH REPUBLIC

A modular logic approach for P2P networks A Deductive Object Oriented Framework For P2P neworks, T. Mitakos, I. K. Almaliotis, HELLAS

IPTV-P2P clients at home, A. Sentinelli, G. Marfia, G. Pau, L. Celetto, USA

17:15-17:30   *Coffee break*

17:30-18:45   *Session: Video Applications (I)*
Session Chair   M. Grgic, K. Papadopoulos

A Real Time Ball Detection Framework For Soccer Video, C. Pei, S. Yang, L. Gao, W. Ma, CHINA

Bed Status Detection for Elder-care Center, J.-R. Ding, TAIWAN

Dynamic frame rate adjustment for real-time video in vehicular networks, M. A. Bonuccelli, G. Giunta, F. Lonetti, F. Martelli, ITALY

Wide-scale Video Conferencing over Radio Network Infrastructure, Z. Jelacic, H. Balasko, M. Grgic, CROATIA

Spatial Masking and Perceived Video Quality in Multimedia Application, S. Rimac-Drlje, D. Žagar, G. Martinović, CROATIA

18:45-20:00   *Session: Video Applications (II)*
Session Chair   J. Turán, R. Stasinski

Logotype Detection Concept in Video Stream Based on Features Extraction and Features Clustering from Contours and Colors, M. Gomboc, I. Kramberger, SLOVENIA

A Complete System for Vehicle License Plate Recognition, C.A.B.Mello, D.C. Costa, BRASIL

Detection system for traffic road sings in surrounding environment, M. Fifik, J. Turán, Ľ. Ovseník, J. Turán Jr., SLOVAKIA

A System for Real-Time Lossless and Near-Lossless Video Compression, G. Ulacha, R. Stasinski, POLAND

Class-based Search Algorithm for Inter Mode Prediction of H.264/AVC , J.-R. Ding, TAIWAN

Comparison of Dirac and H.264/AVC Coding Quality Using Objective Video Quality Measures, E. Dumic, M. Mustra, S. Grgic, CROATIA

HALL A

9:00-11:15	*Plenary Session*
Session Chair	D. Bargiotas
	I. King, The New Paradigm Shift: The Emergence of Social Computing
	L. H. Tsoukalas, From Smart Grids to Energy Internet: The Future of Energy Distribution Systems
	G. Zentai, High resolution x-ray imaging
11:15-11:30	*Coffee break*
11:30-13:00	*Tutorial Session*
Session Chair	Th. Zahariadis
	P. Daras, Research Challenges in 3D Search Engines
	P. Spirakis, Sensor Networks Foundations
13:00-14:30	*Lunch Break*
14:30-15:45	*Session: Filtering*
Session Chair	N. Assimakis, M. Adam
	Optimal Distributed Kalman and Lainiotis Filters Optimal uniform distribution of measurements into local processors, N. Assimakis, M. Adam, M. Koziri, S. Voliotis , HELLAS
	riccati equation solution method for the computation of the extreme solutions of X+A*X-1A=Q AND X-A*X-1A=Q, M. Adam, F. Sanida, N. Assimakis, S. Voliotis, HELLAS
	Steady-State and Transient Evaluation of FPAA Implemented Analog Filters Using a MLS System Analyzer, S. M. Potirakis, J. Deli, M. Rangoussi , HELLAS
	Resource Recommendation using Adaptive Automaton, P. R. M. Cereda, R. A. Gotardo, S. D. Zorzo, BRASIL
	A FAST Algorithms for Adaptive Filtering, M. Arezki, A. Guessoum, P. Meyrueis, ALGERIA, FRANCE
	Towards the mathematic formalization of parametric generalized cyclinders and initial results in modeling 3D image data, A.I. Kechriniotis, K.K. Delibasis, C. Tsonos, N. Assimakis, P. Asvestas, HELLAS
15:45-17:00	*Special Session: Advances in Biomedical Signal and Image Processing*
Session Chair	D.A. Karras, B.G. Mertzios
	Performance of the Orthogonal Moments in Reconstructing Biomedical Images G.A. Papakostas and B.G. Mertzios, D.A. Karras, HELLAS
	Computing Orthogonal Moments in Biomedical Imaging G.A. Papakostas, D.E. Koulouriotis and E.G. Karakasis, HELLAS "
	On MRS signal reconstruction through intelligent and deterministic chaos techniques, D.A Karras and M. Hanias, HELLAS
	Metabolites Quantitation Analysis in MRS Signals through Modified SVD, D.A Karras, V. Stamatopoulos, HELLAS
	New Results in Biomedical Signal Analysis of Brain Signals, V. Stamatopoulos, HELLAS

17:00-17:15	*Coffee break*
17:15-18:30	*Special Session: Agent and Multi-Agent based Surveillance Systems*
Session Chair	E.S. Sardis, A. Doulamis
	On the fly Semantic Annotation and Modelling of Multimedia, N. Doulamis, K. Ntalianis, HELLAS
	Distributed Multimedia Metadata Tracking and Management, T. Belis, A. Doulamis, HELLAS
	Evacuation Planning through Cognitive Crowd Tracking, N. Doulamis, HELLAS
	An Automatic Multi-Agent Web Image and Associated Keywords Retrieval System, N. Papadakis, K. Ntalianis, G. Glentis, G. Stamoulis, HELLAS
	Applying Multi-Agents Technologies in Industrial Plants, E. S. Sardis, HELLAS
	Health monitoring through an attention-based agent, N. Tsapatsoulis, HELLAS
18:30-19:45	*Session: Watermarking and image classification*
Session Chair	F. R. Leta, S. Voliotis
	Watermarking Scheme Based on Discrete Wavelet Transform and Error-Correction Codes, P. Cika, CZECH REPUBLIC
	Macroscopic Rock Texture Image Classification using an Hierarchical Neuro-Fuzzy System, L.B. Gonçalves, F.R. Leta, S. de C.Valente, BRASIL
	PCA Approach on Morphological Classification of Galaxies, L. State, D. Constantin, C. Sararu, ROMANIA
	Optimum-path forest-based rainfall estimation, G.M. Freitas, A.M.H. Ávila, J. P. Papa, A.X. Falcão, BRASIL

14:30-15:45   *Session: Wireless Networks*

Session Chair   W. Helmut, A. Ulvan
Admission Control as a Non-cooperative Multi-Stage Game between Wireless Networks, D. Charilas, O. Markaki, P. Vlacheas, HELLAS
Analysis and Performance Evaluation of IEEE 802.16 Enhanced with Decentrally Controlled Relays, P. Mach, R. Bestak, CZECH REPUBLIC
The Analysis of Scanning Time in IEEE802.16m's Handover Procedure Signaling in IP multimedia Subsystem, A. Ulvan, R. Bestak, CZECH REPUBLIC
Interference Analysis of Cognitive Radio Networks in a Digital Broadcasting Spectrum Environment , T.H.N. Velivasaki, T.V. Zahariadis, P.T. Trakadas, C.N. Capsalis, HELLAS
Femtocells in 3G mobile networks, M. Neruda, J. Vrana, R. Bestak, CZECH REPUBLIC
A simulation tool for RFID anti-collision algorithms based on ALOHA, H. Woellik, AUSTRIA

15:45-17:00   *Session: Content indexing and personalization*

Session Chair   H.C. Leligou, P. Planinšič
Personalization mechanisms for content indexing, search, retrieval and presentation in a multimedia search engine, O. Markaki, D. Charilas, HELLAS
A Multi-Dimensional Similarity Modeling and Relevance Feedback Approach for Content-Based Image Retrieval, E. Z. Barcelos, E. L. Flores, C. A. Z. Barcelos, S. F. Silva, M. A. Batista, BRASIL
Representing Geographic Information in Multidimensional XML, T. Mitakos, I. Almaliotis, HELLAS
 PIDALION: Implementation issues of a Java-based Multimedia Search Engine over the web, D. Charilas, O. Markaki, HELLAS
Mobile TV Targeted Advertisement and Content Personalization, S. Uribe, I. Fernández - Cedrón, F. Álvarez, J.M. Menéndez, J. L. Núñez, SPAIN
Personalization for Digital Television using Recommendation System strategy, A. dos Santos Lucas, S.D. Zorzo, BRASIL

17:00-17:15   *Coffee break*

17:15-18:30   *Session: Image processing*

Session Chair   A. Conci , L. Mandic
Fast and Robust Object Tracking using Image Foresting Transform, R. Minetto, J. P. Papa, T. V. Spina, A. X. Falcao, N.J. Leite, J. Stolfi, BRASIL
On Determining Slope and Derivative of Curve Components in a Binary Image, T. Kumaran, INDIA
The model of degradation of color values in a reproduction process, A. Poljicak, L. Mandic, D. Agic, M. Strgar Kurecic, CROATIA
Damage Assessment based on SAR image analysis. Flood scenario for Romanian Eastern Carpathian Region, A. Popescu, C. Patrascu, I. Gavat, M. Datcu, ROMANIA, GERMANY
Comparative Experiments to Evaluate a CHMM-Based Identification Approach to Naval Targets , H. Tolba, A. Elgerzawy, KSA, EGYPT

Influence of the Wavelet Family in the Compression-Denoising Technique on Synthetic and Natural Images, T. W. Rauber, C. Kubrusly, A. Conci, BRASIL

18:30-19:45	*Session: Image processing for medical applications*
Session Chair	M. Grgic, A. Conci

Hierarchical discovery of patterns of infections in chest radiographs using non-negative matrix factorization, D. K. Iakovidis, S. Tsevas, HELLAS

On Using Lacunarity for Diagnosis of Breast Diseases Considering Thermal Images, O. T. da Silveira Filho, A. Conci, R. Carvalho, R. Mello, R. Lima, BRASIL

Detection of Masses in Mammograms Using Cellular Neural Networks, Hidden Markov Models and Ripley's K Function, W.B. Sampaio, A.C. Silva, A.C. de Paiva, BRASIL

Bilateral Asymmetry Detection in Digital Mammography Using B-spline Interpolation, J. Bozek, E. Dumic, M. Grgic, CROATIA

Use of Coherence Measurements between EEG and EMG on Identification of the Myoclonus Locus, J. R. Bokehi, N. C. M. Vasconcellos, A. Conci, BRASIL

Mitochondrial DNA Analysis using Genomic Signals, P. D. Cristea, R. Tuduce, ROMANIA

HALL C

14:30-15:45   Session: Speech segmentation and geographical data processing

Session Chair   T. Zeman, Th Zahariadis

On-line Speech/Music Segmentation for Broadcast News Domain, M. Kos, M. Grašič, D. Vlaj, Z. Kačič, SLOVENIA

The Influence of Speech/Non-speech Segmentation on On-line and Off-line Speaker Segmentation Accuracy, M. Grašič, M. Kos, D. Vlaj, Z. Kačič, SLOVENIA

A preliminary attempt to create a unified model for obtaining and processing Geodata, I. K. Almaliotis, T. Mitakos, I. Diakakis, HELLAS

A Quantitave Evaluation of Privacy in Location Based Services, F.N. Ribeiro, S.D. Zorzo , BRASIL

Real time feature-based parallel morphing in GPU applied to texture-based animation, M. Zamith, A. Montenegro, E. Passos, E. Clua, A. Conci, R. Leal-Toledo, P. T. Mourão, BRASIL

Camera Array Management Based on UPnP Security, J.-R. Ding, J.-S. Su, W.-W. Lin, Y.-S. Sheng, Y.-T. Lin, TAIWAN

Localization in Wireless Sensor Networks, I. K. Almaliotis, T. Mitakos, I. Diakakis, HELLAS

15:45-17:00   Session: Power control and practical perspectives

Session Chair   S. Grgic, C. Manasis

Fuzzy Logic Power Control in Cognitive Radio, Z. Tabakovic, S. Grgic, M. Grgic, CROATIA

Core power losses estimation of wound core distribution transformers with support vector machines, K. Passadis, G. Loizos, HELLAS

A 90nm Manchester Code Generator with CMOS switches running at 2.4GHz and 5GHz, A. Karagounis, A. Polyzos, B. Kotsos, N. Assimakis, HELLAS

Intelligent Detection of SNM in Liquid Containers, M. Alamaniotis, L. H. Tsoukalas T. Jevremovic, USA

Measurement system for a magnetostrictive torque sensor, A. Ktena, C. Manasis, C. Papadopoulos, D. Bargiotas, O. Ladoukakis, K. Ziatakis, I. Valsamis, J. Petrou, C. Petridis, HELLAS

17:00-17:15   *Coffee break*

17:15-18:30   *Session: Human movement tracking and identification techniques*

Session Chair   P. Peer, K.K. Delibasis

A real time eye-motion monitoring system, T. Economopoulos, K.K. Delibasis, P.Asvestas, G.K. Matsopoulos, N. Assimakis, HELLAS

Multi channel EOG Signal Recognition for an Embedded Eye Movement Tracking Device, M. Kirbiš, I. Kramberger, SLOVENIA

Iris-based human verification system, G. Vrcek, P. Peer, SLOVENIA

Personal Identification Using Combined Biometrics Techniques, N. Hamdy, H. Ibrahim, EGYPT

A Comparative Study to Evaluate a Text-Independent Speaker Identification Engine for Arabic Speakers Using a CHMM-Based Approach, H. Tolba, KSA

Progressive Approaches to Education of Modern Modulation Methods, T. Zeman, J. Hajek, J. Hrad, CZECH REPUBLIC

18:30-19:45   *Session: Face recognition and image restoration*

Session Chair   V. N. Katsikis, Ch. Tsitouras
Infrared Face Recogniton By Optimum-Path Forest , G. Chiachia, A.N. Marana, J. P. Papa, A.X. Falcao, BRASIL
Skin Detection applied to Multi-racial Images, J. A. Tomaschitz, J. Facon, BRASIL
The Color Face Hallucination With The Linear Regression Model And Mpca In Hsv Space, K. Asavaskulkeit, S. Jitapunkul, THAILAND
Reflectance Measurement System for Skin Color Modeling in Chromaticity Color Space, I. Kramberger, SLOVENIA
Image restoration via fast computing of the Moore-Penrose inverse matrix, S. Chountasis, V. N. Katsikis, D. Pappas, HELLAS