

# KES-IIMSS 2008

## PIRAEUS 9-11 July 2008

### Conference Program

#### **Wednesday, July 9th**

17:00-19:00 Registration

#### **Thursday, July 10th**

8:00-09:00 Registration

9:00-9:30 Opening

9:30-10:30 Keynote address

Chair: Prof. Nikolaos Alexandris

Room: A

Narrative Interactive Multimedia Learning Environments: Achievements and Challenges

*Prof. Paul Brna*

10:30-11:00 Coffee break

11:00-13:00 Intelligent Multimedia Systems in Bioinformatics and Medical Informatics (Invited Session)

Co-chairs: Drs. Anastasia Kastania and Sophia Kossida

Room: A

A Biosignal Classification Neural Modeling Methodology for Intelligent Hardware Construction

*Anastasia Kastania, Stelios Zimeras, Sophia Kossida*

Virtual Intelligent Agents to Train Abilities of Diagnosis in Psychology and Psychiatry

*José Gutiérrez-Maldonado, , Ivan Alsina-Jurnet, María Virginia Rangel-Gómez, Angel Aguilar-Alonso I, Adolfo José Jarne-Esparcia, Antonio Andrés-Pueyo and Antoni Talarn-Caparrós,*

The role of Neural Networks in biosignals classification

*Stelios Zimeras , Anastasia Kastania*

Medical informatics in the Web 2.0 era

*Iraklis Varlamis, Ioannis Apostolakis*

11:00-13:00 Reasoning-based Intelligent Information Systems (Invited Session)

Chair: Prof. Kazumi Nakamatsu

Room: B

Two Applications of Paraconsistent Logical Controller

*Jair Minoro Abe, Kazumi Nakamatsu, and Seiki Akama*

Encoding Modalities into Extended Petri Net for Analyzing Discrete Event Business Process

*Takashi Hattori, Hiroshi Kawakami, Osamu Katai, and Takayuki Shiose*

Paraconsistent Before-after Relation Reasoning Based on EVALPSN

*Kazumi Nakamatsu, Jair Minoro Abe, and Seiki Akama*

Image Representation with Reduced Spectrum Pyramid  
*Roumen Kountchev and, Roumiana Kountcheva*

Constructive Logic and the Sorites Paradox  
*Seiki Akama, Kazumi Nakamitsu, and Jair Minoro Abe*

**11:00-13:00 Fast Methods for Intelligent Image Recognition (Invited Session)**

**Co-chairs: Prof. Damjan Zazula, Dr. Mitja Lenic, and Dr. Boris Cigale**

**Room: C**

Image Similarity Search in Large Databases Using a Fast Machine Learning Approach  
*Smiljan Šinjur and Damjan Zazula*

Fast Segmentation of Ovarian Ultrasound Volumes Using Support Vector Machines and Sparse Learning Sets

*Mitja Lenič, Boris Cigale, Božidar Potočnik, Damjan Zazula*

Fast and Intelligent Determination of Image Segmentation Method Parameters  
*Božidar Potočnik and Mitja Lenič*

Fast Image Segmentation Algorithm using Wavelet Transform  
*Tomaž Romih and Peter Planinšič*

**13:00-14:00 Lunch Break**

**14:00-15:00 Keynote address**

**Chair: Prof. Dimitris Despotis**

**Room: A**

Privacy-Enhanced Personalization

*Prof. Alfred Kobsa*

**15:00-15:30 Coffee break**

**15:30-17:00 Multimedia Information Clustering and Retrieval**

**Chair: Prof. George A. Tsihrintzis**

**Room: A**

Artificial Immune System-based Music Genre Classification

*D.N. Sotiropoulos, A.S. Lampropoulos, and G.A. Tsihrintzis*

Semantic Information Retrieval dedicated to Multimedia Systems: a platform based on Conceptual Graphs  
*Xavier Aimé and Francky Trichet*

Interactive Cluster-based Personalized Retrieval on Large Document Collections

*Petros Belsis, Charalampos Konstantopoulos, Basilis Mamalis, Grammati Pantziou, and Christos Skourlas*

**15:30-17:00 Evaluation Approaches and Methods**

**Chair: Dr. Ray Adams**

**Room: B**

Evaluating the Next Generation of Multimedia Software

*Ray Adams*

Evaluation Process and Results of a Middleware System for Accessing Digital Music Libraries in Mobile Services

*Paraskevi S. Lampropoulou, Aristomenis S. Lampropoulos, and George A. Tsihrintzis*

Interactive Systems, Design and Heuristic Evaluation: The Importance of the Diachronic Vision

*Francisco V. Cipolla Ficarra and Miguel Cipolla Ficarra*

**15:30-18:30 Image and Video Analysis**

**Chair: Prof. Andrej Czyzewski**

**Room: C**

A Support Vector Machine Approach for Video Shot Detection

*Vasileios Chasanis, Aristidis Likas, and Nikolaos Galatsanos*

Comparative performance evaluation of artificial neural network-based vs. human facial expression classifiers for facial expression recognition

*Ioanna-Ourania Stathopoulou and George A. Tsihrintzis*

Histographic Steganographic System

*Constantinos Patsakis and Nikolaos Alexandris*

Moving Object Detection and Tracking for the Purpose of Multimodal Surveillance System in Urban Areas

*Andrzej Czyzewski, Piotr Dalka*

Dynamically Extracting and Exploiting Information about Customers for Knowledge-Based Interactive TV-Commerce

*Anastasios Savvopoulos and Maria Virvou*

Caring TV as a Service Design with and for Elderly People

*Katariina Rajj and Paula Lehto*

**17:00-18:30 Decision Support Services**

**Chair: Prof. Dimitris Despotis**

**Room: A**

Decision Support Services Facilitating Uncertainty Management

*Sylvia Encheva*

Efficient Knowledge Transfer by Hearing a Conversation while Doing Something

*Eiko Yamamoto and Hitoshi Isahara*

On Managing Users' Attention in Knowledge-Intensive Organizations

*Dimitris Apostolou, Stelios Karapiperis, and Nenad Stojanovic*

**15:30-17:00 Time-Series Analysis in Financial Services**

**Chair:**

**Room: B**

Extracting Input Features and Fuzzy Rules for Forecasting Exchange Rate Using NEWFM

*Sang-Hong Lee, Hyoung J. Jang, and Joon S. Lim*

Forecasting Short-Term KOSPI Time Series Based on NEWFM

*Sang-Hong Lee, Hyoung J. Jang, and Joon S. Lim*

The Convergence Analysis of an Improved Artificial Immune Algorithm for Clustering

*Jianhua Tong, Hong-Zhou Tan, Leiyong Guo*

**19:00-22:00 Conference Main Event and Dinner**

## **Friday, July 11th**

### **8:30-10:00 Geographical Multimedia Services**

**Chair: Dr. Katerina Kabassi**

**Room: A**

Fuzzy Logic Decisions and Web Services for a Personalized Geographical Information System  
*Constantinos Chalvantzis and Maria Virvou*

Design Rationale of an Adaptive Geographical Information System  
*Katerina Kabassi and Georgios P. Heliades*

Multimedia, User-Centered Design and Tourism: Simplicity, Originality and Universality  
*Francisco V. Cipolla Ficarra and Miguel Cipolla Ficarra*

### **10:00-11:30 Affective Multimedia Services**

**Chair: Prof. Maria Virvou**

**Room: A**

Affective Reasoning based on Bi-modal Interaction and User Stereotypes  
*Efthymios Alepis, Maria Virvou, and Katerina Kabassi*

General-Purpose Emotion Assessment Testbed Based on Biometric Information  
*Jorge Teixeira, Vasco Vinhas, Eugenio Oliveira, and Luis Paulo Reis*

Realtime Dynamic Multimedia Storyline Based on Online Audience Biometric Information  
*Vasco Vinhas, Eugenio Oliveira and Luis Paulo Reis*

### **8:30-11:00 Tutoring Systems**

**Chair: Dr. Mahmoud Huleihil**

**Room: B**

User Stereotypes Concerning Cognitive, Personality and Performance Issues in a Collaborative Learning Environment for UML  
*Kalliopi Tourtoglou and Maria Virvou*

Intelligent Mining and Indexing of Multi-Language e-Learning Material  
*Angela Fogarolli and Marco Ronchetti*

Classic and Multimedia-based Activities to Teach Colors for both Teachers and their Pre-school Kids at the Kindergarten of Arab Schools in South of Israel  
*Mahmoud Huleihil and Huriya Huleihil*

TeamSim: An Educational Micro-World for the Teaching of Team Dynamics  
*Orazio Miglino, Luigi Pagliarini, Maurizio Cardaci, and Onofrio Gigliotta*

The Computerized Career Gate Test K.17  
*Theodore Katsanevas*

### **8:30-11:00 Multimedia Techniques for Ambient Intelligence (Invited Session)**

**Chair: Prof. Ernesto Damiani, Dr. Marco Anisetti, and Dr. Valerio Bellandi**

**Room: C**

Assessing separation of duty policies through the interpretation of sampled video sequences: a Pair Programming case study  
*Marco Anisetti, Valerio Bellandi, Ernesto Damiani, and Gabriele Gianini*

Trellis based real-time depth perception chip using interline constraint  
*Sungchan Park and Hong Jeong*

Simple Perceptually-inspired methods for Blob Extraction  
*Paolo Falcoz*

LOGOS: A Multimodal Dialogue System for Controlling Smart Appliances  
*Theodoros Kostoulas, Iosif Mporas, Todor Ganchev, Nikos Katsaounos, Alexandros Lazaridis, Stavros Ntalampiras, Nikos Fakotakis*

One-channel Separation and Recognition of Mixtures of Environmental Sounds: the Case of Bird-Song Classification in Composite Soundscapes  
*Ilyas Potamitis*

**11:30-12:00 Coffee break**

**12:00-13:00 Keynote address**  
**Chair: Prof. Nikolaos Alexandris**  
**Room: A**  
Morphic Computing  
*Prof. Germano Resconi*

**13:00-14:00 Lunch Break**

**14:00-15:00 Keynote address**  
**Chair: Prof. Dimitris Despotis**  
**Room: A**  
Amplifying Video Information-Seeking Success through Rich, Exploratory Interfaces  
*Dr. Michael G. Christel*

**15:00-15:30 Coffee break**

**15:30-18:00 Audio Analysis**  
**Chair: Prof. Panagiotis Tsakalides**  
**Room: A**  
Musical Instrument Category Discrimination Using Wavelet-based Source Separation  
*P.S. Lampropoulou, A.S. Lampropoulos, G.A. Tsihrintzis*

Music Perception as reflected in Bispectral EEG analysis under a Mirror Neurons-based approach  
*Panagiotis Doulgeris, Stelios Hadjidimitriou, Konstantinos Panoulas, Leontios Hadjileontiadis, and Stavros Panas*

Automatic Recognition of Urban Soundscapes  
*Stavros Ntalampiras, Ilyas Potamitis and Nikos Fakotakis*

Low Bitrate Coding of Spot Audio Signals for Interactive and Immersive Audio Applications  
*Athanasios Mouchtaris, Christos Tzagkarakis, Panagiotis Tsakalides*

**15:30-18:00 Techniques and Applications for Multimedia Security (Invited Session)**

**Chair: Prof. Isao Echizen**  
**Room: B**  
Evaluation of PC-based Real-Time Watermark Embedding System for Standard-Definition Video Stream  
*Takaaki Yamada, Yoshiyasu Takahashi, Hiroshi Yoshiura and Isao Echizen*

User Authentication Scheme using Individual Auditory Pop-out  
*Kotaro Sonoda and Osamu Takizawa*

Combined Scheme of Encryption and Watermarking in H.264/ Scalable Video Coding (SVC)  
*Su-Wan Par and, Sang-Uk Shin*

Evaluation of Integrity Verification System for Video Content Using Digital Watermarking  
*Takaaki Yamada, Yoshiyasu Takahashi, Yasuhiro Fujii, Ryu Ebisawa, Hiroshi Yoshiura, and Isao Echizen*

Improving the Host Authentication Mechanism for POD Copy Protection System  
*Eun-Jun Yoon and Kee-Young Yoo*

**15:30-17:30 Wireless and Web-based Multimedia**

**Chair: Prof. Il-Young Moon and Prof. Maja Matijasevic**

**Room: C**

Resource Authorization in IMS with Known Multimedia Service Adaptation Capabilities  
*Tomislav Grgic, Vedran Huskic, Maja Matijasevic*

Visualizing Ontologies on the Web  
*Ioannis Papadakis and Michalis Stefanidakis*

Performance Analysis of ACL Packets using Turbo Code in Bluetooth Wireless System  
*Il-Young Moon*

Design and Implementation of Remote Monitoring System for Supporting Safe Subways based on USN  
*Seok Cheol Lee and Chang Soo Kim*

**18:30-21:00 Closing Session, Reception and Dinner:** Review of KES-IIMSS 2008 and Presentation of KES-IIMSS 2009 by Prof. Gabriele Gianini