HAIS'10

5th International Conference on
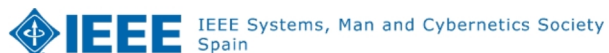## HYBRID ARTIFICIAL INTELLIGENCE SYSTEMS

Computational Intellegence Group (GIC)
University of the Basque Country

Palacio de Miramar
23th-25th June 2010 - San Sebastián, Spain

Conference Programme

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Peking University (China)

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University of Science and Technology of China (China)

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Nanyang Technological University (Singapore)

Dr. Dante I. Tapia
University of Salamanca (Spain)

Dr. Nikos Thomaidis
University of the Aegean (Greece)

Plenary Speakers

Prof. Mihai Datcu
Paris Institute of Technology, Telecom Paris (France)

Mihai Datcu received the M.S. and Ph.D. degrees in Electronics and Telecommunications from the University "Politechnica" of Bucharest UPB, Romania, in 1978 and 1986. In 1999 he received the title "Habilitation à diriger des recherches" from Université Louis Pasteur, Strasbourg, France. He holds a professorship in electronics and telecommunications with UPB since 1981. Since 1993 he is scientist with the German Aerospace Center (DLR), Oberpfaffenhofen.

He is developing algorithms for model based information retrieval from high complexity signals and methods for scene understanding from synthetic aperture radar (SAR) and interferometric SAR data. He is engaged in research related to information theoretical aspects and semantic representations in advanced communication systems. Currently he is Senior Scientist and Image Analysis research group leader with the Remote Sensing Technology Institute (IMF) of DLR, Oberpfaffenhofen, coordinator of the CNES-DLR-ENST Competence Centre on Information Extraction and Image Understanding for Earth Observation, and professor at Paris Institute of Technology/GET Telecom Paris.

His interests are in Bayesian inference, information and complexity theory, stochastic processes, model-based scene understanding, image information mining, for applications in information retrieval and understanding of high resolution SAR and optical observations.

He has held visiting professor appointments from 1991 to 1992 with the Department of Mathematics of the University of Oviedo, Spain, from 2000 to 2002 with the Université Louis Pasteur, and the International Space University, both in Strasbourg, France. In 1994 was guest scientist with the Swiss Center for Scientific Computing (CSCS), Manno, Switzerland and in 2003 he was visiting professor with the University of Siegen, Germany. From 1992 to 2002 he had a longer invited professor assignment with the Swiss Federal Institute of Technology ETH Zürich. He is involved in advanced research programs for information extraction, data mining and knowledge discovery and data understanding with the European Space Agency (ESA), Centre National d'Etudes Spatiales (CNES), NASA, and in a variety of European projects. He is member of the European Image Information Mining Coordination Group (IIMCG).

Prof. Marios Polycarpou
University of Cyprus (Cyprus)

Marios M. Polycarpou is a Professor of Electrical and Computer Engineering and Interim Director of the KIOS Research Center for Intelligent Systems and Networks. He received the B.A. degree in Computer Science and the B.Sc. degree in Electrical Engineering both from Rice University, Houston, TX, USA in 1987, and the M.S. and Ph.D. degrees in Electrical Engineering from the University of Southern California, Los Angeles, CA, in 1989 and 1992 respectively. In 1992, he joined the University of Cincinnati, Ohio, USA, where he reached the rank of Professor of Electrical and Computer Engineering and Computer Science. In 2001, he was the first faculty member to join the newly established Department of Electrical and Computer Engineering at the University of Cyprus.

Dr. Polycarpou has published more than 175 articles in refereed journals, edited books and refereed conference proceedings, and co-authored (with Jay Farrell) the book Adaptive Approximation Based Control, published by Wiley in 2006. He is also the holder of 3 patents. His research has been funded by several agencies in the United States, the European Commission, and the Research Promotion Foundation of Cyprus. He was the recipient of the William H. Middendorf Research Excellence Award at the University of Cincinnati (1997) and was nominated by students for the Professor of the Year award (1996). He served as the Chair of the Technical Committee on Intelligent Control, IEEE Control Systems Society (2003-05) and as Vice President, Conferences, of the IEEE Computational Intelligence Society (2002-03). Dr. Polycarpou is a Fellow of the IEEE and he is currently the Editor-in-Chief of the IEEE Transactions on Neural Networks.

Prof. Gerhard X. Ritter
University of Florida (USA)

Gerhard X. Ritter is Professor Emeritus in the department of Computer and Information Science and Engineering at the University of Florida, USA. Much of his research has been devoted to autonomous target recognition. A direct result of this research was the development of the theory of image algebra, the theory of morphological neural networks, the notion of dendritic computing, and the notion of the generalized matrix product and its applications. His current research efforts cover such diverse areas as mine detection in the acoustic domain as well as in hyperspectral imagery, biomimetics, autonomous guidance of spinning projectiles, and further research in the area of artificial neurons with dendritic and axonal tree structures.

Prof. Ali-Akbar Ghorbani
University of New Brunswick (Canada)

Dr. Ali Ghorbani has held a variety of positions in academia for the past 30 years including heading up project and research groups and as department chair, director of computing services, director of extended learning and as assistant dean. He received his PhD and Master in Computer Science from the University of New Brunswick, and the George Washington University, Washington D.C., USA, respectively. Dr. Ghorbani currently serves as Dean of the Faculty of Computer Science. He holds UNB Research Scholar position.

His current research focus is Web Intelligence, Network & Information Security, Complex Adaptive Systems, and Critical Infrastructure Protection. He authored more than 220 reports and research papers in journals and conference proceedings and has edited 8 volumes. He served as General Chair and Program Chair/co-Chair for 7 International Conferences, and organized over 10 International Workshops. He has also supervised more than 120 research associates, postdoctoral fellows, and undergraduate and graduate students. Dr. Ghorbani is the founding Director of Information Security Centre of Excellence at UNB. He is also the coordinator of the Privacy, Security and Trust (PST) network at UNB. Dr. Ghorbani is the co-Editor-In-Chief of Computational Intelligence, an international journal, and associate editor of the International Journal of Information Technology and Web Engineering and the ISC journal of Information Security. His book, Intrusion detection and Prevention Systems: Concepts and Techniques, was published by Springer in October 2009.

Prof. James Llinas
Universidad Carlos III de Madrid (Spain)

Dr. Llinas brings over 35 years of experience in multisource information processing and data fusion technology to his research, teaching, and business development activities. He is an internationally-recognized expert in sensor, data, and information fusion, co-authored the first integrated book on Multisensor Data Fusion, and has lectured internationally for over 30 years on this topic. In addition to the original book, Dr. Llinas is also the co-editor of the "Handbook of Multisensor Data Fusion" published in 2001. Dr. Llinas is a Technical Advisor to the Defense Department's Joint Directors of Laboratories Data Fusion Group, the only US DoD technology oversight group for Data Fusion, a position he has held for 20+ years. Dr. Llinas is a recipient of the Joseph Mignona Award (1999), given to one person per year by the Data Fusion Group as signifying lifelong contributions to the field of Data Fusion. His experience in applying this technology to different problem areas ranges from defense applications to non-defense applications to include intelligent transportation systems, medical diagnostics, and condition-based maintenance, among others.

Prof. Éloi Bossé
Defence Research and Development Canada (DRDC Valcartier) (Canada)

Éloi Bossé received the B.A.Sc., M.A.Sc., and Ph.D. degrees in electrical engineering from Laval University, Quebec City, QC, Canada, in 1979, 1981, and 1990, respectively. In 1981, he joined the Communications Research Centre, Ottawa, ON, Canada, where he worked on radar signal processing, high-resolution spectral analysis and radar tracking in multipath. In 1988, he was transferred to the Defence Research Establishment Ottawa (DREO) and in 1992, to the Defence Research and Development Canada (DRDC Valcartier) where he worked on data and information fusion, uncertainty modelling and cognitive systems to support situation awareness and decision making. He is an Adjunct Professor at Laval University, and McMaster University, Hamilton, ON, Canada. He now heads the Decision Support Systems Section. He has published over 80 papers in journals and conference proceedings.

Instructions for authors

The number of papers scheduled in the Oral Sessions allows dedicating a maximum of 15 minutes to the oral presentation of your work. You are kindly required to attend the indications of the session chair concerning time limitations. Following this rule, time for 2 or 3 questions will be allowed at the end of each presentation.

We have assigned a "Room manager" for each room. These people will be the responsible for the presentation and multimedia facilities. Authors must contact the room manager before starting your own session in order to install your slides in the room computer.

Standard presentation facilities are computer and data projector (Acrobat and PowerPoint). Upon request, overhead projector, slide projector and microphone may be provided. Don't hesitate to contact the Organization for special requirements.

Please note: Speakers may not use their own laptop PCs. The very tight schedule for oral presentations will not allow equipment to be switched around between talks.

Social Programme Information

Welcome Reception & Closing Cocktail

Days: Tuesday 22 & Friday 25
Time: 20:00
Location: Palacio de Miramar

Sidrería Dinner

Day: Wednesday 23
Time: 21:30 h

Official dinner on Wednesday will take place in a typical Basque "sagardotegi" ("sidrería" or cider house). The menu will be traditional, consisting in three courses (cod omelette, grilled cod with green peppers and T-bone steak) and dessert (cheese with quince jelly and walnuts). Hard cider will be the main beverage, but other drinks may be available. No alternative menu will be available.

Location:

Albiztur sagardotegia

Matia, 52 Bajo
20008 Donostia - San Sebastián
Tel. 943 21 18 01

The Albiztur cider house is located near the conference venue and can be reached easily on foot (a 500m stroll).
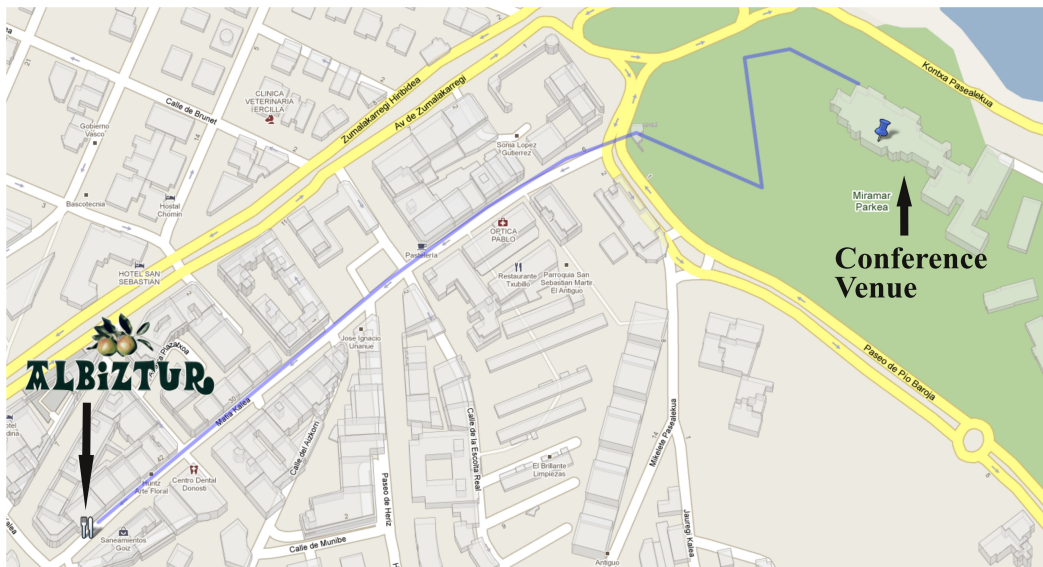
Gala Dinner

Day: Thursday 24
Time: 21:30 h

The gala dinner will take place in the restaurant "Ni neu", located in the Kursaal congress centre in downtown San Sebastián, near La Zurriola beach. The menu will be composed of a selection of dishes based on season products. Celiac or vegetarian menu would be available if requested with enough time at the registration desk.

Location:

Restaurante ni neu

Avda de la Zurriola, 1
20002 Donostia - San Sebastián
Guipúzcoa
Tel. 943 00 31 62

The easiest way to reach the restaurant from the venue is by bus. The bus stop of the lines 5 and 25 is close to the Miramar palace and it takes around 10 minutes to reach the Boulevard. From there, there is a short walk to the Kursaal conference centre and the restaurant. One bus ticket costs 1,35€ and the bus frequency is between 10 (line 5) and 20 minutes (line 25).

However, with good weather it is highly recommended to reach the restaurant on foot. It is a 2,5 km. stroll in which you would be able to enjoy some of the most beautiful views of the city as you walk across some of its representative places: from the Miramar palace to the La Concha walk, up to the Alderdi Eder gardens, the Boulevard and finally crossing the Zurriola bridge to reach the Kursaal conference centre.
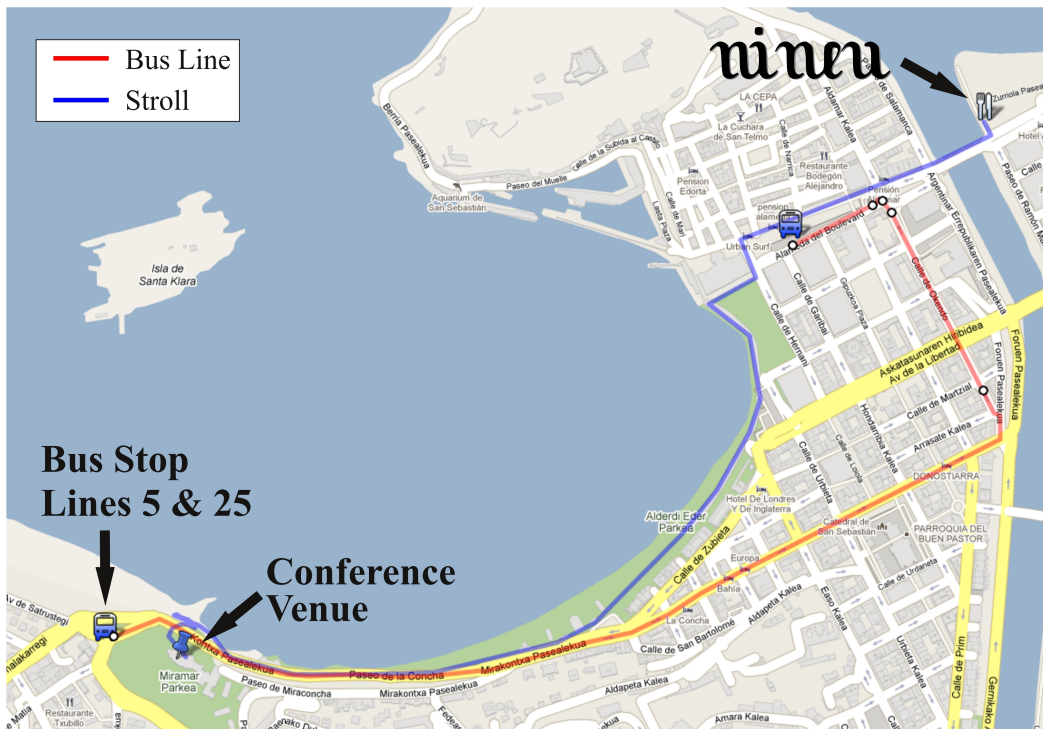
Scientific Programme Workshop Plan

	Tuesday, 22		Wednesday, 23		Thursday, 24		Friday, 25	
		08:30 09:00	Official Opening					
		09:00 11:00	GT 1	GT 2	GT 3	SS 12-1	GT 5	GT 4
		11:00 11:15	Coffe Break					
		11:15 12:15	Keynote Lecture: Prof. Mihai Datcu		Keynote Lecture: Prof. Gerhard X. Ritter		Keynote Lecture: Prof. James Llinas	
		12:15 13:15	Keynote Lecture: Prof. Marios Polycarpou		Keynote Lecture: Prof. Ali-Akbar Ghorbani		Keynote Lecture: Prof. Éloi Bossé	
		13:15 14:30	Lunch					
		14:30 16:30	SS 05	SS 07 & 09	SS 11	SS 03-1	SS 08	SS 06	SS 14
		16:30 17:00	Coffee Break					
		17:00 19:30	SS 01	GT 7	GT 6	SS 03-2	SS 12-2	SS 10	SS 04
18:00 20:00	Registration							
20:00 22:00	Welcome Reception						Closing Cocktail	
		21:30	Dinner		Gala Dinner			

HAIS 2010 SESSION SCHEDULING

Tuesday, June 22

18:00 - 20:00
Registration

20:00 – 22:00
Welcome Reception at Palacio Miramar

Wednesday, June 23

08:30 – 09:00
Official Opening

09:00 – 11:00
Session GT 1: General Track
Session GT 2: General Track

ROOM A
SESSION GT 1: General Track
Chair: Blanca R. Cases Gutierrez

ID#	Title	Authors
744	A Regular Tetrahedron Formation Strategy for Swarm Robots in Three-Dimensional Environment. Page LNCS: 24	M. Fikret Ercan, Xiang Li, Ximing Liang
857	Markovian Ants in a Queuing System. Page LNCS: 33	Ilija Tanackov, Dragan Simić, Siniša Sremac, Jovan Tepić,Sunčica Kocić-Tanackov
851	A parametric method applied to phase recovery from a fringe pattern based on a Particle Swarm Optimization. Page LNCS: 44	J.F. Jimenez, F.J. Cuevas, J.H. Sossa, L.E. Gomez,
891	Automatic PSO-Based Multi-modal Deformable Structures Markerless Tracking In Laparoscopic Cholecystectomy. Page LNCS: 49	Haroun Djaghloul, Mohammed Batouche, and Jean-Pierre Jessel
924	A Framework For Optimization Of Genetic Programming Evolved Classifier Expressions using Particle Swarm Optimization. Page LNCS: 57	Hajira Jabeen , Abdul Rauf Baig
896	Developing an Intelligent Parking Management Application based on Multi-Agent Systems and Semantic Web Technologies. Page LNCS: 65	Andrés Muñoz and Juan A. Botía

ROOM B
SESSION GT 2: General Track
Chair: Ivan Villaverde de la Nava

ID#	Title	Authors
921	Linked Multicomponent Robotic Systems: Basic Assessment of Linking Element Dynamical Effect. Page LNCS: 74	Borja Fernandez-Gauna, Jose M. Lopez-Guede, Ekaitz Zulueta
829	Social simulation for AmI systems engineering. Page LNCS: 81	Teresa Garcia-Valverde, Emilio Serrano and Juan A. Botia
876	Automatic Behavior Pattern Classification for Social Robots. Page LNCS: 89	Abraham Prieto, Francisco Bellas, Pilar Caamaño, Richard J. Duro
818	Healthcare Information Fusion using Context-Aware Agents. Page LNCS: 97	Dante I. Tapia, Juan A. Fraile, Ana de Luis and Javier Bajo
840	Recognition of Turkish vowels by probabilistic neural networks using Yule-Walker AR method. Page LNCS: 113	Erdem Yavuz, Vedat Topuz
732	A Dual Network Adaptative Learning Algorithm for Supervised Neural Network with Contour Preserving Classification for Soft Real Time Applications. Page LNCS: 129	Piyabute Fuangkhon, Thitipong Tanprasert

11:00 – 11:15
Coffee Break

11:15 – 12:15
Keynote Lecture

ROOM A
Prof. Mihai Datcu
"Data Mining on Remote Sensing data"

12:15 – 13:15
Keynote Lecture

ROOM A
Prof. Marios Polycarpou
"Hybrid Intelligent Systems for Fault Diagnosis"

13:15 – 14:30
Lunch at Palacio Miramar

23

14:30 – 16:30
Session SS 05: Knowledge Extraction based on Evolutionary Learning
Session SS 07 & 09: - Hybrid Intelligent Systems on Logistics
**   - HAIS for Computer Security (HAISfCS)**
Session SS 11: Hybrid ANNs: Models, Algorithms and Data

ROOM A
SESSION SS 05: Knowledge Extraction based on Evolutionary Learning
Organizers: - Eva L. Gibaja (Session Chair)
**   -** Amelia Zafra
**   -** Sebastián Ventura

ID#	Title	Authors
937	SIFT-SS: An Advanced Steady-State Multi-Objective Genetic Fuzzy System. Page LNCS: 597	Michel González, Jorge Casillas, Carlos Morell
942	Evolving multi-label classification rules with gene expression programming: A preliminary study. Page LNCS: 605	José Luis Ávila-Jiménez, Eva Gibaja, Sebastián Ventura
752	Solving Classification problems using Genetic Programming Algorithms on GPUs. Page LNCS: 613	Alberto Cano, Amelia Zafra, Sebastián Ventura
792	Analysis of the Effectiveness of G3PARM Algorithm. Page LNCS: 623	J. M. Luna, J. R. Romero, S. Ventura
839	Reducing Dimensionality in Multiple Instance Learning with a Filter Method. Page LNCS: 631	Amelia Zafra, Mykola Pechenizkiy, Sebastián Ventura
923	Graphical exploratory analysis of educational knowledge surveys with missing and conflictive answers using evolutionary techniques. Page LNCS: 641	Luciano Sánchez, Inés Couso, José Otero

ROOM B
Session SS 07 & 09: - Hybrid Intelligent Systems on Logistics
**   - HAIS for Computer Security (HAISfCS)**
Organizers: SS 07: - Camelia Chira (Session Chair)   **SS 09:** - Emilio Corchado
**   -** Alberto Ochoa   - Álvaro Herrero
**   -** Arturo Hernández
**   -** Katya Rodríguez

ID#	Title	Authors
820	A Genetic Algorithm for Solving the Generalized Vehicle Routing Problem. Page LNCS: 715	P. C. Pop, O. Matei, C. Pop Sitar, C. Chira
945	Scalability of a methodology for generating technical trading rules with GAPs based on Risk-Return adjustment and incremental training. Page LNCS: 739	de la Cal, E.A., Fernandez, E.M., Quiroga, R., Villar J.R., and Sedano, J.
889	Hybrid approach for the Public Transportation Time Dependent Orienteering Problem with Time Windows. Page LNCS: 747	Ander Garcia, Olatz Arbelaitz, Pieter Vansteenwegen, Wouter Souffriau andMaria Teresa Linaza
743	Adaptive Hybrid Immune Detector Maturation Algorithm. Page LNCS: 795	Jungan Chen, Wenxin Chen, Feng Liang
918	Interactive Visualization Applets for Modular Exponentiation using Addition Chains. Page LNCS: 803	Hatem M. Bahig and Yasser Kotb
963	CBRid4SQL: A CBR Intrusion Detector for SQL Injection Attacks. Page LNCS: 1107	Cristian Pinzón, Álvaro Herrero, Juan F. De Paz, Emilio Corchado, Javier Bajo

ROOM C
Session SS 11: Hybrid ANNs: Models, Algorithms and Data
Organizers: - César Hervás (Session Chair)
- Antonio Gutiérrez
- Juan Carlos Fernández

ID#	Title	Authors
900	Label dependent evolutionary feature weighting for remote sensing data. Page LNCS: 867	Daniel Mateos-García, Jorge García-Gutiérrez and José C. Riquelme-Santos
756	Evolutionary q-Gaussian Radial Basis Functions for Binary-Classification. Page LNCS: 875	F. Fernández-Navarro, C. Hervás-Martínez, P.A. Gutiérrez, M., Cruz-Ramírez, and M. Carbonero-Ruz
770	Evolutionary Learning using a Sensitivity-Accuracy Approach for Classification. Page LNCS: 883	Javier Sánchez-Monedero, C. Hervás-Martínez, F.J. Martínez-Estudillo, Mariano Carbonero Ruz, M. C. Ramírez Moreno, and M. Cruz-Ramírez
776	An Hybrid System for Continuous Learning. Page LNCS: 891	Aldo Franco Dragoni, Germano Vallesi, Paola Baldassarri, Mauro Mazzieri
793	Support Vector Regression Algorithms in the Forecasting of Daily Maximums of Tropospheric Ozone Concentration in Madrid. Page LNCS: 899	E. G. Ortiz-García, S. Salcedo-Sanz, A. M. Pérez-Bellido, J. Gascón-Moreno, and A. Portilla-Figueras
899	Neuronal Implementation of Predictive Controllers. Page LNCS: 907	José Manuel López-Guede, Ekaitz Zulueta, Manuel Graña, Alicia D'Anjou

16:30 – 17:00
Coffee Break

17.00 – 19:30
Session SS 01: Real World HAIS Applications and Data Uncertainty
Session GT 7: General Track
Session SS 04: Methods of Classifiers Fusion

ROOM A
SESSION SS 01: Real World HAIS Applications and Data Uncertainty
Organizers: - Enrique de la Cal (Session Chair)
- José Ramón Villar

ID#	Title	Authors
763	Efficient Plant Supervision Strategy using NN Based Techniques. Page LNCS: 385	Ramon Ferreiro Garcia, Jose Luis Calvo Rolle, Francisco Javier Perez Castelo
799	FDI and accommodation using NN Based Techniques. Page LNCS: 395	Ramon Ferreiro Garcia, Alberto De Miguel Catoira, Beatriz Ferreiro Sanz
825	A hybrid ACO approach to the Matrix Bandwidth Minimization Problem. Page LNCS: 405	Camelia-M. Pintea, Gloria-Cerasela Crişan, Camelia Chira
830	Machine-Learning Based Co-Adaptive Calibration: a Perspective to fight BCI Illiteracy. Page LNCS: 413	Carmen Vidaurre , Claudia Sannelli , Klaus-Robert Muller, Benjamin Blankertz
819	Analysing the Low Quality of the Data in Lighting Control Systems. Page LNCS: 421	Jose R. Villar, Enrique de la Cal, Javier Sedano and Marco García-Tamargo
865	Type-1 Non-Singleton Type-2 Takagi-Sugeno-Kang Fuzzy Logic Systems Using the Hybrid Mechanism Composed by a Kalman Type Filter and Back Propagation Methods. Page LNCS: 429	Gerardo M. Mendez, Angeles Hernández, Alberto Cavazos, Marco-Tulio Mata-Jiménez
914	An Hybrid Architecture Integrating Forward Rules with Fuzzy Ontological Reasoning. Page LNCS: 438	Stefano Bragaglia, Federico Chesani, Anna Ciampolini, Paola Mello, Marco Montali, and Davide Sottara

ROOM B
SESSION GT 7: General Track
Chair: Ramón Moreno

ID#	Title	Authors
781	Stamping line optimization using Genetic Algorithms and Virtual 3D line simulation. Page LNCS: 319	Javier A. García-Sedano, Jon Alzola Bernardo, Asier González González, Oscar Berasategui Ruiz de Gauna, Rafael Yuguero González de Mendivil
812	Evolutionary Industrial Physical Model Generation. Page LNCS: 327	Alberto Carrascal, Amaia Alberdi
882	Evolving Neural Networks with Maximum AUC for Imbalanced Data Classification. Page LNCS: 335	Xiaofen Lu , Ke Tang, Xin Yao
915	A Neuro-Genetic Control Scheme application for industrial R^3 workspaces. Page LNCS: 344	E. Irigoyen, M. Larrea, J. Valera, V. Gómez, F. Artaza
916	Memetic Feature Selection: Benchmarking Hybridization Schemata. Page LNCS: 351	M. A. Esseghir, Gilles Goncalves and Yahya Slimani
938	GENNET-Toolbox: An Evolving Genetic Algorithm for Neural Network Training. Page LNCS: 369	Vicente Gómez-Garay, Eloy Irigoyen, Fernando Artaza
941	An Evolutionary Feature-Based Visual Attention Model Applied to Face Recognition. Page LNCS: 377	Roberto A. Vázquez, Humberto Sossa and Beatriz A. Garro
905	Reducing Artifacts in TMS-Evoked EEG. Page LNCS: 302	Juan José Fuertes, Carlos M. Travieso, A. Álvarez, M. A. Ferrer, J. B. Alonso

ROOM C
SESSION SS 04: Methods of Classifiers Fusion
Organizers: - Emilio Corchado
                   - Michal Wozniak (Session Chair)
                   - Bruno Baruque

ID#	Title	Authors
881	Randomness and Fuzziness in Bayes Multistage Classifier. Page LNCS: 532	Robert Burduk
888	Multiple classifier system with radial basis weight function. Page LNCS: 540	Konrad Jackowski
911	Mixture of Random Prototype-based local Experts. Page LNCS: 548	Giuliano Armano and Nima Hatami
791	Graph-based Model-Selection Framework for Large Ensembles. Page LNCS: 557	Krisztian Buza, Alexandros Nanopoulos and Lars Schmidt-Thieme
854	Rough Set-Based Analysis of Characteristic Features for ANN Classifier. Page LNCS: 565	Urszula Stańczyk
917	Boosting Algorithm with Sequence-loss Cost Function for Structured Prediction. Page LNCS: 573	Tomasz Kajdanowicz, Przemyslaw Kazienko, Jan Kraszewski
932	Application of Mixture of Experts to Construct Real Estate Appraisal Models. Page LNCS: 581	Magdalena Graczyk, Tadeusz Lasota, Zbigniew Telec, Bogdan Trawiński
935	Designing fusers on the basis of discriminants - evolutionary and neural methods of training. Page LNCS: 589	Michal Wozniak, Marcin Zmyslony
964	A bio-inspired fusion method for data visualization. Page LNCS: 1097	Bruno Baruque, Emilio Corchado

21:30
Official dinner at "Sidrería" Albiztur

09:00 – 11:00
Session GT 3: General Track
Session SS 12-1: Hybrid Artificial Intelligence Systems Based on Lattice Theory - I

ROOM A
SESSION GT 3: General Track
Chair: Maite García-Sebastián

ID#	Title	Authors
745	The Abnormal vs. Normal ECG Classification Based on Key Features and Statistical Learning. Page LNCS: 137	Jun Dong , Jia-fei Tong , and Xia Liu
767	Classification of wood fibre cross-sectional shapes. Page LNCS: 146	Asuka Yamakawa and Gary Chinga-Carrasco
832	A Hybrid Cluster-Lift Method for the Analysis of Research Activities. Page LNCS: 154	Boris Mirkin, Susana Nascimento , Trevor Fenner, and Luís Moniz Pereira
843	Protein Fold Recognition with Combined SVM-RDA Classifier. Page LNCS: 164	Wieslaw Chmielnicki, Katarzyna Stapor
850	Multivariate discretization for associative classification in a sparse data application domain. Page LNCS: 105	María N. Moreno García, Joel Pinho Lucas, Vivian F. López Batista and M. José Polo Martín
859	A Dynamic Bayesian Network based Structural Learning towards Automated Handwritten Digit Recognition. Page LNCS: 121	Olivier Pauplin and Jianmin Jiang

ROOM B
SESSION SS 12-1: Hybrid Artificial Intelligence Systems Based on Lattice Theory
Organizers: - Vassilis Kaburlasos (Session Chair)
              - Juan Humberto Sossa
              - Cliff Joslyn

ID#	Title	Authors
925	Order Metrics for Semantic Knowledge Systems. Page LNCS: 995	Cliff Joslyn and Emilie Hogan
771	Alpha-Satisfiability and Alpha-Lock Resolution for a Lattice-Valued Logic LP(X). Page LNCS: 915	Xingxing He, Yang Xu, Yingfang Li, Jun Liu, Luis Martinez, and Da Ruan
814	An Introduction to the Kosko Subsethood FAM. Page LNCS: 939	Peter Sussner and Estevão Esmi
864	Lattice Associative Memories for Segmenting Color Images in Different Color Spaces. Page LNCS: 955	Gonzalo Urcid, Juan Carlos Valdiviezo-N. and Gerhard X. Ritter
801	Lattice Independent Component Analysis for mobile robot localization. Page LNCS: 931	Ivan Villaverde, Borja Fernandez-Gauna and Ekaitz Zulueta
943	A Comparison of VBM results by SPM, ICA and LICA. Page LNCS: 1024	Darya Chyzhyk, Maite Termenón, Alexandre Savio
796	Granular Fuzzy Inference System (FIS) Design by Lattice Computing. Page LNCS: 1005	Vassilis G. Kaburlasos

11:00 – 11:15
Coffee Break

11:15 – 12:15
Keynote Lecture

ROOM A
Prof. Gerhard X. Ritter
"Advances in Lattice and Dendritic Computing"

12:15 – 13:15
Keynote Lecture

ROOM A
Prof. Ali-Akbar Ghorbani
"Y-means: an autonomous clustering algorithm"

13:15 – 14:30
Lunch at Palacio Miramar

14:30 – 16:30
Session SS 03-1: Signal Processing and Biomedical Applications - I
Session SS 08: Hybrid Reasoning and Coordination Methods on Multi-Agent Systems
Session SS 06: Systems, Man, & Cybernetics by HAIS Workshop

ROOM A
SESSION SS 03-1: Signal Processing and Biomedical Applications - I
Organizers: - Juan Manuel Górriz
                  - Javier Ramírez Pérez de Inestrosa
Chair: Manuel Graña

ID#	Title	Authors
753	Selecting regions of interest in SPECT images using Wilcoxon Test for the diagnosis of Alzheimer's disease. Page LNCS: 446	D. Salas-Gonzalez, J. M. Górriz, J. Ramírez, F. Segovia, R. Chaves, M. López, I. A. Illán, and P. Padilla
774	Effective Diagnosis of Alzheimer's Disease by means of Association Rules. Page LNCS: 452	R. Chaves, J. Ramírez, J.M. Górriz, M. López, D. Salas-Gonzalez, I. Illán, F. Segovia, and P. Padilla
780	Exploratory Matrix Factorization for PET Image Analysis. Page LNCS: 460	A. Kodewitz, I. R. Keck, A. M. Tomé, P. Padia, J. M. Górriz, C. G. Puntonet, and E. W. Lang
782	NMF-Based Analysis of SPECT Brain Images for the Diagnosis of Alzheimer's Disease. Page LNCS: 468	Pablo Padilla, Juan-Manuel Górriz, Javier Ramírez, Elmar Lang, Rosa Chaves, Fermin Segovia, Ignacio Álvarez, Diego Salas-González, and Miriam López
784	Partial Least Squares for feature extraction of SPECT images. Page LNCS: 476	F. Segovia, J. Ramírez, J. M. Górriz, R. Chaves, D. Salas-Gonzalez, M. López, I. Álvarez, P. Padilla, and C. G. Puntonet
800	Sensor Fusion Adaptive Filtering for Position Monitoring in Intense Activities. Page LNCS: 484	Alberto Olivares, J.M. Górriz, J. Ramírez, Gonzalo Olivares

ROOM B
Session SS 08: Hybrid Reasoning and Coordination Methods on Multi-Agent Systems
Organizers: - Vicente Julián (Session Chair)
                    - Stella Heras
                    - Martí Navarro

ID#	Title	Authors
746	A functional taxonomy for artifacts. Page LNCS: 755	Sergio Esparcia and Estefanía Argente
762	A Case-Based Reasoning approach for Norm adaptation. Page LNCS: 763	Jordi Campos, Maite López-Sánchez, and Marc Esteva
903	An Abstract Argumentation Framework for Supporting Agreements in Agent Societies. Page LNCS: 771	Stella Heras, Vicente Botti and Vicente Julian
910	Reaching a common agreement discourse universe on Multi-Agent Planning. Page LNCS: 779	Alejandro Torreño, Eva Onaindia, Oscar Sapena
811	Integrating information extraction agents into a tourism recommender system. Page LNCS: 787	Sergio Esparcia, Victor Sánchez-Anguix, Estefanía Argente, Ana García-Fornes and Vicente Julián

ROOM C
Session SS 06: Systems, Man, & Cybernetics by HAIS Workshop
Organizers: - Emilio Corchado   - Juan Pavón   - Álvaro Herrero
                 - Manuel Graña   - José Manuel Molina   - Bruno Baruque
                 - Richard Duro (Session Chair) - Francisco Herrera   - Javier Sedano
                 - Juan M. Corchado   - César Hervás   - Sara Rodríguez
                 - Vicent Botti   - Sebastian Ventura   - Lourdes Sáiz
                 - Ramón Rizo

ID#	Title	Authors
856	Data Mining for Grammatical Inference with Bioinformatics Criteria. Page LNCS: 649	Vivian F. López, Ramiro Aguilar, Luis Alonso, María N. Moreno, Juan M. Corchado
874	Hybrid Multiagent System for Automatic Object Learning Classification. Page LNCS: 657	Ana Gil, Fernando de la Prieta, Vivian F. López
748	On the Use of a Hybrid Approach to Contrast Endmember Induction Algorithms. Page LNCS: 665	Miguel A. Veganzones, Carmen Hernández
831	Self-emergence of Lexicon Consensus in a Population of Autonomous Agents by Means of Evolutionary Strategies. Page LNCS: 673	Darío Maravall, Javier de Lope, Raúl Domínguez
783	Enhanced Self Organized Dynamic Tree Neural Network. Page LNCS: 681	Juan F. de Paz, Sara Rodríguez, Ana Gil, Juan M. Corchado, Pastora Vega
821	Agents and Computer Vision for Processing Stereoscopic Images. Page LNCS: 689	Sara Rodríguez, Fernando de la Prieta, Dante I. Tapia, Juan M. Corchado
946	Incorporating Temporal Constraints in the Planning Task of a Hybrid Intelligent IDS. Page LNCS: 697	Álvaro Herrero, Martí Navarro, Vicente Julián, Emilio Corchado
950	HERA: A New Platform for Embedding Agents in Heterogeneous Wireless Sensor Networks. Page LNCS: 707	Ricardo S. Alonso, Juan F. de Paz, Óscar García, Óscar Gil, Angélica González

16:30 – 17:00
Coffee Break

17.00 – 19:30
Session SS 03-2: Signal Processing and Biomedical Applications – II
Session SS 12-2: Hybrid Artificial Intelligence Systems Based on Lattice Theory - II
Session SS 10: Hybrid and Intelligent Techniques on Multimedia

ROOM A
SESSION SS 03-2: Signal Processing and Biomedical Applications - II
Organizers: - José Manuel Górriz (Session Chair)
                - Javier Ramírez Pérez de Inestrosa

ID#	Title	Authors
853	Prediction of Bladder Cancer Recurrences using Artificial Neural Networks. Page LNCS: 492	Ekaitz Zulueta Guerrero, Naiara Telleria Garay, Jose Manuel Lopez-Guede, Borja Ayerdi Vilches, Eider Egilegor Iragorri, David Lecumberri Castaños, Ana Belén de la Hoz Rastrollo, Carlos Pertusa Peña
886	Hybrid Decision Support System for Endovascular Aortic Aneurysm Repair Follow-up. Page LNCS: 500	Jon Haitz Legarreta, Fernando Boto, Iván Macía, Josu Maiora, Guillermo García, Céline Paloc, Manuel Graña and Mariano de Blas
848	On the design of a CADS for Shoulder Pain Pathology. Page LNCS: 508	K. López de Ipiña, M.C. Hernández, E. Martínez, C. Vaquero
908	Exploring symmetry to assist Alzheimer Disease Diagnosis. Page LNCS: 516	I. A. Illán, J. M. Górriz, J. Ramírez, D. Salas-Gonzalez, M. López, P. Padilla, R. Chaves, F.Segovia, and C.G. Puntonet
930	Thrombus Volume Change Visualization after Endovascular Abdominal Aortic Aneurysm Repair. Page LNCS: 524	Josu Maiora, Guillermo García, Iván Macía, Jon Haitz Legarreta, Fernando Boto, Céline Paloc, Manuel Graña and Javier Sanchez Abuín

ROOM B
SESSION SS 12-2: Hybrid Artificial Intelligence Systems Based on Lattice Theory
Organizers: - Vassilis Kaburlasos
                - Juan Humberto Sossa
                - Cliff Joslyn
Chair: Manuel Graña

ID#	Title	Authors
919	Lattice Neural Networks with Spike Trains. Page LNCS: 963	Gerhard X. Ritter and Gonzalo Urcid
772	On Compactness and Consistency in Finite Lattice-Valued Propositional Logic. Page LNCS: 924	Xiaodong Pan, Yang Xu, Luis Martinez, Da Ruan, and Jun Liu
816	An Increasing Hybrid Morphological-Linear Perceptron with Evolutionary Learning and Phase Correction for Financial Time Series Forecasting. Page LNCS: 947	Ricardo de A. Araújo and Peter Sussner
858	Detecting Features from Confusion Matrices using Generalized Formal Concept Analysis. Page LNCS: 971	Carmen Peláez-Moreno and Francisco J. Valverde-Albacete
906	2-D Shape Representation and Recognition by Lattice Computing Techniques. Page LNCS: 978	V. G. Kaburlasos, A. Amanatiadis, and S. E. Papadakis
939	Median Hetero-Associative Memories Applied to the Categorization of True-Color Patterns. Page LNCS: 1013	Roberto A. Vázquez and Humberto Sossa
878	Reconciling Knowledge in social tagging web services. Page LNCS: 979	Gonzalo A. Aranda-Corral and Joaquín Borrego-Díaz

ROOM C
Session SS 10: Hybrid and Intelligent Techniques on Multimedia
Organizers: - Adriana Dapena (Session Chair)
                  - Daniel Iglesia
                  - Ramón Moreno

ID#	Title	Authors
902	Multimedia Elements in a Hybrid Multi-Agent System for the Analysis of Web Usability. Page LNCS: 811	E. Mosqueira-Rey, B. Baldonedo del Río, D. Alonso-Ríos, E. Rodríguez-Poch, and D. Prado-Gesto
871	An Approach for an AVC to SVC Transcoder with Temporal Scalability. Page LNCS: 819	Rosario Garrido-Cantos, José Luis Martínez, Pedro Cuenca and Antonio Garrido
873	A GPU-based DVC to H.264/AVC Transcoder. Page LNCS: 827	Alberto Corrales-García, Rafael Rodríguez-Sánchez, José Luis Martínez, Gerardo Fernández-Escribano, José M. Claver and José Luis Sánchez
758	Hybrid Color Space Transformation to Visualize Color Constancy. Page LNCS: 835	Ramón Moreno, José Manuel López-Guede, Alicia d'Anjou
786	A Novel Hybrid Approach to Improve Performance of Frequency Division Duplex Systems with Linear Precoding. Page LNCS: 843	Paula M. Castro, José A. García-Naya, Daniel Iglesia, and Adriana Dapena
901	Low Bit-Rate Video Coding with 3D Lower Trees (3D-LTW). Page LNCS: 851	Otoniel López, Miguel Martínez-Rach, Pablo Piñol, Manuel P. Malumbres, and José Oliver
904	Color video segmentation by dissimilarity based on edges. Page LNCS: 859	Lucía Ramos, Jorge Novo, José Rouco, Antonio Mosquera, and Manuel G. Penedo

21:30
Gala Dinner at "ni neu" restaurant

09:00 – 11:00
Session GT 5: General Track
Session GT 4: General Track

ROOM A
SESSION GT 5: General Track
Chair: Elsa Fernández Gómez de Segura

ID#	Title	Authors
845	Recognition of Manual Actions with Dimension Reduction and Dynamic Time Warping. Page LNCS: 221	M. Martin, J. Maycock, F. P. Schmidt and O. Kramer
863	Protecting Web Services against DoS Attacks: A Case-based Reasoning Approach. Page LNCS: 229	C. Pinzón, J. F. De Paz, C. Zato, J. Pérez
890	Ranked Tag Recommendation Systems based on Logistic Regression. Page LNCS: 237	J. R. Quevedo, E. Montañés, J. Ranilla, and I. Díaz
892	A Hybrid Robotic Control System using Neuroblastoma Cultures. Page LNCS: 245	J.M. Ferrández, V. Lorente , J.M. Cuadra , F. delaPaz , J. R. Álvarez-Sánchez , and E. Fernández
844	Image Segmentation with a Hybrid Ensemble of One-Class Support Vector Machines. Page LNCS: 254	Bogusław Cyganek
926	Power Prediction in Smart Grids with Evolutionary Local Kernel Regression. Page LNCS: 262	Oliver Kramer, Benjamin Satzger, and Jörg Lässig
912	Using Self-Organizing Maps for Intelligent Camera based User Interfaces. Page LNCS: 1082	Z. Banković, E. Romero, J. Blesa, J. M. Moya, D. Fraga, J. C. Vallejo, A. Araujo, P. Malagón, J. M. de Goyeneche, D. Villanueva, O. Nieto-Taladriz

ROOM B
SESSION GT 4: General Track
Chair: Alex Manhaes Savio

ID#	Title	Authors
749	Data Processing On Database Management Systems With Fuzzy Query. Page LNCS: 172	İrfan Şimşek, Vedat Topuz
798	A Hybrid Approach for Process Mining: Using From-to Chart Arranged by Genetic Programming. Page LNCS: 180	Eren Esgin, Pinar Senkul, Cem Cimenbicer
860	Continuous Pattern Mining Using the FCPGrowth Algorithm in Trajectory Data Warehouses. Page LNCS: 188	Marcin Gorawski and Pawel Jureczek
913	Hybrid approach for Language Identification oriented to Multilingual Speech Recognition in the Basque context. Page LNCS: 197	N.Barroso, K. López de Ipiña, A.Ezeiza, O. Barroso, U. Susperregi
947	An Approach of Bio-inspired Hybrid Model for Financial Markets. Page LNCS: 205	Dragan Simić, Vladeta Gajić, Svetlana Simić
823	Interactive and Stereoscopic Hybrid 3D Viewer of Radar Data with Gesture Recognition. Page LNCS: 213	Jon Goenetxea, Aitor Moreno, Luis Unzueta, Andoni Galdos, Alvaro Segura
895	A SVM and k-NN restricted stacking to improve land use and land cover classification. Page LNCS: 1089	Jorge Garcia-Gutierrez, Daniel Mateos-Garcia, and Jose C. Riquelme-Santos

11:00 – 11:15
Coffee Break

11:15 – 12:15
Keynote Lecture

ROOM A
Prof. James Llinas
"A Survey and Analysis of Frameworks and Framework Issues for Information Fusion Applications"

12:15 – 13:15
Keynote Lecture

ROOM A
Prof. Éloi Bossé
"Concepts, Models, and Tools for Information Fusion"

13:15 – 14:30
Lunch at Palacio Miramar

14:30 – 16:30
Session SS 14: Information Fusion: Frameworks and Architectures

ROOM A
SESSION SS 14: Information Fusion: Frameworks and Architectures
Organizers: - Jesús García Herrero (Session Chair)
                    - José Manuel Molina
                    - James Llinas

ID#	Title	Authors
948	Fusion of Single View Soft k-NN Classifiers for Multicamera Human Action Recognition. Page LNCS: 1031	Rodrigo Cilla, Miguel A. Patricio, Antonio Berlanga, and Jose M. Molina
949	Self-adaptive Coordination for Organizations of Agents in Information Fusion Environments. Page LNCS: 1039	Sara Rodríguez, Belén Pérez-Lancho, Javier Bajo, Carolina Zato and Juan M. Corchado
953	Sensor Management: a new paradigm for automatic video surveillance. Page LNCS: 1047	Lauro Snidaro, Ingrid Visentini, and Gian Luca Foresti
957	A Simulation Framework for UAV Sensor Fusion. Page LNCS: 1055	Enrique Martí, Jesús García, Jose Manuel Molina
958	An embeddable fusion framework to manage context information in mobile devices. Page LNCS: 1063	Ana M. Bernardos, Eva Madrazo, José R. Casar

16:30 – 17:00
Coffee Break

17.00 – 19:30
Session GT 6: General Track

ROOM A
SESSION GT 6: General Track
Chair: Carmen Hernández Gómez

| ID#	Title	Authors
733	Automatic quality inspection of percussion cap mass production by means of 3D machine vision and machine learning techniques. Page LNCS: 270	A. Tellaeche, R. Arana, A. Ibarguren, and J. M. Martinez-Otzeta
778	Speaker Verification and Identification using Principal Component Analysis based on Global Eigenvector Matrix. Page LNCS: 278	Minkyung Kim, Eunyoung Kim, Changwoo Seo, Sungchae Jeon
846	Hybrid approach for Automatic Evaluation of Emotion Elicitation oriented to people with intellectual disabilities. Page LNCS: 286	R. Martínez, K. López de Ipiña, E. Irigoyen, N. Asla
879	Fusion of fuzzy spatial relations. Page LNCS: 294	Nadeem SALAMAT, El-hadi Zahzah
773	Model Driven Image Segmentation using a genetic algorithm for structured data. Page LNCS: 310	Romain Raveaux, Guillaume Hillairet
824	Embodied moving-target seeking with prediction and planning. Page LNCS: 1074	Noelia Oses, Matej Homann, and Randal A. Koene

20:00 – 22:00
Closing Cocktail at Palacio Miramar

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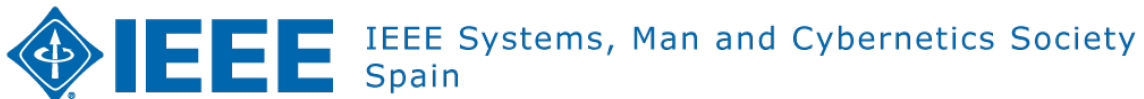
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