

# HAIS'10 5<sup>TH</sup> International Conference on Hybrid Artificial Intelligent Systems

23<sup>th</sup> to 25<sup>th</sup> June, 2010

San Sebastián, Palacio de Miramar

<http://www.ehu.es/ccwintco/hais2010>

## Detailed Programme

	June 22	June 23	Jun 24	June 25
8:30 – 9:00		Opening		
9:00 – 11:00		GT1   GT2	GT-3   SS12-1	GT-5   GT-4
11:00 – 11:15		Coffee	Coffee	Coffee
11:15 – 12:15		Prof. Mihai Datcu	Prof. Gerhard X. Ritter	Prof. James Llinas
12,15 – 13:15		Prof. Marios Polycarpou	Prof. Ali-Akbar Ghorbani	Prof. Éloi Bossé
13,15 – 14:30		Lunch	Lunch	Lunch
14,30 – 16:30		SS05   SS07&09   SS11	SS03-1   SS08   SS06	SS14
16,30 – 17:00	Registration	Coffee	Coffee	Coffee
17:30 – 20:00	Registration	SS01   GT-7   SS04	SS03-2   SS12-2   SS10	GT-6
19:30 – 20:30			SMC chapter technical meeting	
21:30 – 1:00			Gala dinner	

## ***Detailed Sessions***

### **Session GT-1**

HAIS10-GT-744	3	A Regular Tetrahedron Formation Strategy for Swarm Robots in Three-Dimensional Environment
HAIS10-GT-857	4	Markovian Ants in a Queuing System
HAIS10-GT-851	5	A parametric method applied to phase recovery from a fringe pattern based on a Particle Swarm Optimization
HAIS10-GT-891	6	Automatic PSO-Based Multi-modal Deformable Structures Markerless Tracking In Laparoscopic Cholecystectomy
HAIS10-GT-924	7	A Framework For Optimization Of Genetic Programming Evolved Classifier Expressions using Particle Swarm Optimization
HAIS10-GT-896	8	Developing an Intelligent Parking Management Application based on Multi-Agent Systems and Semantic Web Technologies

### **Session GT-2**

HAIS10-GT-921	9	Linked Multicomponent Robotic Systems: Basic Assessment of Linking Element Dynamical Effect
HAIS10-GT-829	10	Social simulation for AmI systems engineering
HAIS10-GT-876	11	Automatic Behavior Pattern Classification for Social Robots
HAIS10-GT-818	12	Healthcare Information Fusion using Context-Aware Agents
HAIS10-GT-840	14	Recognition of Turkish vowels by probabilistic neural networks using Yule-Walker AR method.
HAIS10-GT-732	16	A Dual Network Adaptive Learning Algorithm for Supervised Neural Network with Contour Preserving Classification for Soft Real Time Applications

### **Session GT-3**

HAIS10-GT-745	17	The Abnormal vs. Normal ECG Classification Based on Key Features and Statistical Learning
HAIS10-GT-767	18	Classification of wood fibre cross-sectional shapes
HAIS10-GT-832	19	A Hybrid Cluster-Lift Method for the Analysis of Research Activities
HAIS10-GT-843	20	Protein Fold Recognition with Combined SVM-RDA Classifier
HAIS10-GT-850	13	Multivariate discretization for associative classification in a sparse data application domain
HAIS10-GT-859	15	A Dynamic Bayesian Network based Structural Learning towards Automated Handwritten Digit Recognition

### **Session GT-4**

HAIS10-GT-749	21	Data Processing On Database Management Systems With Fuzzy Query
HAIS10-GT-798	22	A Hybrid Approach for Process Mining: Using From-to Chart Arranged by Genetic Algorithms
HAIS10-GT-860	23	Continuous Pattern Mining Using the FCPGrowth Algorithm in Trajectory Data Warehouses
HAIS10-GT-913	24	Hybrid approach for Language Identification oriented to Multilingual Speech Recognition in the Basque context
HAIS10-GT-947	25	An Approach of Bio-inspired Hybrid Model for Financial Markets
HAIS10-GT-823	26	Interactive and Stereoscopic Hybrid 3D Viewer of Radar Data with Gesture Recognition
HAIS10-GT-895	133	A SVM and k-NN restricted stacking to improve land use and land cover classification

### **Session GT-5**

HAIS10-GT-845	27	Recognition of Manual Actions with Dimension Reduction and Dynamic Time Warping
HAIS10-GT-863	28	Protecting Web Services against DoS Attacks: A Case-based Reasoning Approach
HAIS10-GT-890	29	Ranked Tag Recommendation Systems based on Logistic Regression
HAIS10-GT-892	30	A Hybrid Robotic Control System using Neuroblastoma Cultures
HAIS10-GT-844	31	Image Segmentation with a Hybrid Ensemble of One-Class Support Vector Machines
HAIS10-GT-926	32	Power Prediction in Smart Grids with Evolutionary Local Kernel Regression
HAIS10-GT-912	132	Using Self-Organizing Map for Intelligent Camera base User Interfaces

## Session GT-6

HAIS10-GT-733	33	Automatic quality inspection of percussion cap mass production by means of 3D machine vision and machine learning techniques
HAIS10-GT-778	34	Speaker Verification and Identification using Principal Component Analysis based on Global Eigenvector Matrix
HAIS10-GT-846	35	Hybrid approach for Automatic Evaluation of Emotion Elicitation oriented to people with intellectual disabilities
HAIS10-GT-879	36	Fusion of fuzzy spatial relations
HAIS10-GT-773	38	Model Driven Image Segmentation using a genetic algorithm for structured data
HAIS10-GT-824	131	Embodied moving-target seeking with prediction and planning

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HAIS10-GT-781	39	Stamping line optimization using Genetic Algorithms and Virtual 3D line simulation
HAIS10-GT-812	40	Evolutionary Industrial Physical Model Generation
HAIS10-GT-882	41	Evolving Neural Networks with Maximum AUC for Imbalanced Data Classification
HAIS10-GT-915	42	A Neuro-Genetic Control Scheme application for industrial R <sup>3</sup> workspaces
HAIS10-GT-916	43	Memetic Feature Selection: Benchmarking Hybridization Schemata
HAIS10-GT-938	45	GENNET-Toolbox: An Evolving Genetic Algorithm for Neural Network Training
HAIS10-GT-941	46	An Evolutionary Feature-Based Visual Attention Model Applied to Face Recognition
HAIS10-GT-905	37	Reducing Artifacts in TMS-Evoked EEG

## **Session SS01-Real World Applications and Data Uncertainty**

HAIS10-SS01-763	48	Efficient Plant Supervision Strategy using NN Based Techniques
HAIS10-SS01-799	49	FDI and accommodation using NN Based Techniques
HAIS10-SS01-825	50	A hybrid ACO approach to the Matrix Bandwidth Minimization Problem
HAIS10-SS01-830	51	Machine-Learning Based Co-Adaptive Calibration: a Perspective to fight BCI Illiteracy
HAIS10-SS01-819	52	Analysing the Low Quality of the Data in Lighting Control Systems
HAIS10-SS01-865	53	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
HAIS10-SS01-914	54	An Hybrid Architecture Integrating Forward Rules with Fuzzy Ontological Reasoning

## **Session SS03-1 Signal Processing and Biomedical applications 1**

HAIS10-SS03-753	55	Selecting regions of interest in SPECT images using Wilcoxon Test for the diagnosis of Alzheimer's disease
HAIS10-SS03-774	56	Effective Diagnosis of Alzheimer's Disease by means of Association Rules
HAIS10-SS03-780	57	Exploratory Matrix Factorization for PET Image Analysis
HAIS10-SS03-782	58	NMF-Based Analysis of SPECT Brain Images for the Diagnosis of Alzheimer's Disease
HAIS10-SS03-784	59	Partial Least Squares for feature extraction of SPECT images
HAIS10-SS03-800	60	Sensor Fusion Adaptive Filtering for Position Monitoring in Intense Activities

## **Session SS03-2 Signal Processing and Biomedical applications 2**

HAIS10-SS03-853	61	Prediction of Bladder Cancer Recurrences using Artificial Neural Networks
HAIS10-SS03-886	62	Hybrid Decision Support System for Endovascular Aortic Aneurysm Repair Follow-up
HAIS10-SS03-848	63	On the design of a CADs for Shoulder Pain Pathology
HAIS10-SS03-908	64	Exploring symmetry to assist Alzheimer Disease Diagnosis
HAIS10-SS03-930	65	Thrombus Volume Change Visualization after Endovascular Abdominal Aortic Aneurysm Repair

### **Session SS04 Method of classifier fusion**

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HAIS10-SS04-888	67	Multiple classifier system with radial basis weight function
HAIS10-SS04-911	68	Mixture of Random Prototype-based local Experts
HAIS10-SS04-791	69	Graph-based Model-Selection Framework for Large Ensembles
HAIS10-SS04-854	70	Rough Set-Based Analysis of Characteristic Features for ANN Classifier
HAIS10-SS04-917	71	Boosting Algorithm with Sequence-loss Cost Function for Structured Prediction
HAIS10-SS04-932	72	Application of Mixture of Experts to Construct Real Estate Appraisal Models
HAIS10-SS04-935	73	Designing fusers on the basis of discriminants - evolutionary and neural methods of training
HAIS10-SS04-964	135	A bio-inspired fusion method for data visualization

### **Session SS05 Knowledge extraction based on evolutionary learning**

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HAIS10-SS05-942	75	Evolving multi-label classification rules with gene expression programming: A preliminary study
HAIS10-SS05-752	76	Solving Classification problems using Genetic Programming Algorithms on GPUs
HAIS10-SS05-792	77	Analysis of the Effectiveness of G3PARM Algorithm
HAIS10-SS05-839	78	Reducing Dimensionality in Multiple Instance Learning with a Filter Method
HAIS10-SS05-923	79	Graphical exploratory analysis of educational knowledge surveys with missing and conflictive answers using evolutionary techniques

### **Session SS06 SMC by HAIS Workshop**

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HAIS10-SS06-874	81	Hybrid Multiagent System for Automatic Object Learning Classification
HAIS10-SS06-748	82	On the Use of a Hybrid Approach to Contrast Endmember Induction Algorithms
HAIS10-SS06-831	83	Self-emergence of Lexicon Consensus in a Population of Autonomous Agents by Means of Evolutionary Strategies
HAIS10-SS06-783	84	Enhanced Self Organized Dynamic Tree Neural Network
HAIS10-SS06-821	85	Agents and Computer Vision for Processing Stereoscopic Images
HAIS10-SS06-946	86	Incorporating Temporal Constraints in the Planning Task of a Hybrid Intelligent IDS
HAIS10-SS06-950	87	HERA: A New Platform for Embedding Agents in Heterogeneous Wireless Sensor Networks

### **Session SS07 Hybrid Intelligent Systems on Logistics**

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HAIS10-SS08-903	95	An Abstract Argumentation Framework for Supporting Agreements in Agent Societies
HAIS10-SS08-910	96	Reaching a common agreement discourse universe on Multi-Agent Planning
HAIS10-SS08-811	97	Integrating information extraction agents into a tourism recommender system

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HAIS10-SS09-918	99	Interactive Visualization Applets for Modular Exponentiation using Addition Chains
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HAIS10-SS10-873	102	A GPU-based DVC to H.264/AVC Transcoder
HAIS10-SS10-758	103	Hybrid Color Space Transformation to Visualize Color Constancy
HAIS10-SS10-786	104	A Novel Hybrid Approach to Improve Performance of Frequency Division Duplex Systems with Linear Precoding
HAIS10-SS10-901	105	Low Bit-Rate Video Coding with 3D Lower Trees (3D-LTW)
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## Session SS11

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