

	Wed. 11	Thu. 12			Fri. 13	
ROOM	Sala Menor	Sala Menor	Aula 2.3	Aula 2.4	Sala Menor	Aula 2.2
08:00	Registration (Open the whole day)					
08:30-09:30	SESSION <u>HAIS S1</u> Data Mining and Knowledge Discovery I	SESSION <u>HAIS S3A</u> Data Mining and Knowledge Discovery II	SESSION <u>HAIS S3B</u> SMC		SESSION <u>HAIS S5A</u> Video and Image Analysis	SESSION <u>HAIS S5B</u> Hybrid Intelligent Systems for Data Mining and Applications
09:30-10:30					SESSION <u>HAIS S6</u> Learning Algorithms	
10:30-11:00	10:30 - 10:50 Opening (Room: Sala Menor)	SMC-SC Meeting (Room: Sala Menor)			Coffee break	
	10:50-11:15 Coffee break	Coffee break				
11:00-12:00	11:15-12:00 Invited Talk-Prof. Hujun Yin Room: Sala Menor	Invited Talk - Prof. Manuel Graña Room: Sala Menor			Invited Talk - Prof. Hojjat Adeli Room: Sala Menor	
12:00-13:00	SESSION <u>HAIS S2</u> Bioinspired Models and Evolutionary Computation	SESSION <u>HAIS S4A</u> HAIS Applications			SESSION <u>HAIS S7</u> Agents and Multi Agents Systems	
13:00-14:00			SESSION <u>HAIS S4B</u> Classification and Cluster Analysis	SESSION <u>HAIS S8</u> Metaheuristics for Combinational Optimization and Modelling Complex Systems		
14:00-16:30	Lunch		Lunch			
	19:00 (18:30 at venue entrance) SALAMANCA COUNCIL WELCOME RECEPTION 19:45 SALAMANCA GUIDED TOUR AND VISIT TO SALAMANCA FAIR		SOCIAL ACTIVITIES AND GALA DINNER (Bus will depart at 16:00 from venue entrance) VISIT TO "CIUDAD RODRIGO"			

ROOM: Sala Menor

Wednesday 11

HAIS S1	HAIS S2
HAIS18	HAIS5
HAIS25	HAIS16
HAIS26	HAIS17
HAIS27	HAIS23
HAIS31	HAIS40
HAIS35	HAIS49
HAIS60	HAIS61
HAIS77	HAIS101
Luciano Sánchez Julian Luengo	Petrica Pop

Thursday 12

HAIS S3A	HAIS S4A
HAIS14	HAIS12
HAIS50	HAIS20
HAIS52	HAIS22
HAIS54	HAIS36
HAIS56	HAIS45
HAIS58	HAIS55
HAIS66	HAIS63
HAIS90	HAIS100
Irene Díaz	Jorge Gómez Sanz

Friday 13

HAIS S5A	HAIS S6	HAIS S7	HAIS S8
HAIS30	HAIS32	HAIS6	HAIS11
HAIS62	HAIS39	HAIS34	HAIS21
HAIS65	HAIS89	HAIS37	HAIS96
HAIS93	HAIS98	HAIS47	HAIS97
Dragan Simic Bruno Baruque	Andrzej Zolnierek	Juan Pavón María Moreno	José Ramón Villar Camelia Chira

Session Chair

ROOM: Aula 2.3

Thursday 12

HAIS S3B
HAIS8
HAIS15
HAIS38
HAIS42
HAIS59
HAIS67
HAIS84
HAIS95
Darya Chyzyk

Friday 13

HAIS S5B
HAIS10
HAIS19
HAIS28
HAIS33
HAIS41
HAIS53
HAIS68
HAIS74
Francisco Martínez

Session Chair

ROOM: Aula 2.4

Thursday 12

HAIS S4B
HAIS48
HAIS57
HAIS73
HAIS85

Sung Bae Cho

Session Chair

Session HAIS S1: Data Mining and Knowledge Discovery I

Date: Wednesday 11

Hour: 08:30 – 10:30

Room: Sala Menor

Chairs: **Luciano Sánchez, Julian Luengo**

Id paper	TITLE	Authors
HAIS18	A First Approach to Deal with Imbalance in Multi-label Datasets	Francisco Charte, Antonio Rivera, María José Del Jesus, Francisco Herrera
HAIS25	A Counting-based Heuristic for ILP-based Concept Discovery Systems	Alev Mutlu, Pinar Karagoz, Yusuf Kavurucu
HAIS26	Extracting Sequential Patterns Based on User Defined Criteria	Oznur Kirmemis Alkan, Pinar Karagoz
HAIS27	Sequence Alignment Adaptation for Process Diagnostics and Delta Analysis	Eren Esgin, Pinar Karagoz
HAIS31	Qualitative Reasoning on Complex Systems from Observations	Gonzalo A. Aranda-Corral, Joaquín Borrego-Díaz, Juan Galán-Páez
HAIS35	Reference Data Sets for Spam Detection: Creation, Analysis, Propagation	Marcin Luckner, Robert Filasiak
HAIS60	Simulating a collective intelligence approach to student team formation	Juan M. Alberola, Elena Del Val, Victor Sanchez-Anguix, Vicente Julian
HAIS77	Second Order Swarm Intelligence	Vitorino Ramos, David M.S. Rodrigues, Jorge Louçã

Session HAIS S2: Bioinspired Models and Evolutionary Computation

Date: Wednesday 11

Hour: 12:00 – 14:00

Room: Sala Menor

Chairs: **Petrica Pop**

Id paper	TITLE	Authors
HAIS5	A Hybrid Genetic Algorithm with Variable Neighborhood Search Approach to the Number Partitioning Problem	Levente Fuksz, Petrica Pop
HAIS16	Using ABC Algorithm with Shrinkage Estimator to Identify Biomarkers of Ovarian Cancer from Mass Spectrometry Analysis	Syarifahadilah M.Y., Rosni Abdullah, Ibrahim Venkat
HAIS17	Metaoptimization of Differential Evolution by Using Productions of Low-Number of Cycles: the Fitting of Rotation Curves of Spiral Galaxies as Case Study	Miguel Cárdenas-Montes, Miguel Á. Vega-Rodríguez, Mercedes Mollá
HAIS23	The Artificial Bee Colony Algorithm Applied to a Self-adaptive Grid Resources Selection Model	María Botón-Fernández, Miguel A. Vega Rodríguez, Francisco Prieto Castrillo
HAIS40	A Hybrid Algorithm Combining an Evolutionary Algorithm and a Simulated Annealing Algorithm to Solve a Collaborative Learning Team Building Problem	Virginia Yannibelli, Analía Amandi
HAIS49	Addressing Constrained Sampling Optimization Problems using Evolutionary Algorithms	Pilar Caamaño, Gervasio Varela, Richard Duro
HAIS61	Genetic Algorithm-based Allocation and Scheduling for Voltage and Frequency Scalable XMOS Chips	Zorana Banković, Pedro López-García
HAIS101	Hybrid Visualization for Deep Insight into Knowledge Retention in Firms	Lourder Sáiz, Miguel A. Manzanedo, Arturo Pérez, Álvaro Herrero, Emilio Corchado

Session HAIS S3A: Data Mining and Knowledge Discovery II

Date: Thursday 12

Hour: 08:30 – 10:30

Room: Sala Menor

Chairs: **Irene Díaz**

Id paper	TITLE	Authors
HAIS14	Hybrid Approach Using Rough Sets and Fuzzy Logic to Pattern Recognition Task	Andrzej Zolnierek, Marcin Majak
HAIS50	Modified dendrite morphological neural network applied to 3D object recognition on RGB-D data	Humberto Sossa, Elizabeth Guevara
HAIS52	Monitoring Mental Fatigue through the analysis of Keyboard and Mouse Interaction Patterns	André Pimenta, Davide Carneiro, Paulo Novais, José Neves
HAIS54	On Mining Sensitive Rules to Identify Privacy Threats	Irene Díaz, Luis J. Rodríguez, Luigi Troiano
HAIS56	An evidential and context-aware recommendation strategy to enhance interactions with smart spaces	Josué Iglesias, Ana M. Bernardos, José R. Casar
HAIS58	Information Fusion for Context Awareness in Intelligent Environments	Fábio Silva, Cesar Analide, Paulo Novais
HAIS66	Simply-integrated method of judgments of expert knowledge collected in databases for objective computer-aided engineering systems	Piotr Michalski, Mariusz Piotr Hetmańczyk, Jerzy Świder
HAIS90	A hybrid inference approach for building fuzzy DSSs based on clinical guidelines	Aniello Minutolo, Massimo Esposito, Giuseppe De Pietro

Session HAIS S3B: Systems, Man, and Cybernetics

Date: Thursday 12

Hour: 08:30 – 10:30

Room: Aula 2.3

Chairs: **Darya Chyzyk**

Id paper	TITLE	Authors
HAIS8	Borderline kernel based over-sampling	María Pérez-Ortiz, Pedro Antonio Gutiérrez, Cesar Hervás-Martínez
HAIS15	Discrimination of resting-state fMRI for Schizophrenia patients with Lattice Computing based features	Darya Chyzyk, Manuel Graña
HAIS38	Enhancing Active Learning Computed Tomography Image Segmentation with Domain Knowledge	Borja Ayerdi, Josu Maiora, Manuel Graña
HAIS42	Evolutionary ordinal extreme learning machine	Javier Sánchez-Monedero, Pedro Antonio Gutiérrez, Cesar Hervás-Martínez
HAIS59	Arm Orthosis/Prosthesis control based on surface EMG signal extraction	Aaron Suberbiola, Ekaitz Zulueta

		Jose Manuel Lopez-Guede, Ismael Etxeberria-Agiriano, Bren Van Caesbroeck
HAIS67	Application possibilities of hardware implemented hybrid neural networks to support independent life of elderly people	Stefan Oniga, Petrica Pop-Sitar
HAIS84	Multi-agent reactive planning for solving plan failures	Cesar Guzman, Pablo Castejon, Eva Onaindia, Jeremy Frank
HAIS95	A discussion on trust requirements for a social network of eahoukers	Manuel Graña, J. David Nuñez-Gonzalez, Bruno Apolloni

Session HAIS S4A: HAIS Applications

Date: Thursday 12

Hour: 12:00 – 14:00

Room: Sala Menor

Chairs: **Jorge Gómez Sanz**

Id paper	TITLE	Authors
HAIS12	Best Fuzzy Partitions to Build Interpretable DSSs for Classification in Medicine	Marco Pota, Massimo Esposito, Giuseppe De Pietro
HAIS20	An ontological and agent-oriented modeling approach for the specification of intelligent ambient assisted living systems for Parkinson patients	Iván García-Magariño, Jorge J. Gómez-Sanz
HAIS22	Clinical Careflows aided by Uncertainty Representation Models	Tiago Oliveira, João Neves, Ernesto Barbosa, Paulo Novais
HAIS36	Support Vector Forecasting of Solar Radiation Values	Yvonne Gala, Ángela Fernández, Julia Díaz, José Dorronsoro
HAIS45	A Hybrid Approach for the Verification of Integrity Constraints in Clinical Practice Guidelines	Marco Iannaccone, Massimo Esposito, Giuseppe De Pietro
HAIS55	Hippocampus Localization Guided by Coherent Point Drift Registration Using Assembled Point Set	Anusha Achuthan, Mandava Rajeswari, Win Mar Salmah Jalaluddin
HAIS63	A HMM-based Location Prediction Framework with Location Recognizer Combining k-Nearest Neighbor with Multiple Decision Trees	Yong-Joong Kim, Sung-Bae Cho
HAIS100	A Hybrid Fuzzy Approach to Facility Location Decision-Making	Dragan Simić, Vasa Svirčević, Svetlana Simić

Session HAIS S4B: Classification and Cluster Analysis

Date: Thursday 12

Hour: 13:00 – 14:00

Room: Aula 2.4

Chairs: **Sung Bae Cho**

Id paper	TITLE	Authors
HAIS48	Network Anomaly Classification by Support Vector Classifiers Ensemble and Non-Linear Projection Techniques	Eduardo de La Hoz, Andrés Ortiz, Julio Ortega, Emiro de La Hoz
HAIS57	Classification Method for Differential Diagnosis based on the Course of Episode of Care	Adrian Popiel, Tomasz Kajdanowicz, Przemyslaw Kazienko, Jean Karl Soler, Derek Corrigan, Vasa Curcin, Roxana Danger Mercaderes, Brendan Delaney
HAIS73	Density-Based Clustering in Cloud-Oriented Collaborative Multi-Agent Systems	Jelena Fiosina, Maksims Fiosins
HAIS85	Construction of Sequential Classifier Based on Broken Stick Model	Robert Burduk, Pawel Trajdos

Session HAIS S5A: Video and Image Analysis

Date: Friday 13

Hour: 08:30 – 09:30

Room: Sala Menor

Chairs: **Dragan Simic, Bruno Baruque**

Id paper	TITLE	Authors
HAIS30	Fall Detection using Kinect Sensor and Fall Energy Image	Bogdan Kwolek, Michal Kepski
HAIS62	Diversity measures for majority voting in the spatial domain	Andras Hajdu, Lajos Hajdu, Laszlo Kovacs, Henrietta Toman
HAIS65	How do you help a robot to find a place? A supervised learning paradigm to semantically infer about places	Ioannis Kostavelis, Angelos Amanatiadis, Antonios Gasteratos
HAIS93	The Impact of Pre-Processing in a Facial Recognition System	Guillermo Calvo, Bruno Baruque, Emilio Corchado

Session HAIS S5B: Hybrid Intelligent Systems for Data Mining and Applications

Date: Friday 13

Hour: 08:30 – 10:30

Room: Aula 2.2

Chairs: **Francisco Martínez Álvarez**

Id paper	TITLE	Authors
HAIS10	Querying on Fuzzy Surfaces with Vague Queries	Jan Caha, Jiří Dvorský
HAIS19	An experimental case of study on the behavior of Multiple Classifier Systems with class noise datasets	José A. Sáez, Mikel Galar, Julián Luengo, Francisco Herrera
HAIS28	A sensitivity analysis for quality measures of quantitative association rules	María Martínez-Ballesteros, Francisco Martínez-Álvarez, Alicia Troncoso, José C. Riquelme
HAIS33	Building a Robust Extreme Learning Machine for Classification in the Presence of Outliers	Ana Luiza B. P. Barros, Guilherme A. Barreto
HAIS41	Handling Inconsistencies in the Revision of Probability Distributions	Fabian Schmidt, Jan Wendler, Jörg Gebhardt Rudolf Kruse
HAIS53	Creating Knowledge Base from Automatically Extracted Information	Beata Nachyla
HAIS68	Noisy Data Set Identification	Luis Paulo F. García, Andre C.P.L.F. de

HAIS74	Movie Recommendation Framework using Associative Classification and a Domain Ontology	Carvalho, Ana C. Lorena María N. Moreno, Saddys Segrera, Vivian F. López, María Dolores Muñoz, Ángel Luis Sánchez
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Session HAIS S6: Learning Algorithms

Date: Friday 13

Hour: 09:30 – 10:30

Room: Sala Menor

Chairs: **Andrzej Zolnierek**

Id paper	TITLE	Authors
HAIS32	MLG: Enhancing multi-label classification with Modularity-based Label Grouping	Piotr Szymański, Tomasz Kajdanowicz
HAIS39	Intelligent System for Channel Prediction in the MIMO-OFDM Wireless Communications Using a Multidimensional Recurrent LS-SVM	Jerzy Martyna
HAIS89	Template-Based Synthesis of Plan Execution Monitors	Thomas Reinbacher, César Guzmán
HAIS98	Distributed Privacy-Preserving Minimal Distance Classification	Bartosz Krawczyk, Michał Woźniak

Session HAIS S7: Agents and Multi Agents Systems

Date: Friday 13

Hour: 12:00 – 13:00

Room: Sala Menor

Chairs: **Juan Pavón, María Moreno**

Id paper	TITLE	Authors
HAIS6	An agent based implementation of proactive S-Metaheuristics	Mailyn Moreno, Alejandro Rosete, Juan Pavón
HAIS34	Integration of Self-Organization and Cooperation Mechanisms to Enhance Service Discovery	Elena Del Val, Miguel Rebollo, Vicente Botti
HAIS37	Agent Participation in Context-Aware Workflows	José María Fernández-de-Alba, Rubén Fuentes-Fernández, Juan Pavón
HAIS47	PHAT: Physical Human Activity Tester	Pablo Campillo-Sanchez, Jorge Gomez-Sanz, Juan A. Botía

Session HAIS S8: Metaheuristics for Combinational Optimization and Modelling Complex Systems

Date: Friday 13

Hour: 13:00 – 14:00

Room: Sala Menor

Chairs: **José Ramón Villar, Camelia Chira**

Id paper	TITLE	Authors
HAIS11	Human Activity Recognition and feature selection for stroke early diagnosis	José Ramón Villar, Silvia González, Javier Sedano, Camelia Chira, José M. Trejo
HAIS21	Using a Hybrid Cellular Automata Topology and Neighborhood in Rule Discovery	Anca Andreica, Camelia Chira
HAIS96	An extension of the FURIA classification algorithm to low quality data	Ana Maria Palacios, Luciano Sanchez, Inés Couso
HAIS97	Model and Feature Selection in Hidden Conditional Random Fields with Group Regularization	Rodrigo Cilla, Miguel A. Patricio, Antonio Berlanga, José M. Molina