

List of Contributions

The contributed papers are grouped along thematic sessions and organized in oral presentations or posters.

Oral Presentations

Session on Logic, Satisfiability, Fuzzy Sets

- 37. Clause Branching in MaxSAT and MinSAT.
Josep Argelich, Chu-Min Li, Felip Manyà and Joan Ramon Soler
- 47. DeciMaxSum: Using Decimation to Improve Max-Sum on Cyclic DCOPs.
Jesus Cerquides, Rémi Emonet, Gauthier Picard and Juan A. Rodríguez-Aguilar
- 22. Style painting classifier based on Horn clauses and Explanations (SHE).
Vicent Costa, Pilar Dellunde and Zoe Falomir
- 16. A lattice structure for the set of interval-valued fuzzy-qualitative labels.
Francesc Prats, Mónica Sánchez and Núria Agell

Session on Classifiers, Networks and Machine Learning

- 4. The Effect of Space-Time Representation Learning in Predicting People's Next Location.
Abdulrahman Al-Molegi and Antoni Martínez Ballesté.
- 54. Quaternion Phase CNN.
E. Ulises Moya-Sánchez, Sebastian Colores, Abraham Sánchez and Ulises Cortés.
- 9. Towards a Universal Neural Network Encoder for Time Series.
Joan Serrà, Santiago Pascual and Alexandros Karatzoglou
- 19. Determining Classic versus Modern Style in Fashion.
Javier Tauste, Miguel Angel González, Lledó Museros, Ismael Sanz, Dolores Llidó and Luis Gonzalez-Abril.

Session on Data Science, Recommender Systems and Case-based Reasoning

- 8. A method to integrate semantic criteria into a recommender system based on ELECTRE outranking relations.
Sílvia Buira and Aida Valls

55. Web pattern navigation profiling for online marketing campaigns design support under a data science approach.
Arturo Palomino and Karina Gibert
28. *Feature-Tree Labeling for Case Base Maintenance.*
Nariman Nakhjiri, Maria Salamó and Miquel Sànchez-Marrè
43. On the analysis of utility and risk for masked data in big data: a small data analysis.
Vicenç Torra

Session on Natural Language and Sound Processing

26. An Argumentation Approach for Agreement Analysis in Reddit Debates.
Teresa Alsinet, Josep Argelich, Ramón Béjar and Santi Martínez
41. Tweet sentiment visualization and classification using manifold dimensionality reduction.
Francisco Grimaldo, Emilia López-Iñesta, Juan José Garcés-Iniesta, Juan Gómez-Sanchis, Daniel García-Costa, Eusebio Marqués-Benítez and Emilio Soria-Olivas
13. N-Channel Convolutional Neural Networks for Irony Detection in Twitter.
Mohammed Jabreel, Najlaa Maarooof, Ammar Acran and Antonio Moreno
5. Enhancing Text Spotting with a Language Model and Visual Context Information.
Ahmed Sabir, Francesc Moreno-Noguer and Lluís Padró.

Session on Computer Vision and Cognitive Agents

30. CuisineNet: Food Attributes Classification using Multi-scale Convolution Network.
Md. Mostafa Kamal Sarker, Mohammed Jabreel, Hatem A. Rashwan, Syeda Furraka Banu, Vivek Kumar Singh, Antonio Moreno, Petia Radeva and Domènec Puig
33. Retinal Optic Disc Segmentation using Conditional Generative Adversarial Network.
Vivek Kumar Singh, Hatem A. Rashwan, Farhan Akram, Nidhi Pandey, Md. Mostafa Kamal Sarker, Adel Saleh, Saddam Abdulwahab, Najlaa Maarooof, Jordina Torrents Barrena, Santiago Romani and Domènec Puig
46. An approach to Gait Analysis from Human-Rollator Interaction: The i-Walker.
Atia Cortés, Maribel Ojeda, Javier Béjar and Antonio B. Martínez
39. Sentient Embodied Conversational Agents: Architecture and Evaluation.
Dolça Tellols, Maite Lopez-Sanchez, Inmaculada Rodriguez and Pablo Almajano

Posters

Session 1

Cognitive Systems and Agents

53. What is the Physics of Intelligence?.
Xerxes D. Arsiwalla, Camilo M. Signorelli, Jordi-Ysard Puigbò, Ismael T. Freire and Paul Verschure
11. Using wearable sensors to detect workload on driving simulated scenarios.
Víctor Corcoba, Zoe Falomir and Nourelhoda Mohamed
44. Limits of Multi-Agent Predictive Models in the Formation of Social Conventions.
Ismael T. Freire, Xerxes D. Arsiwalla, Jordi-Ysard Puigbò and Paul F. M. J. Verschure
17. Cognitive Architecture: the key to AI-Based Digital Transformation in Organizations.
Karla Olmos-Sánchez and Jorge Rodas-Osollo
45. Loss aversion fosters coordination in independent reinforcement learners.
Marco Jerome Gasparrini, Martí Sánchez-Fibla

Data Science, Recommender Systems and Case-based Reasoning

27. Big Data Analytics for Obesity Prediction.
Ahsan Bilal, Alfredo Vellido and Vicent Ribas
38. A Study on Contextual Influences on Automatic Playlist Continuation.
Anna Gatzoura, Miquel Sànchez-Marrè and Alípio Mário Jorge
29. eXiT*CBR: a tool supporting RRI.
Beatriz López and Carles Pous
56. Including Hard Restrictions into Diet4You Menu Planner.
Beatriz Sevilla-Villanueva, Karina Gibert and Miquel Sànchez-Marrè
49. On Boolean algebras of conditionals and probabilities of conditionals.
Tommaso Flaminio, Lluís Godó and Hykel Hosni

Natural Language and Sound Processing

15. Do Positive Twitter Messages Have Impact on Stock Liquidity?.
Aliasghar Abdirahmani and Cecilio Angulo

- 52. A new algorithm for speech enhancement based on multivariate empirical mode decomposition.
Pere Marti-Puig, Esteve Gallego-Jutglà, Gerard Masferrer and Jordi Solé-Casals
- 25. Classifying and Generalizing Successful Parameter Combinations for Sound Design.
Iván Paz, Àngela Nebot, Francisco Múgica and Enrique Romero
- 3. A Visual Distance for WordNet.
Raquel Pérez-Arnal, Armand Vilalta, Dario Garcia-Gasulla, Ulises Cortés, Eduard Ayguadé and Jesus Labarta

Session 2

Classifiers, Networks and Machine Learning

- 1. Towards Detecting Structures in Computational Astrophysics Plasma Simulations: using Machine Learning for Shock Front Classification.
Carmen Aloy Torás, Petar Mimica and Marcelino Martínez Sober
- 18. Complex Network Multiresolution for Optimal Sensor Placement in Big Urban Infrastructures.
Manuel Herrera, Robert Wright, Carlo Giudicianni, Armando di Nardo and Joaquín Izquierdo
- 10. Go with the Flow: Recurrent Networks for Wind Time Series Multi-Step Forecasting.
Jaume Manero, Javier Béjar and Ulises Cortés
- 24. Sorting Hams using Bagged Decision Trees in a commercial pig slaughterhouse.
Gerard Masferrer, Ricard Carreras, Pere Marti-Puig and Moises Serra
- 36. A Fuzzy Learning Method to Segment Visitors of a Tourist Attraction.
Jennifer Nguyen, Albert Armisen, German Sánchez-Hernández, Núria Agell and Cecilio Angulo
- 2. Measuring distances between medical entities. Step 1: DrugBank.
Alberto Olivares-Alarcos, Iva Stankovic, Humberto González and Horacio Rodríguez
- 51. Unsupervised Systems-Level Learning Mechanism Based on Bayesian-Inference.
Jordi-Ysard Puigbò, Xerxes D. Arsiwalla and Paul Verschure

Computer Vision and Robotics

23. Brain MR Image Segmentation Using Multiphase Active Contours Based on Local and Global Fitted Images.
Farhan Akram, Vivek Kumar Singh, Md. Mostafa Kamal Sarker, Miguel Angel Garcia and Domènec Puig
48. Hybr-iT Project: Initial Steps Towards Contextual Robotic Manipulation for Human-Robot Teams in Industrial Environments.
José de Gea Fernández, Nils Niemann, Sebastian Stock, Martin Günther, Dennis Mronga, Hendrik Wiese, Elsa Kirchner, Stefan Stiene
32. Considering the Anchoring Problem in Robotic Intelligent Bin Picking.
Diego Escudero-Rodrigo and René Alquézar
31. Vehicle Pose Estimation using G-Net: Multi-Class Localization and Depth Estimation.
Javier García López, Antonio Agudo and Francesc Moreno-Noguer
7. Foreground detection in a multi-target fish tracking from video-recordings using U-net based architecture.
Ramon Reig-Bolano, Moises Serra i Serra and Pere Marti-Puig
40. On Improving Breast Density Segmentation using Conditional Generative Adversarial Networks.
Nasibeh Saffari, Hatem A. Rashwan, Blas Herrera and, Santiago Romani, Meritxell Arenas and Domènec Puig