



Site: Assembly hall (2.03, 2nd floor). Escola Politècnica Superior. Campus de Cap Pont. Universitat de Lleida. C/. Jaume II, 69. 25001 Lleida. <https://g.page/EPS-UdL>

Welcome. Wednesday 20, 15:00-15:15

ACIA awards. Wednesday 20, 15:15-17:15

- ACIA award: Best TFG/TFM (15:15-15:40)
- Marc Esteva Vivanco award: Best PhD Thesis (15:40-16:20)
- ACIA award: Best CCIA'21 paper (16:20-16:45)
- ACIA award: Social good (16:45-17:00)
- ACIA award: AI diffusion (17:00-17:15)

Short presentations. Wednesday 20, 17:20-17:50

Chair: **Mateu Villaret**

- ARIS: un MOOC d'introducció a la IA, Javier Larrosa, UPC
- NLP challenges and solutions in Science of Science, Daniel García-Costa i Francisco Grimaldo, UV
- Activitats de donesIAcat i reflexions sobre el paper de la dona en la IA a Catalunya, Karina Gibert, IDEAI-UPC

ACIA assembly . Wednesday 20, 18:00

Invited talk. Thursday 21, 9:00-10:00

Joao Marques-Silva

- Automated Reasoning in Explainable AI

Chair: **Cèsar Fernández**

Paper sessions. Thursday 21, 10:00-11:00

Explainability, Argumentation I

Chair: **Eva Armengol**

- Improving on-line debates by aggregating citizen support. Maite Lopez-Sanchez, Marc Serramià, Juan A. Rodriguez-Aguilar
- Deep Causal Graphs for Causal Inference, Black-Box Explainability and Fairness. Álvaro Parafita, Jordi Vitrià
- Contextualized LORE for Fuzzy Attributes. Najlaa Al-Ziyadi, Antonio Moreno, Mohammed Jabreel, Aïda Valls

Paper sessions. Thursday 21, 11:20-12:20

Sentiment Analysis, Text Analysis

Chair: **Juan Antonio Rodríguez**

- Countering Negative Effects of Hate Speech in a Multi-Agent Society. Arthur Müller, Maite Lopez-Sanchez
- Discovering dominant users' opinions in Reddit. Teresa Alsinet, Josep Argelich, Ramón Béjar, Santi Martínez
- Argumentation Reasoning with Graph Neural Networks for Reddit Conversation Analysis. Teresa Alsinet, Josep Argelich, Ramon Béjar, Dani Gibert, Jordi Planes, Nil Torrent

Poster session. Thursday 21, 12:30-13:30

Chair: **Jordi Planes**

Combinatorial Problem Solving, Logics for Artificial Intelligence

- *On probabilistic logical argumentation based on conditional probability.* Pilar Dellunde, Lluís Godo, Amanda Vidal
- *Some advances on the solution of the generalized law of importation for fuzzy implication functions.* Isabel Aguilo Pons, Sebastia Massanet, Juan Vicente Riera
- *Enabling Game-Theoretical Analysis of Social Rules.* Nieves Montes, Carles Sierra, Nardine Osman

Sentiment Analysis, Text Analysis

- *Learning Cognitive-Affective Digital Twins from Social Networks.* Andrea Navarro, Lledó Museros, Rafael Berlanga
- *A common formal framework for factorial and probabilistic topic modelling techniques.* Karina Gibert, Yaroslav Hernandez-Potiomkin

Explainability, Argumentation

- *Applying and verifying an explainability method based on policy graphs in the context of Reinforcement Learning.* Antoni Climent, Dmitry Gnatyshak, Sergio Alvarez-Napagao

Computer Vision

- *On Determining Suitable Embedded Devices for Deep Learning Models.* Daniel Padilla Carrasco, Hatem A. Rashwan, Domenec Puig
- *Prostate cancer detection in MRI images using radiomics and deep learning segmentation models.* Eddardaa Ben Loussaief, Mohamed Abdel-Nasser, Domenec Puig
- *Lesion Detection in Breast Tomosynthesis Using Efficient Deep Learning and Data Augmentation Techniques.* Loay Hassan, Mohamed Abel-Nasser, Adel Saleh, Domenec Puig
- *Designing Chest X-ray Datasets for Improving Lung Nodules Detection through Convolutional Neural Networks.* Raúl Pedro Aceñero Eixarch, Raúl Díaz-Usechi Laplaza, Rafael Berlanga
- *Affective State-based Framework for e-learning Systems.* Juan Antonio Rodríguez García, Joaquim Comas Martínez, Xavier Binefa Valls
- *No-Reference Digital Image Quality Assessment Based on Structure Similarity.* Basma Ahmed, Mohamed Abdel-Nasser, Osama Omer, Amal Rashed, Domenec Puig
- *Promising Depth Map Prediction Method from a Single Image based on Conditional Generative Adversarial Network.* Saddam Abdulwahab, Hatem A. Rashwan, Armin Masoumian, Najwa Sharaf, Domenec Puig

Poster debate rooms. Thursday 21, 13:30-14:10

- **Room 1. Combinatorial Problem Solving, Logics for Artificial Intelligence. Sentiment Analysis, Text Analysis. Explainability, Argumentation**
Chair: **Maite López**
- **Room 2. Computer Vision**
Chair: **Cecilio Angulo**

Paper sessions. Thursday 21, 15:15-17:15

Combinatorial Problem Solving, Logics for Artificial Intelligence I

Chair: **Ramón Béjar**

- *Application of CMSA to the Minimum Positive Influence Dominating Set Problem.* Mehmet Anil Akbay, Christian Blum
- *From Non-Clausal MinSAT to Clausal MinSAT.* Chu-Min Li, Felip Manyà, Joan Ramon Soler, Amanda Vidal Wandelmer
- *Perceptual maps to aggregate information from decision makers.* Olga Porro, Francesc Pardo-Bosch, Mónica Sánchez, Núria Agell
- *On the Temperature of SAT Formulas.* Jesús Giráldez-Cru, Pedro Almagro-Blanco
- *Choosing the Root of the Tree-Decomposition when Solving WCSPs: Preliminary Results.* Aleksandra Petrova, Javier Larrosa, Emma Rollon
- *Exploring Lifted Planning Encodings in Essence Prime.* Joan Espasa Arxer, Jordi Coll, Mateu Villaret, Ian Miguel

Paper sessions. Thursday 21, 17:30-19:30

Computer Vision I

Chair: **Lledó Museros**

- *Segmenting the Optic Disc using a Deep Learning Ensemble Model based on OWA Operators.* Mohammed Ali, Mohamed Abdelnasser, Mohammed Jabreel, Aïda Valls, Marc Baget
- *Absolute distance prediction based on deep learning object detection and monocular depth estimation models.* Armin Masoumian, David George Farouk Marei, Saddam Abdulwahab, Julián Cristiano, Domenec Puig Valls, Hatem A. Rashwan
- *WEU-Net: A Weight Excitation U-Net for Lung Nodule Segmentation.* Syeda Furraka Banu, Md. Mostafa Kamal Sarker, Mohamed Abdel-Nasser, Hatem A. Rashwan, Domenec Puig
- *Reliable Deep Learning Plant Leaf Disease Classification Based on Light-Chroma Separated Branches.* Joao Paulo Schwarz Schuler, Santiago Romani, Mohamed Abdel-Nasser, Hatem Rashwan, Domenec Puig
- *Grouped Pointwise Convolutions Significantly Reduces Parameters in EfficientNet.* Joao Paulo Schwarz Schüler, Santiago Romani, Mohamed Abdel-Nasser, Hatem Rashwan, Domenec Puig

Invited talk. Friday 22, 9:00-10:00

Patty Kostkova

- **Digital Public Health Technologies and Social Media in Global Emergencies**

Chair: **Aïda Valls**

Paper sessions. Friday 22, 10:00-11:00

Explainability, Argumentation II

Combinatorial Problem Solving, Logics for Artificial Intelligence II

Computer Vision II

Chair: **Isabel Aguiló**

- *On the rationality of explanations in classification algorithms.* Zoe Falomir, Vicent Costa
- *A Cognitively-Inspired Model for Making Sense of Hasse Diagrams.* Dimitra Bourou, Marco Schorlemmer, Enric Plaza
- *Efficient Fundus Image Gradeability Approach Based on Deep Reconstruction-Classification Network.* Saif Khalid, Saddam Abdulwahab, Mohamed Abdel-Nasser, Domenec Puig, Hatem A.Rashwan, Julián Cristiano

Paper sessions. Friday 22, 11:20-12:20

Machine Learning

Data Science, Decision Support Systems

Chair: **Julià Minguillón**

- *Towards Expert-inspired Automatic Criterion to Cut a Dendrogram for Real-Industrial Applications.* Shikha Suman, Ashutosh Karna and Karina Gibert
- *Limits of conventional Machine Learning methods to predict pregnancy and multiple pregnancy after embryo transfer.* Nuria Correa, Rita Vassena, Jesus Cerquides, Josep Lluís Arcos
- *We Are Not the Same Either Playing: a Proposal for Adaptive Gamification.* Inmaculada Rodríguez, Anna Puig, Alex Rodríguez

Poster session. Friday 22, 12:30-13:30

Chair: **Tere Alsinet**

Data Science, Decision Support Systems

- *The emotional impact of hotel room colour in Spanish and Ecuadorian tourists.* Monica P. Buenaño, Luis Gonzalez-Abril, Lledó Museros
- *A Customer Churn Detection Model for the Pay-TV Sector.* Vicente López, Rebeca Egea, Lledó Museros, Ismael Sanz
- *On the Convergence of Financial Distress Propagation on Generic Networks.* Bernat Salbanya, Jordi Nin, Irene Unceta
- *Supporting enrollment in higher education through a visual recommendation system.* Julià Minguillón, Noe Rivas, Jonathan Chacón
- *Data-driven analysis of Friction Stir Welding for aerospace applications.* Marta Camps, Maddi Etxegarai, Francesc Bonada, William Lacheney, Dorick Ballat-Durand, Sylvain Pauleau, Xavier Domingo

Machine Learning

- *Combining Simulations and Machine Learning for Efficient Prediction of Process Parameters Evolution in Injection Moulding.* Albert Abio, Francesc Bonada, Oriol Pujol
- *Iterative update of a Random Forest classifier for Diabetic Retinopathy.* Jordi Pascual Fontanilles, Aida Valls, Antonio Moreno, Pedro Romero Aroca
- *Anomaly Detection for Diagnosing Failures in a Centrifugal Compressor Train.* Ian Palacín, Jordi Planes, Simone Arena, Daniel Gibert, Pier Francesco Orrù
- *Pulse identification using Support Vector Machines.* Josep Puyol-Gruart, Pere Garcia Calvés, Jesús Vega, Maria Teresa Ceballos, Bea Cobo, Francisco J. Carrera

- *Validation on Real Data of an Extended Embryo-Uterine Probabilistic Graphical Model for Embryo Selection.* Adrián Torres-Martín, Jerónimo Hernández-González, Jesús Cerquides
- *Collection, processing and analysis of heterogeneous data coming from Spanish hospitals in the context of COVID-19.* Marta Barroso, Adrián Tormos, Raquel Pérez-Arnal, Sergio Alvarez-Napagao, Dario Garcia-Gasulla
- *Cutting tool wearing identification through predictive maintenance and its impact on surface quality.* Jose Maria Gonzalez Castro, Francesc Bonada, Giselle Ramirez Sandoval, Eduard Vidales Coca, Nuri Cuadrado Lafoz
- *Mental Workload Detection based on EEG Analysis.* Jose Yauri, Aura Hernández, Paul Folch, Débora Gil
- *Alternation measures for the evaluation of selfish agents' turn-taking.* Nikolaos Papadopoulos, Martí Sánchez Fibla

Poster debate rooms. Friday 22, 13:30-14:10

- **Room 1. Data Science, Decision Support Systems**
Chair: Núria Agell
- **Room 2. Machine Learning**
Chair: Antonio Moreno

Closure. Friday 22, 14:10-14:30