

		Sala Menor	Auditorio	Aula 1.1	Aula 1.2			Sala Menor	Auditorio	Aula 1.1	Aula 1.2	
5th - TUESDAY		6th - WEDNESDAY				7th - THURSDAY						
		9:00	REGISTRATION (Open all day) Hospedería Fonseca				9:00	REGISTRATION (Open all day) Hospedería Fonseca				
		09:00 - 11:00	H1	H3	S1	S3	09:00 - 11:00	H9		S6	I1	
		11:00 - 12:00	H2	H4	S2		11:00 - 11:30	COFFEE BREAK (Coffee Shop Hospedería Fonseca)				
		12:00 - 14:00	STARTUP OLE EVENTS				11:30 - 12:30	PLENARY TALK - Prof. Michał Woźniak (SALA MENOR)				
		14:00 - 15:30	NETWORKING COCKTAIL - LUNCH (CLAUSTRO COLEGIO FONSECA)				12:30 - 14:00	C3	H10	S7	I2	
		15:30 - 16:30	C1	H5	S4	H7	14:00 - 15:30	LUNCH (SITTING) Fonseca Restaurant				
17:00 - 19:00	REGISTRATION Hospedería Fonseca	16:30 - 17:00	OPENING HAIS-SOCO-CISIS-ICEUTE (SALA MENOR)				15:30 - 17:00	C4	H11	S8	I3	
		17:00 - 18:00	PLENARY TALK - Prof. Hujun Yin (SALA MENOR)					PLENARY TALK - Prof. Oscar Córdón (SALA MENOR)				
		18:00 - 18:30	COFFEE BREAK (Coffee Shop Hospedería Fonseca)				18:00 - 18:30	COFFEE BREAK (Coffee Shop Hospedería Fonseca)				
		18:30 - 20:30	C2	H6	S5	H8	18:30-20:30	H12		S9	S10	
21:15	STARTUP OLÉ PARTY (CONGRESS PARTICIPANTS INVITED) (CLAUSTRO COLEGIO FONSECA)	21:00	COCKTAIL (CLAUSTRO COLEGIO FONSECA)				GALA DINNER Lilicook Gastrobar C. Espoz y Mina, 22, 37002 Salamanca					

Session	Title	Authors	Conf. ID
H AIS Conference			
Anomaly and Fault Detection			
H1	One-Class Reconstruction Methods for Categorizing DoS Attacks on CoAP	Álvaro Michelena Grandío, Antonio Diaz-Longueira, Miriam Timiraos, Esteban Jove, José Aveleira Mata, Isaias Garcia, Maria Teresa Garcia-Ordas, Jose Luis Calvo-Rolle and Hector Alaiz Moreton	1322
	Application of anomaly detection models to malware detection in the presence of concept drift	David Escudero García and Noemí Decastro-García	2735
	Identification of anomalies in urban sound data with Autoencoders	Laura Melgar-García, Maryam Hosseini and Alicia Troncoso	4655
	Revisiting Histogram Based Outlier Scores: Strengths and Weaknesses	Ignacio Aguilera-Martos, Julián Luengo and Francisco Herrera	9123
Data Mining and Decision Support Systems			
H11	Model performance prediction: a Meta-Learning approach for concept drift detection	Fernanda Melo, André Carvalho, Ana Lorena and Luís Garcia	253
	Reinforcing Assessment Processes Using Proactive Case-Based Reasoning Mechanisms	Jaime Leite and Orlando Belo	1470
	Meta-Learning for hyperparameters tuning in CNNs for Chest Images.	Jesús García Ramirez, Rodrigo Ramos Díaz, Jimena Olveres and Boris Escalante-Ramírez	2071
	A Fuzzy Logic Ensemble Approach to Concept Drift Detection	Carlos Del Campo, Borja Sanz, Jon Diaz, Enrique Onieva	2467
	Multi-Task Gradient Boosting	Seyedsaman Emami, Carlos Ruiz Pastor and Gonzalo Martinez Muñoz	2630
	Exploratory Study of Data Sampling Methods for Imbalanced Legal Text Classification	Daniela Lopes Freire, Alex Marino Gonçalves de Almeida, Márcio de Souza Dias, Adriano Rivolli, Fabíola Souza Fernandes Pereira, Giliard Almeida de Godoi and Andre C. P. L. F. de Carvalho	4810
	Exploring delay reduction on Edge Computing architectures from a Heuristic approach	Hilal Alawneh, J. David Nuñez-Gonzalez and Manuel Graña	5069

H12	Probability Density Function for Clustering Validation	Pau Figuera, Alfredo Cuzzoocrea and Pablo García Bringas	5251
	Comprehensive analysis of different techniques for data augmentation and proposal of new variants of BOSME & GAN	Asier Garmendia-Orbegozo, J. David Nuñez-Gonzalez, Miguel Angel Anton Gonzalez and Manuel Graña	5598
	Multidimensional Models Supported by Document-Oriented Databases	Rosa Matias and Maria Beatriz Piedade	8568
	Financial Distress Prediction in an Imbalanced Data Stream Environment	Rubens Marques Chaves, André Luis Debiase Rossi and Luís Paulo Faina Garcia	8582
	Improving the Quality of Quantum Services Generation Process: Controlling Errors and Noise	Jaime Alvarado-Valiente, Javier Romero-Álvarez, Danel Arias, Erik B. Terres, Jose García-Alonso, Enrique Moguel, Pablo García Bringas and Juan M. Murillo	9069
	Comparison of deep reinforcement learning path-following system based on road geometry and an adaptive cruise control for autonomous vehicles	Felipe Barreno Herrera, Matilde Santos and Manuel Romana	675
	Feature Ranking for Feature Sorting and Feature Selection with Optimisation	Paola Santana-Morales, Gretel Alonso, Isabela Ortigosa de Araujo, Jessica Coto-Palacio, Raquel Beltran-Barba, Luís Correia and Antonio J. Tallón-Ballesteros	484

Deep Learning

H5	A New Hybrid CNN-LSTM for Wind Power Forecasting in Ethiopia	Ejigu Tefera, María Martínez Ballesteros, Alicia Troncoso and Francisco Martínez-Álvarez	1265
	Companion Classification Losses for Regression Problems	Aitor Sánchez-Ferrera and Jose R. Dorronsoro	4132
	Analysis of transformer model applications	María Isabel Cabrera Bermejo, María José Del Jesus, Antonio Jesús Rivera, David Elizondo, F. Charte and María Dolores Pérez Godoy	5900
	Real-time Workflow Scheduling in Cloud with Recursive Neural Network and List Scheduling	Vahab Samandi, Peter Tino and Rami Bahsoon	5933
Robust Losses in Deep Regression	Adrián Rubio and Jose Dorronsoro	6003	
Structure Learning in Deep Multi-Task Models	Carlos Ruiz, Carlos Alaíz and José Dorronsoro	6338	
Validating by Deep Learning an Efficient Method for Genomic Sequence Analysis: Genomic Spectrograms	Ana Guerrero-Tamayo, Borja Sanz Urquijo, Concepción Casado, María-Dolores Moragues Tosantos, Isabel Olivares and Iker Pastor-López	7366	

H6	Sentiment Analysis for Vietnamese – Based Hybrid Deep Learning Models	Cach N. Dang, María N. Moreno-García, Fernando De la Prieta, Kien V. Nguyen and Vuong M. Ngo	7368
	Optimizing LIME explanations using REVEL Metrics	Ivan Sevillano-García, Julian Luengo and Francisco Herrera	7953
	Assessing the Impact of Noise on Quantum Neural Networks: An Experimental Analysis	Erik Bernardo Terres Escudero, Danel Arias Alamo, Oier Mentxaka Gómez and Pablo García Bringas	8614
	Varroa mite detection using deep learning techniques	Jose Divasón, Francisco Javier Martínez de Pisón Ascacibar, Ana Romero, Pilar Santolaria and Jesús L. Yániz	9433

Evolutionary Computation and Optimization

H7	Enhancing Evolutionary Optimization Performance under Byzantine Fault Conditions	Carlos Cotta	5564
	A hybrid based genetic algorithm for solving the clustered generalized traveling salesman problem	Ovidiu Cosma, Petrica Pop and Laura Cosma	227
	Efficient Simulation of Pollutant Dispersion using Machine Learning	Guido F. M. G. Carvalho, Douglas Corrêa, David A. Pelta, Diego C. Knupp and Antônio J. Silva Neto	740
H8	Hybrid Intelligent Parsimony Search in Small High-dimensional Datasets	Jose Divasón, Alpha Pemia-Espinoza, Ana Romero and Francisco Javier Martinez-de-Pison	1009
	An integer linear programming model for team formation in the classroom with constraints	Gonzalo Candel, Victor Sanchez-Anguix, Juan M. Alberola, Vicente Julian and Vicent Botti	1954
	Improved Evolutionary Approach for Tuning Topic Models with Additive Regularization	Maria Khodorchenko, Nikolay Butakov and Denis Nasonov	3156
	Time of Arrival error characterization for precise indoor localization of Autonomous Ground Vehicles	Rubén Álvarez, Rubén Ferrero Guillén, Paula Verde, Alberto Maartinez Gutiérrez, Javier Díez-González and Hilde Perez	4767
	Feature Selection based on a Decision Tree Genetic Algorithm	Mihai Suciú and Rodica Ioana Lung	5697
	Exact and Heuristic Lexicographic Methods for the Fuzzy Traveling Salesman Problem	Boris Pérez-Cañedo, Pavel Novoa-Hernández, David A. Pelta and José Luis Verdegay	6666
	A Novel Genetic Algorithm with Specialized Genetic Operators for Clustering	Hermes Robles-Berumen, Amelia Zafra and Sebastián Ventura	8984
The Analysis of Hybrid Brain Storm Optimisation Approaches in Feature Selection	Dragan Simić, Zorana Banković, José R. Villar, José Luis Calvo-Rolle, Svetislav D. Simić and Svetlana Simić	6459	

HAIS Applications

H9	Supporting Emotion Recognition in Human-Robot Interactions: An Experimental Italian Textual Dataset	Antonino Asta, Alfredo Cuzzocrea, Alessia Fantini, Giovanni Pilato and Pablo García Bringas	829
	Hybrid Intelligent Control for Maximum Power Point Tracking of a Floating Wind Turbine	Eduardo Muñoz-Palomeque, J. Enrique Sierra-García and Matilde Santos	2119
	Statistical Dialog Tracking and Management for Task-oriented Conversational Systems	David Griol and Zoraida Callejas	2485
	A Causally Explainable Deep Learning Model with Modular Bayesian Network for Predicting Electric Energy Demand	Seok-Jun Bu and Sung-Bae Cho	3228
	Using Large Language Models for Interpreting Autonomous Robots Behaviors	Miguel Á. González Santamarta, Laura Fernández Becerra, David Sobrín Hidalgo, Ángel Manuel Guerrero-Higueras, Irene González-Fernández and Francisco J Rodríguez Lera	4028
	Comparative analysis of intelligent techniques for categorization of the operational status of LiFePo4 batteries	Antonio Diaz-Longueira, Álvaro Michelena Grandío, Miriam Timiraos Díaz, Francisco Zayas-Gato, Héctor Quintián, Carmen Benavides Cuellar, Héctor Alaiz-Moretón, Jose Luis Calvo-Rolle and María Teresa García-Ordás	4306
H10	To Enhance Full-Text Biomedical Document Classification through Semantic Enrichment	Carlos Gonçalves, Adrian Seara Vieira, Celia Talma Gonçalves, Lourdes Borrajo, Rui Camacho and Eva Lorenzo Iglesias	4840
	Predicting innovative cities using spatio-temporal activity patterns	Ricardo Muñoz, Sebastian Rios and Manuel Graña	4884
	Daily accumulative photovoltaic energy prediction using hybrid intelligent model	Antonio Díaz-Longueira, Míriam Timiraos, Juan Albino Méndez Pérez, José Luis Casteleiro-Roca and Esteban Jove	5696
	Comparison of geospatial trajectory clustering and feature trajectory clustering for public transportation trip data	Hector Cogollos, Bruno Baruque Zanon, Santiago Porras Alfonso and Petr Dolezel	9793

Image and Speech Signal Processing

H4	Adapting YOLOv8 as a vision-based animal detection system to facilitate herding	Virginia Riego Del Castillo, Juan Felipe García Sierra and Lidia Sánchez-González	286
	Image classification understanding with Model Inspector tool	Flávio Santos, Maynara Donato de Souza, Pedro Oliveira, Leonardo Nogueira Matos, Paulo Novais and Cleber Zanchettin	2668
	Study on Synthetic Video Generation of Embryo Development	Pedro Celard, Adrián Seara Vieira, José Manuel Sorribes-Fdez, Rubén Romero González, Eva Lorenzo Iglesias and Lourdes Borrajo Diz	4454
	Image reconstruction using Cellular Automata and Neural Networks	Mihai-Adrian Loghin and Anca-Mirela Andreica	9141

Agents and Multiagents

H2	Monte-Carlo Tree Search for Multi-Agent Pathfinding: Preliminary Results	Yelisey Pitanov, Alexey Skrynnik, Anton Andreychuk, Konstantin Yakovlev and Aleksandr I. Panov	318
	The Problem of Concept Learning and Goals of Reasoning in Large Language Models	Anfisa A. Chuganskaya, Alexey K. Kovalev and Aleksandr I. Panov	1218
	Multi-Agent System for Multimodal Machine Learning Object Detection	Eduardo Coelho, Nuno Pimenta, Hugo Peixoto, Dalila Durães, Pedro Melo, Vítor Alves, Lourenço Bandeira, José Machado and Paulo Novais	1778

Biomedical Applicatons

H3	Convolutional Neural Networks for Diabetic Retinopathy Grading from iPhone Fundus Images	Samuel Lozano-Juárez, Nuria Velasco-Pérez, Ian Roberts, Jeronimo Bernal, Nuño Basurto, Daniel Urda and Álvaro Herrero	5971
	Risk factors and survival after premature hospital readmission in frail subjects with delirium	Guillermo Cano, Manuel Graña and Ariadna Besga	1287
	Generalizing an Improved GrowCut Algorithm for Mammography Lesion Detection	Cristiana Moroz-Dubenco, Laura Diosan and Anca Andreica	3437
	Coherence of COVID-19 mortality of Spain versus western European countries	Goizalde Badiola, Manuel Graña and Jose Manuel Lopez-Guede	4326
	A Feature Selection and Association Rule Approach to Identify Genes Associated with Metastasis and Low Survival in Sarcoma	M. Lourdes Linares-Barrera, María Martínez-Ballesteros, José M. García-Heredia and José. C. Riquelme Santos	5639

Analysis of Frequency Bands in Electroencephalograms for Automatic Detection of Photoparoxysmal Responses	Fernando Moncada Martins, Victor Manuel González Suárez, José Ramón Villar Flecha, Beatriz García López and Ana Isabel Gómez Menéndez	5686
Textural and shape features for lesion classification in mammogram analysis	Adél Bajcsi and Camelia Chira	6451
Intent Recognition using Recurrent Neural Networks on Vital Sign Data: A Machine Learning Approach	Samson Mihirette, Qing Tan and Enrique Antonio De La Cal Marin	7785

Session	Title	Authors	Conference ID
SOCO Conference			
Deep Learning, Fuzzy Logic and Evolutionary Computation			
S8	Text Classification for Automatic Distribution of Review Notes in Movie Production	Diego Garces, Matilde Santos and David Fernandez-Llorca	258
	Extended Rank-Based Ant Colony Optimization Algorithm for Traveling Salesman Problem	Sara Pérez Carabaza, Akemi Gálvez and Andrés Iglesias	834
	Multi-Scale Neural Model for Tool-Narayanaswamy-Moynihan Model Parameter Extraction	Marek Pakosta, Petr Dolezel, Roman Svoboda and Bruno Baruque	8718
	First Approach of an Intelligent Automatic System for Aircraft Flap/Slat Positioning	Elías Plaza, Matilde Santos and J. Enrique Sierra-García	3098
	Fuzzy Aggregators in Practice: Meta-Model and Implementation	Paolo Fosci and Giuseppe Psaila	9303
Machine Learning and Data Mining			
S10	Model-based design of the iMO-NMPC strategy: Real-Time implementation	Mikel Larea, Eloy Irigoyen, Fernando Artaza and Vicente Gómez-Garay	1518
	Neuron characterization in complex cultures using a combined YOLO and U-Net segmentation approach	Paula Puerta, Berke Öztürk, Samad Barri, Víctor Gonzalez, José Ramón Villar, Esther Serrano, Antonello Novelli, María Teresa Fernandez, and Ángel del Rio	5072
	Effectiveness of quantum computing in image processing for burr detection	Santiago Merino Bajo, Lidia Sánchez-González, Virginia Riego Del Castillo and Vicente Matellán	5439
	Categorization of CoAP DoS attack based on one-class boundary methods	Miriam Timiraos, Álvaro Michelena Grandío, Antonio Diaz-Longueira, Esteban Jove, José Aveleira Mata, Isaias Garcia, Martín Bayón-Guitérrez, Hector Alaiz Moreton and Jose Luis Calvo-Rolle	7125
	TinyNARM: Simplifying numerical association rule mining for running on microcontrollers	Iztok Fister Jr., Iztok Fister, Akemi Galvez-Tomida and Andres Iglesias Prieto	8849
	Fault Detection in Biological Methanation Process using Machine Learning: A Comparative Study of Different Algorithms	Juan Camilo Acosta Pavas, David Griol, Zoraida Callejas, David Camilo Corrales, Carlos Eduardo Robles-Rodríguez, Jérôme Morchain and César Arturo Aceves-Lara	9259
Soft Computing Applications			
	Comparative study of regression models applied to the prediction of energy generated by a micro wind turbine	Antonio Díaz-Longueira, Miriam Timiraos Díaz, Álvaro Michelena Grandío, Francisco Zayas-Gato, José-Luis Casteleiro-Roca, Esteban Jove, Héctor Quintián, Dragan Simić and Jose Luis Calvo-Rolle	3587
	Comparative study of wastewater treatment plant feature selection for COD prediction	Miriam Timiraos Díaz, Antonio Diaz-Longueira, Álvaro Michelena Grandío, Francisco Zayas-Gato, José-Luis Casteleiro-Roca, Esteban Jove, Héctor Quintián, Oscar Fontenla-Romero and Jose Luis Calvo-Rolle	4270

S3	Machine Learning based system for detecting battery state-of-health	Álvaro Michelena Grandío, Antonio Diaz-Longueira, Miriam Timiraos Díaz, Francisco Zayas-Gato, Héctor Quintián, Natalia Prieto Fernández, Héctor Alaiz-Moretón, Jose Luis Calvo-Rolle, and María Teresa García	5404
	Leveraging Smart Meter Data for Adaptive Consumer Profiling	Ana González, Ana M. Bernardos, Carlos J. Gallego and José Ramón Casar	6749
	Managing Pandemics through agent-based simulation: a Case Study based on COVID-19	César Alberte, David Carramiñana, Ana M. Bernardos and Juan A. Besada	8181
	Hyperspectral technology for oil spills detection by using artificial neural network classifier	María Gema Carrasco García, María Inmaculada Rodríguez García, Javier González Enrique, Paloma Rocío Cubillas Fernández, Juan Jesús Ruiz Aguilar and Ignacio José Turias Domínguez	2306
	Missing Values Imputation for Visualizing the Air Quality Evolution during the COVID-19 Pandemic in Madrid	Angel Arroyo, Beatriz Gil-Arroyo, Daniel Urda, Carlos Cambra, and Álvaro Herrero	8565
Special Session 1: Time Series Forecasting in Industrial and Environmental Applications			
S6	Feature Selection Guided by CVOA Metaheuristic for Deep Neural Networks: Application to Multivariate Time Series Forecasting	Manuel Jesús Jiménez Navarro, Camilo Ernesto Restrepo-Estrada, Laura Melgar-García and David Gutiérrez-Avilés	4515
	Neuroevolutionary Transfer Learning for Time Series Forecasting	Aymeric Vellinger, Jose Francisco Torres Maldonado, Federico Divina and Wim Vanhoof	5744
	Machine Learning Approaches for Predicting Tree Growth Trends based on Basal Area Increment	Pablo Casas-Gómez, Francisco Martínez-Álvarez, Alicia Troncoso and Juan Carlos Linares-Calderón	6423
	Forecasting Greenhouse Temperature using Machine Learning Models: Optimizing Crop Production in Andalucía	Belén Vega-Márquez, Juan Pardo-Martínez, María del Mar Villegas-Oliva and José C. Riquelme	6856
	Deep Learning and Metaheuristic for Multivariate Time-Series Forecasting	Francesco Zito, Vincenzo Cutello and Mario Pavone	7103
	An Approach to Enhance Time Series Forecasting by Fast Fourier Transform	F. Javier Galán-Sales, Pablo Reina-Jiménez, Manuel Carranza-García and José María Luna-Romera	7123
	Comparative study of open source database management systems to enable predictive maintenance of Autonomous Guided Vehicles	Gonzalo Burgos de la Hera, Jesús Enrique Sierra García and Bruno Baruque Zanón	8364
	Integrated forecast and optimization for retailer allocation in a two-echelon inventory system	Vittorio Maniezzo and Tingting Zhou	8479
Special Session 2: Technological Foundations and Advanced Applications of Drone Systems			
S2	Level 3 Data Fusion: Course of Action and Scenario Estimation	Alan N. Steinberg	2434
	Image classification using Contrastive Language-Image Pre-training: Application to aerial views of power line infrastructures	Adrián Losada, Ana M. Bernardos and Juan Besada	4157
	A realistic UAS traffic generation tool to evaluate and optimize U-Space airspace capacity.	Daniel Raposo, David Carramiñana, Juan Besada and Ana Bernardos	4731
	UAV airframe classification using acceleration spectrograms	David Sanchez Pedroche, Francisco Fariña Salguero, Daniel Amigo, Jesus García and Jose M. Molina	7176
	Tuning process noise in INS/GNSS fusion for drone navigation based on evolutionary algorithms	Juan Pedro Llerena, Jesús García, Jose Manuel Molina and Daniel Arias	7656

Special Session 3: Soft Computing Methods in Manufacturing and Management Systems				
S1	Digital twins of production systems based on discrete simulation and machine learning algorithms	Damian Krenczyk	1120	
	Edge architecture for the integration of soft models based Industrial AI control into Industry 4.0 Cyber-Physical Systems	Ander Garcia, Telmo Fernandez, Juan Luis Ferrando, Xabier Oregui, and Zelmara Etxegoyen	2543	
	The use of line simplification and vibration suppression algorithms to improve the quality of determining the indoor location in RTLSs	Grzegorz Ćwikła and Tomasz Lorenz	5776	
	Possibilities of decision support in organizing production processes	Małgorzata Olender-Skóra and Aleksander Gwiazda	9970	
	Application of fuzzy logic to the risk assessment of production machines failures	Dagmara Łapczyńska and Anna Burduk	833	
Special Session 4: Efficiency and Explainability in Machine Learning and Soft Computing				
S9	Efficient short-term time series forecasting with regression trees	Pablo Reina-Jiménez, Manuel Carranza-García, Jose María Luna-Romera and José C. Riquelme	5572	
	Generating Synthetic Fetal Cardiotocography Data with Conditional Generative Adversarial Networks	Halal Abdulrahman Ahmed, Juan A. Nepomuceno, Belén Vega-Márquez and Isabel A. Nepomuceno-Chamorro	6511	
	Olive oil fly population pest forecasting using explainable deep learning	Andrés Manuel Chacón Maldonado, Angela del Robledo Troncoso García, Francisco Martínez-Álvarez, Gualberto Asencio-Cortés, and Alicia Troncoso	8314	
	Explaining learned patterns in deep learning by association rules mining	Manuel Jesús Jiménez Navarro, María Martínez Ballesteros, Francisco Martínez-Álvarez and Gualberto Asencio-Cortés	9360	
	Special Session 7: Soft Computing and Hard Computing for a Data Science Process Model			
	A preliminary study of MLSE/ACE-III stages for Primary Progressive Aphasia automatic identification using speech features	Amable J. Valdés Cuervo, Elena Herrera and Enrique De La Cal Marín	6732	
	Comparison of LSTM, GRU and Transformer Neural Network Architecture for prediction of wind turbine variables	Pablo-Andrés Buestán-Andrade, Matilde Santos, Jesús-Enrique Sierra-García and Juan-Pablo Pazmiño-Piedra	7730	
	The impact of data normalization on the accuracy of machine learning algorithms: A comparative analysis	Kelsy Cabello-Solorzano, Isabela Ortigosa de Araujo, Marco Antonio Peña Cubillos, Luís Correia and Antonio J. Tallón-Ballesteros	1813	
	Adaptive optics correction using recurrent neural networks for wavefront prediction	Saul Perez Fernandez, Alejandro Buendía Roca, Carlos González Gutiérrez, Javier Rodríguez Rodríguez, Santiago Iglesias Álvarez, Ronny Anangonó Tutasig, Fernando Sánchez Lasheras and Francisco Javier De Cos Juez	6468	
Special Session 5: Machine Learning and Computer Vision in Industry 4.0				
	A Deep Learning Ensemble for Ultrasonic Weld Quality Control	Ramón Moreno, Jose María San Juan, Miguel Del Rio, Revanth Muthselvam, and Ting Wang	861	
	Indoor Scenes Video Captioning	Javier Rodríguez, David Ortiz-Perez, Jose Garcia-Rodríguez, David Tomas, and Grzegorz J. Nalepa	1417	

S5	A multimodal Dataset to create manufacturing Digital Twins	David Alfaro, Mauricio Zamora, Hanzel Grillo, José García and Jorge Azorín	1789
	A Modified Loss Function Approach for Instance Segmentation Improvement and Application in Fish Markets	Alejandro Galán-Cuenca, Nahuel García-d'Urso, Pau Climent-Pérez, Andrés Fuster-Guilló and Jorge Azorín-López	2097
	Parallel processing applied to object detection with a Jetson TX2 embedded system	Jesus Benito-Picazo, José David Fernández-Rodríguez, Enrique Dominguez, Esteban José Palomo and Ezequiel López-Rubio	2139
	Deep Learning-based emotion detection in Aphasia patients	David Ortiz-Perez, Pablo Ruiz-Ponce, Javier Rodríguez-Juan, David Tomas Diaz, Jose Garcia-Rodríguez, and Grzegorz J. Nalepa	4207
	An Image Mosaicing-Based Method for Bird Identification on Edge Computing Devices	Dmitrij Teterja, Jose Garcia-Rodriguez, Jorge Azorin Lopez, Esther Sebastian-Gonzalez, Rita Elise van der Walt and MJ Booyesen	5512
	HoloDemtect: a mixed reality framework for cognitive stimulation through interaction with objects	David Mulero Perez, Manuel Benavent-Lledo, Jose Garcia-Rodriguez, Jorge Azorin Lopez and Flores Vizcaya Moreno	6431
S4	Accurate Estimation of Parametric Models of the Human Body from 3D Point Clouds	Nahuel E. Garcia-D'Urso, Jorge Azorin-Lopez and Andres Fuster-Guillo	7861
	Lightweight Cosmetic Contact Lens Detection System for Iris Recognition at a Distance	Adrián Romero-Garcés, Camilo Ruiz-Beltrán, Rebeca Marfil and Antonio Bandera	8815
	Vehicle warning system based on road curvature effect using CNN and LSTM neural networks	Felipe Barreno Herrera, Matilde Santos and Manuel Romana	9843
	Defect Detection in Batavia Woven Fabrics by means of Convolutional Neural Networks	Nuria Velasco-Pérez, Samuel Lozano-Juárez, Beatriz Gil-Arroyo, Juan Marcos Sanz, Nuño Basurto, Daniel Urda and Álvaro Herrero	4798
Special Session 6: Genetic and Evolutionary Computation in Real World and Industry			
S7	Enhancing Time Series Anomaly Detection Using Discretization and Word Embeddings	Lucas Pérez, Nahuel Costa and Luciano Sanchez	217
	Multi-objective optimization for Multi-Robot Path Planning on warehouse environments	Enol García González, José Ramón Villar, Camelia Chira, Enrique De La Cal Marín, Luciano Sánchez and Javier Sedano	1324
	On the Prediction of Anomalous Contaminant Diffusion	Douglas Corrêa, Guido Carvalho, David Pelta, Cláudio Toledo and Antônio Silva Neto	5471
	Keeping safe distance from obstacles for autonomous vehicles by genetic algorithms	Eduardo Bayona, Jesus Enrique Sierra and Matilde Santos	5680
	An Approach of Optimisation in Last Mile Delivery	Dragan Simić, José Luis Calvo-Rolle, José R. Villar, Vladimir Ilin, Svetislav D. Simić and Svetlana Simić	9405

Session	Title	Authors	Conf. ID
CISIS Conference			
CISIS Applications			
C1	Accountability & explainability in robotics: a proof of concept for ROS 2- and Nav2-based mobile robots	Laura Fernández-Becerra, Miguel Ángel González-Santamarta, David Sobrín-Hidalgo, Ángel Manuel Guerrero-Higueras, Francisco J. Rodríguez Lera and Vicente Matellán Olivera	3272
	Reducing the security margin against a differential attack in the TinyJambu cryptosystem	Amparo Fuster-Sabater and María Eugenia Pazo-Robles	3605
	Fuzzing Robotic Software using HPC	Francisco Borja Gamelo Del Rio, Francisco J Rodríguez Lera, Camino Fernández and Vicente Matellan Olivera	7714
Intrusion and fault detection			
C3	Intrusion Detection and Prevention in Industrial Internet of Things: A Study	Nicholas Jeffrey, Qing Tan and José Ramón Villar	666
	A novel method for failure detection based on real-time systems identification	Álvaro Michelena Grandío, Antonio Díaz-Longueira, Miriam Timiraos Díaz, Héctor Quintián, Oscar Fontenla-Romero and Jose Luis Calvo-Rolle	3107
	Systematic literature review of methods used for SQL injection detection based on intelligent algorithms	Juan José Navarro-Cáceres, Ignacio Samuel Crespo-Martínez, Adrián Campazas-Vega and Ángel Manuel Guerrero-Higueras	5160
	Impact of Keep-Alive Parameter on SQL Injection Attack Detection in Network Flow Data	Ignacio Samuel Crespo Martínez, Adrián Campazas Vega, Angel Manuel Guerrero Higueras, Claudia Álvarez Aparicio and Camino Fernández Llamas	5511
	SWAROG Project Approach to Fake News Detection Problem	Rafal Kozik, Joanna Komomiczak, Paweł Ksieniewicz, Aleksandra Pawlicka, Marek Pawlicki and Michał Choraś	8875
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C4	Analysis of extractive text summarization methods as a binary classification problem	Joanna Komomiczak, Szymon Wojciechowski, Jakub Klikowski, Rafał Kozik and Michał Choraś	3804
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Explainable artificial intelligence for education: A real case of a university
subject switched to Python

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