

5th - MONDAY		6th - TUESDAY				7th - WEDNESDAY						
		AUDITORIO	Sala Menor	Aula 1.1	Aula 1.2	AUDITORIO	Sala Menor	Aula 1.1	Aula 1.2			
		11:00	REGISTRATION (Open all day) Hospedería Fonseca				10:00	REGISTRATION (Open all day) Hospedería Fonseca				
		11:00 - 12:00	OPENING STARTUP OLÉ (CONGRESS PARTICIPANTS INVITED) PALACIO DE CONGRESOS				10:00 - 12:00	H1	H8	S11	S7	
		12:00 - 13:00	VISIT TO FAIR (CONGRESS PARTICIPANTS INVITED) PALACIO DE CONGRESOS				12:00 - 12:15	COFFEE BREAK (CLAUSTRO COLEGIO FONSECA)				
		13:30 - 14:00	EXHIBITION (CONGRESS PARTICIPANTS INVITED) CALLE FONSECA				12:15 - 13:00	PLENARY TALK - Guy De Tré (AUDITORIO)				
		14:00 - 16:00	NETWORKING COCKTAIL - LUNCH (CLAUSTRO COLEGIO FONSECA)				13:00 - 14:00	C3	H5	I1	S2	
		16:00 - 17:00	H7	H2	S10	S4	14:00 - 15:30	NETWORKING COCKTAIL - LUNCH (CLAUSTRO COLEGIO FONSECA)				
		17:00 - 19:00	REGISTRATION Hospedería Fonseca		17:00 - 17:15	OPENING HAIS-SOCO-CISIS-ICEUTE (AUDITORIO)				15:30 - 17:15	C2	S5
17:15 - 18:00	PLENARY TALK - Ajith Abraham (AUDITORIO)				17:15 - 18:00	PLENARY TALK - Félix Barrio (AUDITORIO)						
18:00 - 18:15	COFFEE BREAK (CLAUSTRO COLEGIO FONSECA)				18:00 - 18:15	COFFEE BREAK (HOSPEDERÍA FONSECA COFFEE SHOP)						
18:15 - 20:15	C1	H3			S1	S3	18:15 - 20:15	H4	S6	S9	H6	
20:30	STARTUP OLÉ PARTY (CONGRESS PARTICIPANTS INVITED) (CLAUSTRO COLEGIO FONSECA)		20:30	COCKTAIL (CLAUSTRO COLEGIO FONSECA)				21:30	GALA DINNER Lilicook Gastrobar C. Espoz y Mina, 22, 37002 Salamanca			

H AIS CONFERENCE

Title	Authors	ID Conference	Session
Bioinformatics			
A Comparison of Machine Learning Techniques for the Detection of Type-4 PhotoParoxysmal Responses in Electroencephalographic Signals	Fernando Moncada Martins, Victor Manuel González Suárez, Victor Manuel Álvarez García, Beatriz García López and José Ramón Villar Flecha	5	H1
Smartwatch sleep-tracking services precision evaluation using supervised domain adaptation	Enrique De La Cal Marín, Mirko Fáñez Kertelj, Dolores Apolo Arenas, Andrés Garcia-Gómez and Víctor Gonzalez	11	
Tracking and Classification of Features in the Bioinspired Layered Networks	Naohiro Ishii, Kazunori Iwata, Naoto Mukai, Kazuya Odagiri and Tokuro Matsuo	14	
Frailty related survival risks at short and middle term of older adults admitted to hospital	Guillermo Cano-Escalera, Manuel Graña and Ariadna Besga	15	
On the analysis of a real dataset of COVID-19 patients in Alava	Goizalde Badiola, José Manuel López Guede, Julian Estevez and Manuel Graña	23	
Indoor access control system through symptomatic examination using IoT technology, fog computing and cloud computing	Raúl López-Blanco, Ricardo S. Alonso, Javier Prieto, Sara Rodríguez-González and Juan M. Corchado	38	
Data Mining and Decision Support Systems			
Measuring the quality information of sources of cybersecurity by multi-criteria decision making techniques	Noemí DeCastro-García and Enrique Pinto	1	H2

A case of study with the Clustering R library to measure the quality of cluster algorithms	Luis Alfonso Pérez Martos, Ángel Miguel García-Vico, Pedro González García and Cristóbal José Carmona del Jesus	4	
Comparing clustering techniques on Brazilian legal document datasets	João Pedro da Silva Lima and Jose Alfredo Ferreira Costa	16	
Improving short query representation in LDA based information retrieval systems	Pedro Celard, Eva Lorenzo-Iglesias, José Manuel Sorribes-Fdez, Rubén Romero, Adrián Seara-Vieira and Lourdes Borrajo	17	
A new Game Theoretic based Random Forest for Binary Classification	Mihai Suciú and Rodica Ioana Lung	19	H3
Concept Drift Detection to Improve Time Series Forecasting of Wind Energy Generation	Tomás Cabello-López, Manuel Cañizares-Juan, Manuel Carranza-García, Jorge García-Gutiérrez and José C. Riquelme	21	
A decision support tool for the static allocation of emergency vehicles to stations	Miguel Angel Vecina, Joan C. Moreno, Yulia Karpova, Juan M. Alberola, Victor Sanchez-Anguix, Maria Fulgencia Villa and Eva Vallada	22	
Adapting k-means algorithm for pair-wise constrained clustering of imbalanced data streams	Szymon Wojciechowski, Germán González-Almagro, Salvador García and Michał Woźniak	25	
Small Wind Turbine Power Forecasting Using Long Short-Term Memory Networks for Energy Management Systems	Esteban Jove, Santiago Porras Alfonso, Bruno Baruque and Jose Luis Calvo-Rolle	27	
CORE-BCD-mAI: A Composite Framework for Representing, Querying, and Analyzing Big Clinical Data by means of Multidimensional AI Tools	Alfredo Cuzzocrea and Pablo García Bringas	42	
Generalized Fisher Kernel with Bregman Divergence	Pau Figuera, Alfredo Cuzzocrea and Pablo García Bringas	44	
A HAIS approach to predict the energy produced by a solar panel	Angel Arroyo, Héctor Quintian, José Luis Calvo-Rolle, Nuño Basurto and Álvaro Herrero	45	
Deep Learning			
Companion Losses for Ordinal Regression	David Díaz-Vico, Ángela Fernández-Pascual and Jose Dorronsoro	8	H4
Convex Multi-Task Learning with Neural Networks	Carlos Ruiz, Carlos Alaíz and José Dorronsoro	12	
Smash: A Compression Benchmark with AI Datasets from Remote GPU Virtualization Systems	Cristian Peñaranda, Carlos Reaño and Federico Silla	13	

Time series forecasting using artificial neural networks A model for the IBEX 35 index	Daniel Alejandro González Cortés, Enrique Onieva Caracuel, Iker Pastor Lopez and Jian Wu	29	
A fine-grained study of interpretability of Convolutional Neural Networks for text classification	Maite Giménez, Ares Fabregat-Hernández, Raül Fabra-Boluda, Javier Palanca and Vicent Botti	36	
Olive phenology forecasting using information fusion-based imbalanced preprocessing and automated deep learning	Andrés Manuel Chacón-Maldonado, M.Á. Molina, Alicia Troncoso, Francisco Martínez-Álvarez and Gualberto Asencio-Cortés	37	
Architecture for fault detection in sandwich panel production using visual analytics	Sebastian Lopez Florez, Marcos Severt Silva, Alfonso González-Briones and Pablo Chamoso	41	
Deep Reinforcement Learning-based Resource Allocation for mm-wave Dense 5G Networks	Jerzy Martyna	43	
Evolutionary Computation			
Evolutionary Triplet Network of Learning Disentangled Malware Space for Malware Classification	Kyoung Won Park, Seok Jun Bu and Sung Bae Cho	20	H5
A two-level hybrid based genetic algorithm to solve the clustered shortest-path tree problem using the Prüfer code	Adrian Petrovan, Petrica Pop, Cosmin Sabo and Ioana Zelina	24	
New Hybrid Methodology Based on Particle Swarm Optimization with Genetic Algorithms to Improve the Search of Parsimonious Models in High-Dimensional Databases	Jose Divasón, Alpha Pernia and Francisco Javier Martinez de Pison Ascacibar	26	
Evolving dynamic route generators for open-ended ARPs	Alejandro Gonzalez Casal, Pedro Trueba Martinez and Abraham Prieto García	31	
HAIS Applications			
SHAP Algorithm for Healthcare Data Classification	Samson Mihirette and Qing Tan	2	H6
Assessment of creditworthiness models privacy-preserving training with synthetic data	Ricardo Muñoz-Cancino, Cristian Bravo, Sebastian Rios and Manuel Graña	9	
Combination of neural networks and reinforcement learning for wind turbine pitch control	Jesus Enrique Sierra-Garcia and Matilde Santos	28	
Survey for Big Data Plataforms and Resources Management for Smart Cities	Carlos Alves, António Chaves, Carla Rodrigues, Eduarda Ribeiro, António Silva, Dalila Durães, J.Machado, Paulo Novais	32	
A proposal for developing and deploying statistical dialog management in commercial conversational platforms	Pablo Cañas, David Griol and Zoraida Callejas	33	

Image and Speech Signal Processing

Roadway detection using convolutional neural network through camera and LiDAR data	Martín Bayón-Gutiérrez, José Alberto Benítez-Andrades, Sergio Rubio-Martín, Jose Alveleira-Mata, Héctor Alaiz-Moretón and María Teresa García-Ordás	10	H7
A Conversational Agent for medical disclosure of Sexually Transmitted Infections	Joan C. Moreno, Victor Sánchez-Anguix, Juan M. Alberola, Vicente Julián and Vicent Botti	18	
A Neuro-Symbolic AI System for Visual Question Answering in Pedestrian Video Sequences	Jaeil Park, Seok-Jun Bu and Sung-Bae Cho	30	
Aspects on Image Edge Detection based on Sensitive Swarm Intelligence	Ticala Cristina, Camelia-M. Pinteá, Gloria Cerasela Crisan, Oliviu Matei, Mara Hajdu-Macelarú and Petrica Pop	35	

Optimization Techniques

Black Widow Optimization for the Node Location Problem in Localization Wireless Sensor Networks	Paula Verde, Javier Díez-González, Alberto Martínez-Gutiérrez, Rubén Ferrero Guillén, Rubén Álvarez and Hilde Perez	3	H8
Hybrid intelligent model for classification of the boost converter switching operation	Luis Alfonso Fernandez-Serantes, Jose-Luis Casteleiro-Roca, Paulo Novais, Dragan Simic and Jose-Luis Calvo-Rolle	6	
A comparison of Meta-heuristic based optimization methods using standard benchmarks	Enol García González, José Ramón Villar, Camelia Chira and Javier Sedano	7	
An Analysis on Hybrid Brain Storm Optimisation Algorithms	Dragan Simić, Zorana Banković, José R. Villar, José Luis Calvo-Rolle, Svetislav D. Simić and Svetlana Simić	40	

SOCO CONFERENCE

Title	Authors	ID Conference	Session
Decision Support and Deep Learning			
Anomaly Detection of Security Threats to Cyber-Physical Systems: A Study	Nicholas Jeffrey, Qing Tan and Jose R. Villar	3	S1
Predictive Maintenance for Maintenance-effective Manufacturing using Machine Learning Approaches	Bruno Mota, Pedro Faria and Carlos Ramos	13	
Estimation of Lamb Weight Using Transfer Learning and Regression	Virginia Riego Del Castillo, Lidia Sánchez-González, Laura Fernández-Robles, Manuel Castejón-Limas and Rubén Rebollar	36	
UAV Simulation for Object Detection and 3D Reconstruction Fusing 2D LiDAR and Camera	Daniel Amigo, Jesus Garcia, Jose M. Molina and Jorge Lizcano	45	
An SO2 pollution concentrations prediction approach using autoencoders	María Inmaculada Rodríguez García, Javier González Enrique, Juan Jesús Ruiz Aguilar and Ignacio José Turias Domínguez	46	
CPU computation influence on energy consumption forecasting activities of a building	Daniel Ramos, Pedro Faria, Luis Gomes and Zita Vale	47	
Python-based Ecosystem for Agent Communities simulation	Bruno Ribeiro, Helder Pereira, Luis Gomes and Zita Vale	48	
Deep Learning approach for the prediction of the concentration of chlorophyll a in seawater. A case study in El Mar Menor (Spain)	Javier González Enrique, Juan Jesus Ruiz Aguilar, Eduardo Madrid Navarro, Rosa Martínez Álvarez-Castellanos, Ivan Felis Enguix, José M. Jerez and Ignacio J. Turias	49	
Evolutionary Computing			

A Hybrid Discrete Symbiotic Organisms Search Algorithm and List-Based Simulated Annealing Algorithm for Traveling Salesman Problem	Vladimir Ilin, Dragan Simic, Marko Velickovic and Nemanja Garunovic	22	S2
Estimation of Distribution Algorithms applied to the Next Release Problem	Víctor Pérez-Piqueras, Pablo Bermejo and Jose Gamez	24	
An Extremal Optimization Approach to the Pairwise Connectivity Critical Node Detection Problem	Noémi Gaskó, Tamás Képes, Mihai Suciu and Rodica Ioana Lung	54	
Neural Networks and Data Mining			
Dimensional reduction applied to a intelligent model for boost converter switching operation	Luis Alfonso Fernandez-Serantes, Jose-Luis Casteleiro-Roca, Paulo Novais, Dragan Simic and Jose-Luis Calvo-Rolle	10	S3
Intuitionistic Fuzzy Sets in J-CO-QL+?	Paolo Fosci and Giuseppe Psaila	23	
Assessing Efficient Market Hypothesis for Cryptocurrencies with High-Frequency Data using Time Series Classification	Rafael Ayllón-Gavilán, David Guijo-Rubio, Pedro Antonio Gutiérrez and César Hervás-Martínez	29	
Blockchain for Supply Chain Traceability with Data Validation	Cristian Valencia-Payan, David Griol and Juan Carlos Corrales	34	
Compression of clustered ship trajectories for context learning and anomaly detection	David Sánchez Pedroche, Jesus Garcia Herrero and Jose Manuel Molina Lopez	37	
DR participants' actual response prediction using Artificial Neural Networks	Cátia Silva, Pedro Faria and Zita Vale	44	
Non-linear Neural Models to Predict HRC Steel Price in Spain	Roberto Alcalde Delgado, Daniel Urda, Carlos Alonso de Armiño, Santiago García, Manuel Manzanedo and Álvaro Herrero	70	
Soft Computing ApplicationsSoft Computing Applications			
First steps predicting execution of civil works from georeferenced infrastructure data	Baterdene Batmunkh, Jose Antonio Chica Paez, Sergio Gil Lopez, Maider Arana Bollar, Oihana Jauregui Zorzano, Andoni Aranguren Ubierna, Manuel Graña and J. David Nuñez-Gonzalez	50	S4
Virtual sensor to estimate air pollution heavy metals using bioindicators	María Inmaculada Rodríguez García, Nawel Kouadria, Arantxa M. Ortega León, Javier González-Enrique and Ignacio José Turias Domínguez	61	
Regression Techniques to Predict the Growth of Potato Tubers	Ángel Arroyo, Carlos Cambra, Nuño Basurto, Carlos Rad, Milagros Navarro and Álvaro Herrero	69	

Reliability-Sensitive Optimization for Provision of Ancillary Services by Tempo-Spatial Correlated Distributed Energy Resources	Payam Teimourzadeh Baboli, Amin Raeiszadeh, Michael Brand and Sebastian Lehnhof	72	
Special Session on Machine Learning and Computer Vision in Industry 4.0			
Predictive Maintenance of ATM machines by modelling Remaining Useful Life with Machine Learning techniques	Riccardo Rosati, Luca Romeo, Víctor Manuel Vargas, Pedro Antonio Gutiérrez, César Hervás-Martínez, Lorenzo Bianchini, Alessandra Capriotti, Rosario Capparuccia and Emanuele Frontoni	16	S5
The impact of content deletion on tabular data similarity using contextual word embeddings	José Pilaluisa and David Tomás	17	
Deep Learning-based Dementia Prediction using Multimodal Data	David Ortiz Perez, Pablo Ruiz Ponce, David Tomas Diaz and Jose Garcia Rodriguez	18	
Lightweight models in face attribute recognition: performance under oclussions	Jaime Aznar Espinosa, Angela Sanchez Perez, Jose Garcia Rodriguez and Javier Barrachina	19	
Small Vessel Detection in Changing Seaborne Environments using Anchor-Free Detectors on Aerial Images	Pablo Ruiz Ponce, David Ortiz Perez and Jose Garcia Rodriguez	20	
Improving malware detection with a novel dataset based on API calls	Manuel Torres, Rafael Álvarez and Miguel Cazorla	26	
Identifying places using multimodal social network data	Luis Lucas Ibañez, David Tomas Diaz and Jose Garcia Rodriguez	30	
Monitoring human performance through deep learning and computer vision in Industry 4.0	David Alfaro-Viquez, Mauricio Zamora, Manuel Benavent-Lledo, Jose Garcia-Rodriguez and Jorge Azorín-López	31	S6
Automatic fish size estimation from uncalibrated fish market images using computer vision and deep learning	Pau Climent-Pérez, Alejandro Galán-Cuenca, Nahuel Emiliano García-d'Urso, Marcelo Saval-Calvo, Jorge Azorin-Lopez and Andrés Fuster-Guillo	32	
Vehicle overtaking hazard detection over onboard cameras using deep convolutional networks	Jorge García-González, Iván García-Aguilar, Daniel Medina, Rafael M. Luque-Baena, Ezequiel López-Rubio and Enrique Domínguez	35	
Image Classification Applied To The Problem Of Conformity Check In Industry	Nour Islam Mokhtari, Igor Jovancevic, Hamdi Ben Abdallah and Jean-José Orteu	43	
A virtual sensor approach to estimate the stainless steel final chemical characterisation	Damian Nimo, Javier Gonzalez, David Perez, Juan Almagro, Daniel Urda and Ignacio Turias	51	

Convolutional Neural Networks for Structured Industrial Data	Luis Moles, Fernando Boto, Goretti Echegaray and Iván G. Torre	62	
Classification of Polymers Based on the Degree of Their Transparency in SWIR spectrum	Dominik Stursa, Dušan Kopecký, Jiri Rolecek, Petr Dolezel and Bruno Baruque	65	
Deep Learning Based Baynat Foam Classification for Headliners Manufacturing	Revanth Shankar Muthuselvam, Ramon Moreno, Mario Guemes, Miguel Del Río Cristobal, Ignacio de Rodrigo Tobías and Alvaro Jesús López López	71	
Special Session on Time Series Forecasting in Industrial and Environmental Applications			
A GAN approach for Anomaly Detection in Spacecraft Telemetries	Carlo Ciancarelli, Giorgio De Magistris, Salvatore Cognetta, Daniele Appetito, Christian Napoli and Daniele Nardi	2	S7
Management and forecasting of the demand for caskets in the funeral sector. Study before and during the Covid-19 pandemic	Cristina Martínez González, Athénaïs Sauvée, Santiago Porras Alfonso and Julio César Puche Regaliza	15	
Explainable machine learning models to forecast electric vehicle load demand	Juan Alberto Gallardo-Gómez, Federico Divina, Alicia Troncoso and Francisco Martínez-Álvarez	59	
A cluster-based deep learning model for energy consumption forecasting in Ethiopia	Ejigu Tefera, Kula Kekeba, Alicia Troncoso and Francisco Martínez-Álvarez	66	
Special Session on Optimization, Modeling and Control by Soft Computing Techniques			
Abnormal driving behavior identification based on naturalistic driving data using LSTM recurrent neural networks	Felipe Barreno Herrera, Matilde Santos and Manuel Romana	28	S8
Identification of critical subgraphs in drone airways graphs by Graph Convolutional Networks	Igone Morais Quilez and Manuel Graña	33	
Robust Velocity Control of an Automated Guided Vehicle using Artificial Neural Networks	Javier Argente Mena, Jesus Enrique Sierra Garcia and Matilde Santos Peñas	40	
Studying the use of ANN to estimate state-space variables for MIMO systems in a NMPC strategy	Aimar Alonso, Asier Zabaljauregi, Mikel Larrea, Eloy Irigoyen and Javier Sanchis	55	
Control of MIMO systems with iMO-NMPC strategy	Asier Zabaljauregi, Aimar Alonso, Mikel Larrea, Eloy Irigoyen and Javier Sanchís	56	
Optimization of trajectory generation for automatic guided vehicles by genetic algorithms	Eduardo Bayona, Jesús Enrique Sierra-García and Matilde Santos	64	
Special Session on Soft Computing Applied to Renewable Energy Systems			

Complementing direct speed control with neural networks for wind turbine MPPT	Eduardo Muñoz Palomeque, J. Enrique Sierra-Garcia and Matilde Santos	8	S9
A Control Approach on Hybrid Floating offshore Wind Turbines for Platform and Generated Power Oscillations Reduction at Below-rated Wind Speed	Payam Aboutalebi, Fares M'Zoughi, Irfan Ahmad, Aitor J. Garrido and Izaskun Garrido	11	
Control Tuning by Genetic Algorithm of a Low Scale Model Wind Turbine	Giordy Alexander Andrade Aimara, Segundo Esteban San Román and Matilde Santos	39	
Pitch-based wind turbine tower vibration damping optimized by Simulated Annealing	Mikel Serrano, Jesús Enrique Sierra-García, Matilde Santos and Giordy Alexander Andrade	41	
Neural networks techniques for fault detection and offset prediction on wind turbines sensors	Fabio Rodríguez, William D. Chicaiza, Adolfo Sánchez and Juan Manuel Escaño	67	
Special Session on On pre-processing Big Data in Machine Learning			
Errors of identifiers in anonymous databases: impact on data quality	Paulo Pombinho, Luís Cavique and Luís Correia	7	S10
Feature-Aware Drop Layer (FADL): A Nonparametric Neural Network Layer for Feature Selection	Manuel Jesús Jiménez Navarro, María Martínez Ballesteros, Isabel Sofia Brito, Francisco Martínez-Álvarez and Gualberto Asencio-Cortés	27	
Classification methods for MOBA Games	Marco A. Peña-Cubillos, Alejandro Villar-Ruiz, Antonio J. Tallón-Ballesteros, Yaoyang Wu and Simon Fong	58	
Feature ranking for feature sorting and feature selection, and feature sorting: FR4(FSoFS)^FSO	Antonio J. Tallón-Ballesteros, Alba Márquez-Rodríguez, Yaoyang Wu, Paola Santana Morales and Simon Fong	63	
Special Session on Tackling Real World Problems with Artificial Intelligence			
Introducing Intelligence to the Semantic Analysis of Canadian Maritime Case Law: Case Based Reasoning Approach	Bolan Abimbola, Qing Tan and José Ramón Villar	4	S11
Case-Based Reasoning for the prediction of flash flood	Enrique Fernández, José Ramón Villar, Alberto Navarro and Javier Sedano	5	
Weakly supervised learning of the motion resistance of a locomotive powered by liquefied natural gas	Luciano Sanchez, Pablo Luque, Daniel Alvarez-Mantaras, Jose Otero and Nahuel Costa	6	

Node Location Optimization for Localizing UAVs in Urban Scenarios	Paula Verde, Rubén Ferrero Guillén, José Manuel Alija, Alberto Martínez-Gutiérrez, Javier Díez-González and Hilde Perez	12	
Applying Deep Q-learning for multi-agent cooperative-competitive environments	Anikó Kopacz, Lehel Csató and Camelia Chira	25	
A comparison of two Speech Emotion Recognition algorithms: Pepper humanoid versus Bag of Models	Enrique De La Cal Marín, Javier Sedano, Alberto Gallucci and Paloma Valverde	42	
Fine-Tuning of Optimisation Parameters in a Firefly Algorithm in Inventory Management	Dragan Simić, José Luis Calvo-Rolle, José R. Villar, Vladimir Ilin, Svetislav D. Simić and Svetlana Simić	57	
Security Centric Scalable Architecture for Distributed Learning and Knowledge Preservation	Rudolf Erdei, Daniela Delinschi and Oliviu Matei	68	

CISIS CONFERENCE

Title	Authors	ID Conference	Session
CISIS Applications			
Analysis of long-range forecast strategies for IoT on urban water consumption prediction task	Krzysztof Pałczyński, Tomasz Andrysiak, Marcin Głowacki, Michał Kierul and Tomasz Kierul	5	C1
Genetic Algorithm based Aggregation for Federated Learning in Industrial Cyber Physical Systems	Souhila Badra Guendouzi, Samir Ouchani and Mimoun Malki	12	
Hand SOS gesture detection by computer vision	Roberto Viejo-López, Virginia Riego Del Castillo and Lidia Sánchez-González	13	
Prediction of Smart Energy Meter Network Traffic Features for Anomaly Detection	Tomasz Andrysiak and Łukasz Saganowski	18	
An anomaly detection approach for realtime identification systems based on centroids	Álvaro Michelena Grandío, Francisco Zayas-Gato, Esteban Jove, José Luis Casteleiro-Roca, Héctor Quintián, Oscar Fontenla-Romero and Jose Luis Calvo-Rolle	20	
Powerful Biogeography-Based Optimization algorithm with local search mechanism for Job Shop Scheduling Problem with additional constraints	Madiha Harrabi, Olfa Belkahla Driss and Khaled Ghedira	21	
Dimensionality-Reduction Methods for the Analysis of Web Traffic	Nuño Basurto, Álvaro Michelena, Daniel Urda, Hector Quintián, José Luis Calvo-Rolle, and Álvaro Herrero	25	
Special Session on Cybersecurity in Future Connected Societies			

About the Fujisaki-Okamoto Transformation in the Code-based Algorithms of the NIST Post-Quantum Call	Miguel Ángel González de la Torre and Luis Hernández Encinas	3	C2
Analysis of Secret Key Agreement Protocol for Massive MIMO Systems	Seiya Otsuka, Hiroki Iimori, Kengo Ando, Giuseppe Abreu, Koji Ishibashi and Naoki Ishikawa	9	
Efficient implementation of stream cipher SNOW3G for resource-constrained devices	Guillermo Cotrina, Alberto Peinado and Andrés Ortiz	14	
State of the art of cybersecurity in cooperative, connected and automated mobility	Óscar Castillo Campo, Víctor Gayoso Martínez, Luis Hernandez Encinas, Agustin Martin Muñoz and Roberto Álvarez Fernández	16	
Cryptographic protocols in advanced metering infrastructures in smart grids	Luis Hernández-Álvarez, Juan J. Bullón Pérez and Araceli Queiruga-Dios	19	
Special Session on Cybersecurity and Trusted Supply Chains of ICT			
Orchestrator Architecture and Communication Methodology for Flexible Event Driven Message Based Communication	Rudolf Erdei, Daniela Delinschi, Emil Pasca and Oliviu Matei	2	C3
A comparative study of Machine Learning algorithms for the detection of vulnerable Python libraries	Laura Pérez-Vilarelle, Eva Sotos Martínez and Javier Yépez Martínez	8	
Evaluation of the reliability index of IP addresses in reputation lists	Alberto Miranda-García, Ignacio Samuel Crespo-Martínez, Ángel M. Guerrero-Higuera and Vicente Matellán-Olivera	10	
Forecasting the Number of Bugs and Vulnerabilities in Software Components using Neural Network Models	Ovidiu Cosma, Petrica Pop, Cosmin Sabo and Laura Cosma	17	
Special Session on Intelligent Solutions for Cybersecurity Systems			
Reinforcement Learning model free with GLIE Monte-Carlo on policy update for network topology discovery	Roberto Casado-Vara, Marcos Severt Silva, Angel Martin Del Rey, Héctor Quintián and Jose Luis Calvo-Rolle	7	C4
Obfuscating LLVM Intermediate Representation Source Code with NSGA-II	Juan Carlos de la Torre, José Miguel Aragón-Jurado, Javier Jareño, Sébastien Varrette and Bernabé Dorronsoro	11	
A Deep Learning-based approach for Mimicking Network Topologies: the Neris Botnet as a Case of Study	Francisco Álvarez Terribas, Roberto Magán-Carrión, Gabriel Macia-Fernandez and Antonio Mora	22	
Evaluating Classifiers' Performance to Detect Attacks in Website Traffic	Daniel Urda, Nuño Basurto, Meelis Kull and Álvaro Herrero	24	

ICEUTE CONFERENCE

Title	Authors	ID Conference	Session
ICEUTE CONFERENCE			
Evaluation of an interactive guide for robotics self-learning	Alvaro Ovejero, Jesús Enrique Sierra-Garcia and Matilde Santos	1	11
Gamifying the classroom for the acquisition of skills associated with Machine Learning: a two-year case study	Antonio Manuel Durán-Rosal, David Guijo-Rubio, Víctor Vargas, Antonio Manuel Gómez-Orellana, Pedro Antonio Gutiérrez and Juan Carlos Fernández	2	
Hackathon in teaching: applying machine learning to Life Sciences tasks	David Guijo-Rubio, Víctor Manuel Vargas, Javier Barbero-Gómez, Jose Vicente Die and Pablo González-Moreno	3	
Digital platforms for education. The case of e4you	Javier Parra-Domínguez, Sergio Manzano, Susana Herrero and Pablo Chamoso	4	
3D Virtual Laboratory for Control Engineering using Blended Learning Methodology	Francisco Zayas-Gato, Álvaro Michelena, Esteban Jove, José-Luis Casteleiro-Roca, Héctor Quintián, Elena Arce and José Luis Calvo-Rolle	5	