

20 October 2023  
Spain Time: GMT+1



an Iberoamerican Conference  
Madrid  
Spain



09:00 - 09:20 Open session



Keynote Simone Belli  
Novel perspectives in measuring machine intelligence



Parallel session 1

(Host: Teresa Guarda)



Parallel session 2

(Host: Jose Maria Diaz-Nafria)



Parallel session 3

(Host: Filipe Portela)

9:20 - 10:50 S1.1 - Sustainability (Chair **Modestos Stavrakis**)

9:20 - 10:50 S2.1 - Data Intelligence Chair **Antonio J. Muñoz Montoro**

9:20 - 10:50 S3.1 - Ethics, Security, Privacy, and Interdisciplinary Information Studies (Chair **Tiago Pereira**)

- 8536 **Internet of Things in Business & Management: Current Trends, Opportunities & Future Scope**  
*Swati Sharma*
- 1221 **Flexibility and Productivity in IoT Programming: A Case Study with mruby**  
*Kazuaki Tanaka, Sota Ogura, Krishnamoorthy, Ko-Ichiro Sugiyama and Miyu Kawahara*
- 6641 **Methods of allocation of urban centers**  
*Alexander Katynsus, Anna Pavlova, Inna Arseneva, Ekaterina Shapovalenko and Sergey Mityagin*
- 5736 **Digital Master Plan as a tool for generating territory development requirements**  
*Tatiana Churiakova, Vasilii Starikov, Vladislava Sudakova, Aleksandr Morozov and Sergey Mityagin*
- 8445 **Technology and the generation gap: How e-expertise present in youths positively affects online purchases**  
*José Magano, Manuel Au-Yong-Oliveira and José Pedro Teixeira Fernandes*
- 7498 **Impact of Biometric Sensors on Physical Activity**  
*Teresa Guarda, Datzania Villao and Maria Fernanda Augusto*

- 551 **Leveraging Large Language Models for Literature Review Tasks - A Case Study Using ChatGPT**  
*Robert Zimmermann, Marina Staab, Mehran Nasserli and Patrick Brandtner*
- 3227 **Steels Classification Based on Micrographic morphological and Texture Features Using Decision Tree Algorithm**  
*Yamina Boutiche and Naima Ouali*
- 3338 **Amazlem: the first Amazigh lemmatizer**  
*Rkia Bani, Samir Amri, Lahbib Zenkouar and Zouhair Guennoun*
- 4218 **The method of contextual selection of the functions of cultural heritage objects based on the urban environment network model**  
*Andrei Drozhzhin, Igor Lavrov, Egor Loktev and Sergey Mityagin*
- 4394 **Urban lawns state identification method based on computer vision**  
*Roman Bezaev, Sergey Mityagin, Aleksey Sokol, Daniil Zhembrovskii, Alexander Kryukovskiy and Irina Melnichuk*
- 3214 **Deep Learning model for the recognition of its environment of an intelligent system**  
*Jesús Ocaña, Guillermo Miñan, Luis Chauca, Víctor Ancajima and Luis Leiva Cilio*

- 6780 **Data-Driven Intelligence can Revolutionize Today's Cybersecurity World: A Position Paper**  
*Iqbal Sarker, Helge Janicke, Leandros Maglaras and Seyit Camtepe*
- 7258 **The relation between Mayer's multimedia theory and Berthoz's simplicity paradigm for inclusive education**  
*Alessio Di Paolo*
- 7799 **Developing a Data Privacy Framework for Higher Education Institutions in South Africa: Analysis and Recommendations**  
*Krithica Latchman, Hanifa Abdullah and Adele Da Veiga*
- 8538 **DrugChecker : Blockchain-based counterfeit drug detection system**  
*Amia Zaimia and Hajlaoui Jalel Eddine*
- 7276 **Ethical Implications of Transparency and Explainability of Artificial Intelligence for Managing Value-Added Tax (VAT) in Corporation**  
*Zornitsa Yordanova*
- 4285 **Maturity Model of Response Protocols to Ransomware Scenarios in the Mining Sector**  
*Juan Pablo Mansilla Lopez, Saul Vargas Aznarán and Brighnith Gomez*

10:50 - 11:00 Virtual Coffee Break

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# ARTIIS



## Parallel session 1

(Host: Teresa Guarda)

11:00 - 13:00 S1.2 - Computing Solutions and Gamification (Chair **Gonzalo Aguila**)

4666 **Enhancing the museum experience: a gamified approach of an interactive installation in the Industrial Museum of Hermoupolis**  
*Athina Bosta and Modestos Stavrakis*

7260 **A serious game about apps, data-sharing and deceptive design**  
*Ingvar Tjostheim*

4713 **Gamification in Recommendation Systems A Systematic Analysis**  
*Agyeman Murad Taqi, Munther Qadous, Mutaz Salah and Fezile Ozdamli*

9175 **The foggy frontier: exploring the fog and edge computing for online games**  
*João Paulo de Sousa, Rogério Tavares and Jesús Torres Jorge*

3733 **Impact of Mobile Technology on Learning and Library Policies**  
*Irena Peteva, Stoyan Denchev and Elisaveta Tsvetkova*

1507 **Software Solution to Automatize Evaluation and Accreditation Process in Higher Education**  
*Hristina Kostadinova, George Totkov and Stoyan Atanasov*

4076 **alBERTUM: A Portuguese Search Engine for Scientific and Academic Language**  
*Silvia Araujo, Micaela Aguiar and José Monteiro*

7290 **E-Learning for the empowerment of high school girl students**  
*Manuel Delzo-Zurita, Diego Pickman-Montoya, Daniel Burga and David Mauricio*

13:00 - 14:00 Lunch Virtual



## Parallel session 2

(Host: Jose Maria Diaz-Nafria)

11:00 - 13:00 S2.2 - Computing Solutions (Chair **Fernando Rodríguez Varela**)

4205 **A Novel Optimization Algorithm for Smart Video Surveillance System and Change Object Detection**  
*Muhammad Fahad and Shafaq Siddiqi*

9319 **Reliable Reputation-based Event Detection in V2V Networks**  
*Vincenzo Agate, Alessandra De Paola, Giuseppe Lo Re and Antonio Virga*

7522 **Digitizing musical skills in elementary school with the use of Instagram**  
*Almudena Álvarez-Castro and Jorge Rafael Gonzalez Teodoro*

1277 **Software quality in the IOT in Health sector and Commerce sector**  
*Karina Ojo-Gonzalez, Belen Bonilla-Morales and Miguel Vargas-Lombardo*

3098 **Mobile app for the payment of electronic tickets using NFC technology in the public transport system in Lima Metropolitana**  
*Fabrizio Dávila, Guillermo Gonzales and Juan-Pablo Mansilla*

8422 **Control of type 1 and 2 diabetes in middle-aged individuals at private clinics: A technological solution based on wearables and IoT**  
*Diego Zapata, Sofia Bravo and Juan-Pablo Mansilla*

1301 **Implementation of a System for Measuring the Physical Performance of Football Players Based on Analytic Hierarchy Process Method (AHP)**  
*Jose Luis Jinez-Tapia, Luis Gonzalo Santillan-Valdiviezo, Carlos Ramiro Peñafiel-Ojeda, Jaime Puetate-Paredes and Paulina Valle-Oñate*

4027 **Adaptive Key Management-Based Privacy Preservation Protocol for Healthcare Data**  
*Pankaj Khatiwada, Nishu Gupta, Bian Yang and Mohammad Derawi*

13:00 - 14:00 Lunch Virtual



## Parallel session 3

(Host: Filipe Portela)

11:00 - 12:15 S3.2A - ISTIIS (Chair **Filipe Portela**)

1624 **Coffee Silverskin: Unveiling a Versatile Agri-Food By-Product for Ethical Textile Coatings**  
*Augusta Silva, Agata Nolasco and Carla Silva*

5263 **3D printing using natural fibers - an emerging technology in sustainable manufacturing: A review**  
*Cristina Oliveira, Denise Carvalho, Isabel Moura, Bernardo Ribeiro and Flávio Ferreira*

5472 **aWaRe: Aiming for Water and Waste Reduction, Reuse and Recycling**  
*Margarida Fernandes, Augusta Silva, Carla Silva, Pedro Silva, Ricardo Silva, Mário Silva, Filipe Rodrigues, Beatriz França, Helena Vilaça, Rosa Silva, José Morgado, Pedro Magalhães*

7200 **STVgoDigital: a Digital Product Passport solution**  
*Miguel Sá, Catarina Guise, Filipa Costa, Paula Rodrigues, Carla Silva, João Oliveira, Ana Barros, Ricardo Silva, Toni Alves, Manuel Santos, António Miguel Rosado da Cruz, Marcelo Alves and Carla Joana Silva*

8972 **Automatic EPS Calculation Guided Genetic Algorithm and Incremental PCA Based DBSCAN of Extracted Acoustic Features for Anomalous Sound Detection**  
*Xiao Tan, Siu Ming Yiu*

12:15 - 13:00 S3.2B - ISIFE (Chair **Alessia Amelio**)

2320 **Social Media Intelligence (SOCMINT) as a tool for conducting intelligence activities**  
*Antonio Teti*

5448 **Geometrical acoustics in cultural heritage conservation and promotion: digitalization of the acoustic characteristics**  
*Sergio Montelpare, Mariano Pierantozzi, Samantha Di Loreto, Alessandro Ricciutelli and Marta Ferrara*

5795 **The Language of the Forensic Structural Engineering**  
*Regina Finocchiaro, Samuele Biondi and Franco Bontempi*

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Parallel session 1

(Host: Teresa Guarda)

14:00 - 16:00 S1.3 - Data Intelligence

(Chair **Nishu Gupta**)

- 5377 **Optimising a Formulated Cost Model to Minimise Labour Cost of Computer Networking Infrastructure: A Systematic Review**  
*Richard Nana Nketsiah, Richard C. Millham, Israel Eden Agbehadji, Emmanuel Freeman and Ayogebah Epizitone*
- 5941 **Comparison of solution methods the maximal covering location problem of public spaces for teenagers in the urban environment**  
*Maksim Natykin, Sergey Mityagin, Semen Budenny and Nikita Zakharenko*
- 8942 **A Machine Learning Approach for the Simultaneous Prediction of Dynamic Modulus and Phase Angle of Asphalt Concrete Mixtures**  
*Fabio Rondinella, Fabiola Daneluz, Bernhard Hofko and Nicola Baldo*
- 6814 **Trends in Computer Networking Congestion Control: A Bibliometric Analysis**  
*Richard Nana Nketsiah, Israel Edem Agbehadji, Richard C. Millham, Samuel A. Iwarere and Emmanuel Freeman*
- 9881 **Characteristics of Word-of-Mouth (WOM) by the Interaction Between Feedback Willingness and Incentivized WOM Willingness**  
*Takumi Kato and Toshikuni Sato*
- 6453 **Domain-specific Sentiment Analysis of Tweets using Machine Learning Methods**  
*Tshephisho Joseph Sefara and Mapitsi Rangata*
- 9412 **Blockchain and Robotic Process Automation Working Together**  
*Teresa Guarda, Samuel Bustos, Manuela Cañizares Espada and Daniel Gracia Garallar*
- 4811 **A behavior-based fuzzy control system for mobile robot navigation: design and assessment**  
*Juan Pablo Vásconez, Mailyñ Calderón-Díaz, Inesmar C. Briceño, Jenny M. Pantoja and Patricio J. Cruz*



Parallel session 2

(Host: Jose Maria Diaz-Nafria)

14:00 - 16:00 S2.3 - ACMaSDA

(Chair **Carlos Balsa**)

- 9029 **A Simple Mathematical Model to Steering Oceanic Debris to a Targeted Region**  
*Carlos Balsa, Victoria Otero-Espinar and Silvio Gama*
- 6201 **Parametric Study of a Stochastic SEIR Model for a COVID-19 Post-Pandemic Scenario**  
*Carlos Balsa, Everaldo Padua, Luan Pinto and José Rufino*
- 4219 **Impact of technology revolution on economic development over the past decade**  
*Maria Ribeiro, Márcia Rogão, Isabel Lopes and António Fernandes*
- 3500 **Chaos Analysis and Machine Learning for Forecasting Climate Change in some countries of Latin America**  
*Guido Tapia, Saba Infante, Isidro Amaro and Francisco Hidrobo*
- 4283 **Climate time series prediction by convex polygons and the Kalman Filter**  
*Jose Soto, Saba Infante and Aracelis Hernandez*
- 9727 **Data Analysis for performance improvement of university students using IoT**  
*Manuel Ayala-Chauvin, Patricio Lara-Alvarez and Ricardo Castro*
- 7996 **Language as a moderating factor in cyber-safety awareness among school learners in South Africa: Systematic Literature Review**  
*Amukelani Lisa Nkuna and Elmarie Kritzinger*
- 7109 **Digital Platforms, digitization of community businesses in the province of Santa Elena - Ecuador**  
*Linda Nuñez, Ronaldo Castro and Linda Núñez, Ronaldo Castro and Jakson Rodrigues*



Parallel session 3

(Host: Filipe Portela)

14:00 - 16:00 S3.3 - Computing Solutions

(Chair **Manuela Cañizares**)

- 1854 **A Mathematica Function to Get a List of Random Inequalities and their Respective Solution Sets**  
*Judith Jiménez-Vilcherrez, Robert Ipanaqué-Chero, Ricardo Velezmoro-León and Marcela Velásquez-Fernández*
- 3959 **A Fleet Allocation with Analytic Network Process and Time Dependent Variables**  
*Hector Borcoski, Alexis Olmedo-Navarro, Luis Amigo, Javiara Jofre, Gustavo Gatica and Jairo Coronado-Hernandez*
- 4873 **Object Projection from R4 to R3 in Bachelor's degree with GeoGebra**  
*Judith K. Jiménez-Vilcherrez, Robert Ipanaqué-Chero, Ricardo Velezmoro-León, Marcela Velásquez-Fernández, Rolando Ipanaqué-Silva and César Silva-More*
- 1183 **Systematic Review of Technological Methods to Assess Executive Functions**  
*Carlos Ramos-Galarza, Patricia García-Cruz and Mónica Bolaños-Pasquel*
- 8779 **Scheme of the software engineering elements that are part of the development of eHealth-oriented models and frameworks**  
*Sandra Gutierrez-Rios, Clifton Clunie and Miguel Vargas-Lombardo*
- 7293 **Intelligent system comparing clustering algorithms to recommend sales strategies**  
*Gianella Arevalo-Huaman, Jose Vallejos-Huaman and Daniel Burga-Durango*
- 2067 **WS-YOLO: an agronomical and computer vision-based framework to detect drought stress in lettuce seedlings using IR imaging and YOLOv8**  
*Sebastian Wolter-Salas, Paulo Canessa, Reinaldo Campos-Vargas, Maria Cecilia Opazo, Romina V. Sepulveda and Daniel Aquavo*

16:00 - 16:15 Coffee Break Virtual

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## Parallel session 1

(Host: Teresa Guarda)

16:15 - 18:15 S1.4 - Ethics, Security, and Privacy

(Chair **Gustavo Gatica**)



## Parallel session 2

(Host: Jose Maria Diaz-Nafria)

16:15 - 18:15 S2.4 - ISHMC / IWE

(Chair **Jose Sergio Magdaleno Palencia**)



## Parallel session 3

(Host: Filipe Portela)

16:15 - 18:15 S3.4 - Data Intelligence and Sustainability

(Chair **Luis Matos**)

8691 **Perception of psychological recommendations generated by neural networks by student youth (using ChatGPT as an example)**  
*Anna Uglova, Irina Bogdanovskaya and Boris Nizomutdinov*

6251 **Evolution, Collaborations, and Impacts of Big Data Research in Ecuador: Bibliometric Analysis**  
*Jorge Buele, Manuel Ayala-Chauvin and Fátima Avilés-Castillo*

5218 **Ethical and Legal Challenges of Holographic Communication Technologies**  
*Natalia Giogiou, Niki Chatzipanagiotou and Alvin Jude*

4137 **Reflector Saturation in Amplified Reflection Denial of Service Attack Abusing CLDAP and Memcache Protocols**  
*João Gondim and Robson Albuquerque*

8124 **Model for a Real Estate Property Title Management System using Blockchain**  
*Daniel Burga-Durango, Leonardo Enriquez-Chusho and Antony Alcalá-Otero*

2934 **One-Time Passwords: A Literary Review of Different Protocols and Their Applications**  
*Luis Almeida, Brayan Fernández, Daliana Zambrano, Anthony Almachi, Hilton Pillajo and Sang Guun Yoo*

3224 **Social Engineering Shoulder Surfing Attacks (SSAs): A Literature Review. Lessons, challenges, and future directions**  
*Bryan Zurita, Santiago Bosque, Walter Fuertes and Mayra Macas*

6752 **Technological solution to optimize outpatient waiting time for medical care between multiple private healthcare institutions – A Preliminary Research**  
*Cesar Castro-Velasquez, Wendy Barrera-Barrera, Daniel Burga-Durango and Jimmy Armas-Aguirre*

109 **Analysis of Marketing Campaigns Results Through Unsupervised Learning with Apriori Association Modeling**  
*Ramón Loaiza Chávez and Bogart Yail Márquez Lobato*

1834 **Mobile application to identify non-perishable products using machine learning techniques**  
*Javier Sotelo, Arnulfo Alanis and Bogart Yail*

2525 **Efficient Spike Detection with Singular Spectrum Analysis Filter**  
*Ousmane Khouma, Mamadou Lamine Ndiaye and Idy Diop*

3062 **MangoFruitDDS: A Standard Mango Fruit Diseases Dataset made in Africa**  
*Demba Faye, Idy Diop, Nalla Mbye, Doudou Dione and Marius Mintu Diedhiou*

6490 **Management System For Pregnancy Evolution Tracking**  
*Jonathan Sanchez Luna, Arnulfo Alanis, Efrain Patiño, Bogart Yail*

9439 **Intelligent emotion prediction system for help in telemedicine therapies of children with ASD**  
*Denisse Herrera, Arnulfo Alanis, Rosario Baltazar and Daniel Velazquez*

5719 **Method Hand-Driven used for features extraction in OCT B-Scan images processed**  
*Fabricio Tipantocta, Oscar Gómez, Javier Cajas, German Castellanos and Carlos Rivera*

9145 **Empowering Low-Power Wide-Area Networks: Unlocking the Potential of Sigfox in Local Transmission**  
*Manuel Montañó Blacio, Vladimir Garcia Santas, Daniel Jaramillo Chamba, Washington Torres Guin and Luis Chuquimarca Jimenez*

7527 **Use of anomaly detection and object detection as basic support in the recognition of outlier data in images**  
*Shendry Balmore Rosero Vásquez*

6425 **Technological solution in real time based on IoT devices to optimize soccer team training**  
*Juan Pablo Mansilla Lopez, Rodrigo Francesco Castro Canta and Macuri Lumbe Hiro Andrés*

7661 **A Domain Specific Language proposal for internet of things oriented to Smart Agro**  
*Darwin Alulema, Verónica Alulema and Mayerly Saenz*

4241 **Agile model for the gradual and short-term deployment of an Enterprise Architecture in the Financial Sector**  
*Kevin Avalos-Varillas, Rafael Rivas-Carrillo and Daniel Burga-Durango*

6293 **Cooperation and Technological Capacity Development among Companies: Evidence from Ecuador**  
*Gustavo Hermosa, Astrid Aguilar, Mariana Reina and Myriam Moreno*

8173 **Survey based analysis on processed food and organic consumption pattern in India**  
*Kushi Jain, Jose Swaminathan and Dewar Rico*

6928 **Characterization and comparison of maximum isometric strength and vertical jump among novice runners, long distance runners, and ultramarathoners**  
*Mailyñ Calderón-Díaz, Ricardo Ulloa-Jiménez, Nicole Castro Laroze, Juan Pablo Vásquez, Jairo R. Coronado-Hernandez, Mónica Patricia Acuña-Rodríguez and Samir F. Umaña Ibañez*

18:20 Close session

