



ADINGOR

Asociación para el Desarrollo de
la Ingeniería de Organización



Escuela Técnica Superior de
INGENIERÍA DE SEVILLA



Junta de Andalucía

Consejería de Universidad,
Investigación e Innovación

CONFERENCE PROGRAM

CIO

SEVILLA

July 3rd-4th 2025

19th

International Conference
on Industrial Engineering
and Industrial Management
(ICIEIM)

XXIX

Congreso de Ingeniería
de Organización (CIO2025)





The main objective of Asociación para el Desarrollo de la Ingeniería de Organización (ADINGOR) is to contribute to the development and dissemination of theoretical knowledge and practical applications relating to the design, operation, management, control and improvement of systems (industrial and service provision, such as companies and other organisations) comprising people, equipment, materials, information, energy and financial resources, in a context of service to users, attention to the needs and interests of others involved and affected, and respect for the environment.

ADINGOR brings together Management and R&D&I professionals, both from Companies and Organisations and especially from universities. In particular, professionals and professors working in the field of Industrial Engineering, with a vision, training and knowledge of Engineering, and who therefore take into account in their approaches the role of the different visions (management, socio-economic, technological, etc.) in the design and operation of Company-Organisations systems.

As an operational objective, the Association is responsible for convening and organising the International Conferences on Industrial Engineering and Industrial Management (ICIEIM) and Congresos de Ingeniería de Organización (CIOs), for implementing actions that benefit its members (and the Society in general) and for establishing communication channels, serving as a communication nexus and a forum for exchange and discussion among its members.

<https://adingor.net/>

Dear participants:

On behalf of ADINGOR, it is my great honour and privilege to welcome you to the 19th International Conference on Industrial Engineering and Industrial Management (ICIEIM) and the XXIX Congreso de Ingeniería de Organización (CIO2025). We are delighted to celebrate this long-awaited gathering in the vibrant city of Seville, on July 3rd-4th, 2025. I would like to sincerely thank the organising committee for their effort in program everything on time and in full, as well as all the supporting institutions for their outstanding efforts to ensure the success of this year's congress, both in quality and participation.

It is a pleasure for me to present this new edition for our congress with a long-standing tradition that never ceases to evolve in order to address today's most urgent and relevant topics. This year, we meet to reflect about a motto at the core of industrial transformation: "Data Science: Applications and Challenges in Industrial Engineering". The organisers have planted the seed, it is now in our hands to help it grow throughout the congress.

Data is everywhere, Data is in the air, flowing through every system. Data generates more Data, that multiplies itself, often in an unstructured way. Data is the raw material, but Data Science adds more value to it providing us insight and impact, Data Science gives it meaning when used for the 3Ps: purpose, people and the planet.

During this year's congress we have the opportunity to share between us the successful stories told by data, the algorithms that guide industrial engineering decisions and how the data, interpreted with rigour and responsibility can transform the way Industrial Engineers lead, design and manage organisations. But not less important is to debate limitations, share uncertainties and build common background of this new data-intensive landscape.

Let me then, invite you to open your minds, to exchange ideas, and to contribute to this discussion. It is time to strength your network, to meet colleagues, and even make new friends. Enjoy a new edition of our congress with the perfect dosis of technical rigour and social dimension.

Let me invite you to be invaded by that special color of Seville, that so smiling Seville. In the end, let me invite all you to enjoy Seville with us.



Mareva Alemany Díaz

Universidad Politécnica de Valencia
President of ADINGOR

Welcome to the ICIEIM – CIO 2025 Conference!

We are delighted to welcome you to this year's conference, organized by ADINGOR at Universidad de Sevilla.

It is both an honor and a pleasure to gather once again with our scientific community, this time in the vibrant and historic city of Seville, where the traditions of industrial engineering meet modern innovations. This year's conference theme, "**Data Science: Challenges and Applications in Industrial Engineering**", underscores the growing significance of data and its analysis in driving industrial innovation and transformation. In addition to our traditional research streams, we aim to highlight the crucial role that data plays in optimizing decision-making processes in industrial applications.

As is customary, a selection of the best full papers will be proposed for further development and potential publication in the following journals: *Dirección y Organización (DyO)*, *Central European Journal of Operations Research (CEJOR)*, *International Journal of Production Management and Engineering (IJPME)*, *Journal of Industrial Engineering and Management (JIEM)*, and *Computers & Industrial Engineering (CAIE)*. In addition, this edition will feature a Special Issue of the journal *Computers & Industrial Engineering (CAIE)* entitled: "The Value of Data in Industrial Engineering: Optimizing Decision-Making for Enhanced Efficiency and Performance." This special issue will highlight outstanding contributions that connect data science with industrial engineering, fostering both theoretical advancements and practical applications.

We are also honored to feature a keynote lecture by **Prof. Dr. Francisco Herrera**, titled: "From Black Box to Trust: How Explainable Artificial Intelligence Can Support Better Human Decisions". This talk will address one of today's most critical topics: how transparency and interpretability in AI systems can enhance decision-making and foster trust in data-driven environments.

In addition, the conference will host a round table discussion with speakers from prominent companies, titled: “Industrial Engineering in the Age of Data: Insights from Technology, Infrastructure and Energy.” This session will provide valuable industry perspectives on how data transforming operational strategies across key sectors. The panel will include **María Caraballo** from Juniper Networks, **Miguel Escassi** from Google, and **Rafael Sánchez** from Endesa.

As we confront global challenges—from sustainability and digital transitions to economic resilience and strategic autonomy—our field’s commitment to interdisciplinary collaboration, stakeholder integration, and a systemic approach becomes ever more critical.

This year’s program is designed to foster lively discussions, insightful debates, and innovative ideas. We invite all participants to engage deeply with the ethical dimensions of data-driven technologies, considering their impacts on privacy, safety, and democratic governance.

Among the social events planned for the conference, participants will enjoy a guided city tour exploring the rich cultural heritage of Seville. Additionally, a Gala Dinner will be held by the banks of the Guadalquivir River, offering stunning views of the iconic Torre del Oro — a perfect setting to relax, network, and celebrate the occasion. We extend our heartfelt thanks to all the authors, reviewers, committee members, keynote speakers, and partner institutions who have made ICIEIM | CIO2025 in Seville a reality.

Let us seize this opportunity to build knowledge, strengthen our networks, and shape the future of industrial engineering—together.

Conference Organizing and Scientific Committee of ICIEIM | CIO 2025 Seville



Pablo Cortés
Achedad



Elena Barbadilla
Martín



Alicia Robles
Velasco

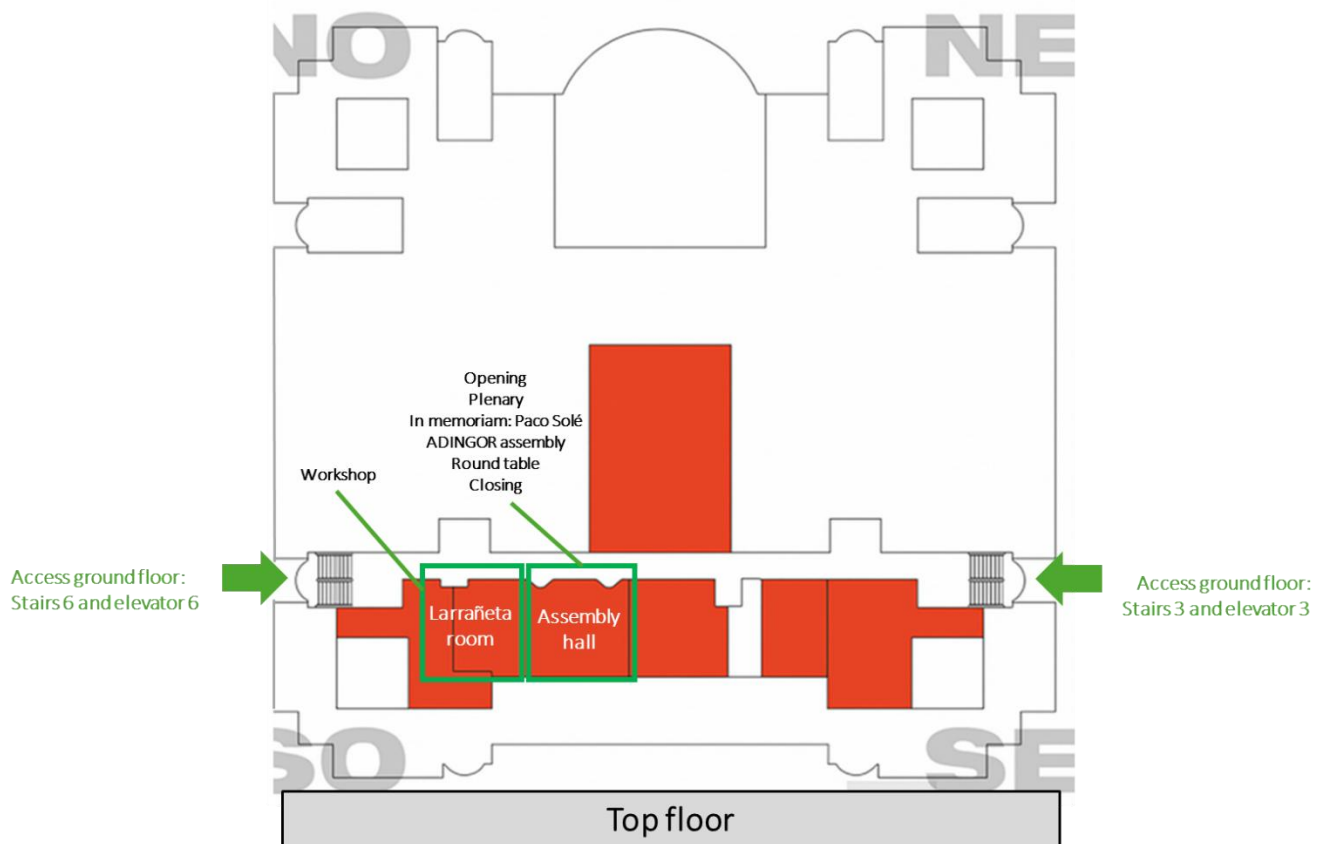
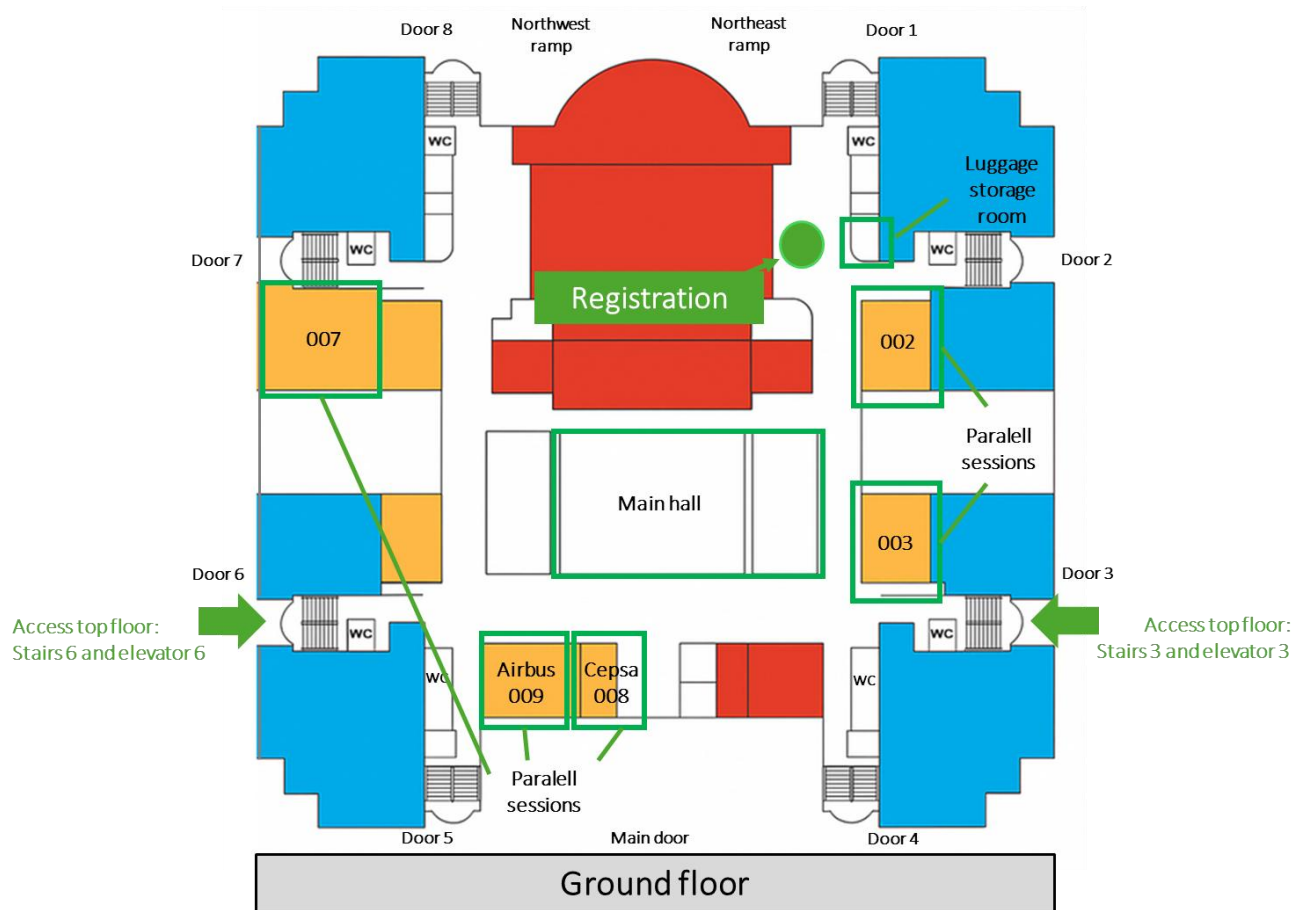


María Rodríguez
Palero

Wednesday, July 2 nd		
Time	Activity	Place
10:00-14:00	ADINGOR golf championship	Club Zaudín Golf Sevilla
18:00 -19:00	Registration	Northeast ramp corridor (ground floor)
18:00 -20:00	Workshop Adingor Joven	Cepsa Room 008

Thursday, July 3 rd		
Time	Activity	Place
8:30-10:00	Registration	Northeast ramp corridor (ground floor)
9:00 -10:00	Parallel session 1	Rooms
10:00 -10:45	Conference opening	Sala de grados (Assembly hall) (top floor)
10:45 -11:15	Coffee break	Main hall (ground floor)
11:15-12:00	Plenary session (key speaker)	Sala de grados (top floor)
12:00-13:30	Parallel session 2	Rooms
13:30-15:00	Lunch	Main hall (ground floor)
15:00-16:30	Workshop – Comisión de coordinación docente (ADINGOR)	Juan Larrañeta Room (top floor)
	Parallel session 3	Rooms
16:30-17:00	Coffee break & Poster session 1	Main hall (ground floor)
17:00-17:15	In memoriam: Paco Solé Parellada	Sala de grados (top floor)
17:15-18:30	ADINGOR assembly	Sala de grados (top floor)
20:00 -21:30	Walking city tour	City centre
21:30 -23:30	Gala dinner	Abades Triana Restaurante

Friday, July 4 th		
Time	Activity	Place
9:15 -10:30	Parallel session 4	Rooms
10:30 -11:00	Coffee break & Poster session 2	Main hall (ground floor)
11:00 -12:30	Parallel session 5	Rooms
12:30 -13:30	Round table	Sala de grados (top floor)
13:30 -14:00	Conference closing	Sala de grados (top floor)
14:00-15:00	Lunch	Main hall (ground floor)



Plenary session



**Francisco Herrera
Triguero**

**Full Professor in
Computer Science and
Artificial Intelligence at
the Universidad de
Granada**

**President of Spanish
Association of
Innovation in AI**

Francisco Herrera received his M.Sc. in Mathematics in 1988 and Ph.D. in Mathematics in 1991, both from the Universidad de Granada, Spain. He is a Professor in the Department of Computer Science and Artificial Intelligence at the Universidad de Granada and Director of the Andalusian Research Institute in Data Science and Computational Intelligence (DaSCI). He's an academician in the Royal Academy of Engineering (Spain).

He has been the supervisor over 65 Ph.D. students and has published more than 650 journal papers, receiving more than 171.000 citations (Scholar Google, H-index 191). He has been nominated as a Highly Cited Researcher (in the fields of Computer Science and Engineering, respectively, 2014 to present, Clarivate Analytics), acting as editorial member of a dozen of journals.

His current research interests include, among others, computational intelligence, information fusion and decision making, trustworthy artificial intelligence, general purpose artificial intelligence and data science.

Location, date and time

The plenary session will take place at the top floor, **Sala de Grados** on **July 3rd** from **11:15** to **12:00**.

Round table

From data to decision: Challenges and opportunities in strategic sectors and industrial implications



Miguel Escassi

Head of Government
Affairs and Public Policy
at Google Spain and
Portugal



María Caraballo

Senior Director of Services
Operations at Juniper



Rafael Sánchez

General Manager of
Andalusia and Extremadura
at Endesa



Location, date and time

The round table will take place at the top floor, **Sala de Grados** on **July 4th** from **12:30** to **13:30**. This session will be in Spanish.

Parallel session 1

Thursday, July 3rd - 09:00-10:00

A1 – Airbus Room 009

‘Operations Research, Modelling and Simulation’

Chair: Amaia Lusa

ID	Title	Authors
038	A DEVS-based study of social welfare evolution in iterative combinatorial double auctions	Juan De Antón, David Poza, Cristina Ruiz Martín, Félix Villafañez
019	Optimizing weekly purchases and designing standardized food baskets in food pantries	Marc Juanpera, Pol Gil Figuerola, Pol González Surinyach, Laia Ferrer Martí, Rafael Pastor
043	Optimality of stockless production in the presence of disruptions	Antonio Arreola Risa, Jordi Fortuny Santos, Carla Vintró
119	ANN-based prediction of maintenance costs in onshore wind turbines: The role of environmental factors	Luis Isasi Sánchez, Juan Pedro Arbáizar

A2 – Cepsa Room 008

‘Industry 5.0, Management Information Systems and H.R.’

Chair: Llanos Cuenca

ID	Title	Authors
021	A collaborative blockchain-based framework for inspection as a service toward zero-defects manufacturing	Joan Lario, Francisco Fraile, Aintzane Mosteiro, Begoña Mendizabal, Noel Tomas
047	Exploring the impact of generative artificial Intelligence in manufacturing: Applications and implications	Ane Arregi, Jabier Retegi, Juan Ignacio Igartua, Dorleta Ibarra
081	Hybrid architecture implementing self-healing mechanisms for distributed AI network management in industry	María Boluda Prieto, Miguel A. Mateo Casalí, Francisco Fraile, Faustino Alarcón
015	Relevance of nationality for the analysis of the accident rate in the spanish construction industry	Carlos de las Heras Rosas, Francisco Salguero Caparrós, Manuel Suárez Cebador, Virginia Herrera Pérez

A3 – Room 002

‘Supply Chain Management and Logistics’

Chair: Elvira Maeso González

ID	Title	Authors
014	Sustainable multi-trip vehicle routing problem for last-mile delivery: Controlling the environmental, economic and social pillars	Juan Bastero Sellán, Iria González Romero, José Carlos Prado Prado
051	Private parking to enhance last-mile delivery with hubs and parcel lockers in Seville	Pablo Aparicio Ruiz, Antonio Lorenzo Espejo, Elena Barbadilla Martín, María Rodríguez Palero
091	Wood supply chain optimization: Current methods and research opportunities	Javier A. Cuartas Micieces, Daniel Riera, Raúl Poler
004	Analyzing the efficiency of packing process for e-commerce orders: A case study in the fashion sector	Jacobo Escurís Ouviaña, Jesús García Arca, Iria González Romero, José Carlos Prado Prado

A4 – Room 003

‘Production Planning and Control’

Chair: Fernando Acebes

ID	Title	Authors
049	Applicability of few-shot learning in tool wear prediction	María Boluda Prieto, Francisco Fraile, Ana Esteso, María del Mar Alemany
059	Enhancing lead time prediction in wind tower manufacturing: A ML approach compared to traditional engineering models	Kenny-Jesús Flores Huamán, Antonio Lorenzo Espejo, María Luisa Muñoz Díaz, Alejandro Escudero Santana
063	A literature review of existing state-of-the-art approaches for the dynamic scheduling and rescheduling problem	Juan Pablo Fiesco, Ana Esteso, Raúl Poler
136	A decision-making tool based on a heuristic approach to the sequencing of sample analysis processes	Marta Guerrero Martínez, Raúl Poler, Josefa Mula, Blanca Guerrero

Parallel session 2

Thursday, July 3rd - 12:00-13:30

B1 – Airbus Room 009

‘Supply Chain Management and Logistics’

Chair: María del Mar Alemany

ID	Title	Authors
016	Sustainability of last mile in e-commerce: A scoreboard	Iria González Romero, Mar Vázquez-Noguerol, José Carlos Prado Prado
017	Benchmarking sustainability initiatives in road freight transport	Mar Vázquez-Noguerol, Iria González Romero, Jesús García Arca, José Carlos Prado Prado
065	Address parsing in the era of LLMs: A comparative analysis	Ana Pegado Bardayo, Jesús Muñuzuri, Alicia Robles Velasco, Juan Carlos Ragel Bonilla
124	Evaluating socio-economic drivers of service completion in last-mile and first-mile reverse logistics	Antonio Lorenzo Espejo, Kenny-Jesús Flores Huamán, Luis Onieva, Ana Pegado Bardayo
133	Integration of computational techniques with ant colony optimization for distance optimization in road transportation: A systematic review	Geraldo Cardoso de Oliveira Neto, Francisco de Carvalho Delmondes, Flávio Luiz Rodrigues, Marlene Amorim, José Carlos Prado

B2 – Cepsa Room 008

‘Operations Research, Modelling and Simulation’

Chair: Joaquín Bautista

ID	Title	Authors
012	Family-aware grouping strategy for infection control in schools	José Manuel Galán, Silvia Díaz de la Fuente, Virginia Ahedo, José Ignacio Santos
020	Systematic review of machine learning applications in port operations optimization	María Boluda Prieto, Ana Estesó, María del Mar Alemany, Ángel Ortiz
073	Optimising custom furniture pricing: Design and development of a quotation tool	Blanca Guerrero, Juan Campos, Josefa Mula, Raúl Poler, Jordi Almendros
078	Heijunka sequencing on assembly lines with product options, work overload and variable working day length	Joaquín Bautista, Rocío Alfaro Pozo, Amaia Lusa

B3– Room 002 <i>‘Doctoral Symposium’</i> <i>Chair: Jesús Muñuzuri</i>		
ID	Title	Authors
050	Multi skill resource constrained project scheduling problem with sustainable considerations	Miguel P. de la Pisa, Ignacio Eguía, José Carlos Molina
098	Autonomous negotiation system in manufacturing-as-a-service using artificial intelligence agents	Andy J. Figueroa, Raúl Poler, Beatriz Andrés
107	Artificial intelligence and optimization models for agile and resilient production planning and control	Juan Pablo Fiesco, Ana Esteso, Raúl Poler
126	Data-driven and knowledge-based methods for strategic decision-making in supply chain management	Ana Mojica, Beatriz Andrés, Rocío de la Torre
B4 – Room 003 <i>‘Education and Knowledge Transfer in Industrial Engineering’</i> <i>Chair: Alejandro Escudero Santana</i>		
ID	Title	Authors
013	A benchmark framework for sentiment analysis in spanish-language higher education	Karen Reina Sánchez, Juan Pedro Arbáizar Gómez, Alfonso Durán Heras
070	Gamifying business model innovation: A tool for enriching entrepreneurship education	Francisco Javier Martínez Borreguero, Sandra Ramos Gutiérrez, Isabel García Gutiérrez
079	Comparison of generative AI tools in engineering education: A practical approach	Guillermo Montero
092	How action research can enhance knowledge transfer and university-industry cooperation	Adolfo López Paredes, José María De la Varga, Fuensanta Galindo Reyes, José Manuel González Varona
052	Enhancing logistics and transport education through project-based learning: A case study	Pascual Cortés Pellicer, Juan Martínez Tomás

B5 – Room 007

‘Circular Economy, Quality Management and SDGs’

Chair: David de la Fuente

ID	Title	Authors
011	Sustainable balanced scorecard, challenges and opportunities in the last decade: Bibliometric research	Amy Monteros Tamayo, Ximena Rojas Lema
030	Assessing scope 3 emissions in industrial value chains: A query combination methodology approach	Jabier Retegi, Dorleta Ibarra, Juan Ignacio Igartua, Lierni Rabanete
031	Enhancing Pay-As-You-Go through bidirectional communication	Carlos Cuenca Enrique, Laura del Río Carazo, Marta Seral Hernández, Emiliano Acquila Natale, Santiago Iglesias Pradas
064	Circular economy in the plastic industry: A situational analysis and a strategic action plan	Salvador Pérez Canto
067	Influence of hotel sustainability certificates on comfort: The case of Ecostar	Germán Arana Landín, Naiara Uriarte Gallastegi, Beñat Landeta Manzano, Merce Bernardo Vilamitjana, Amaia Mendoza Larrañaga, Xabier Gonzalez Lasquibar

Parallel session 3

Thursday, July 3rd - 15:00-16:30

C1 – Airbus Room 009

‘Supply Chain Management and Logistics’

Chair: María Victoria de la Fuente

ID	Title	Authors
035	Speeding up negotiations for prototypes in an industrial project thanks to blockchain	Manuel Sobrino, Javier Pajares, Joaquín Adiego, Fernando Acebes
054	Examining the critical airspace regions of EUROCONTROL	José M. Sallán Leyes, Marta Faure, Oriol Lordan, Álvaro Amasuno
096	Enhancing supply chain efficiency through manufacturing optimisation as a service (MOaaA)	Jordi Almendros, Josefa Mula, Raúl Poler, Juan Moreno, Blanca Guerrero, Marta Guerrero Martínez
128	Managing the sectoral roundtables of the forestry sector in Castilla-La Mancha: analysis and implications for the development of the forest bioeconomy	Camilo Muñoz Arenas, Carmen Avilés Palacios, María Melero de Blas, Diego López Torrijos
066	Measuring emissions in interurban passenger transport	Salma El-Bied, Salvador Martínez Artero, María Victoria de la Fuente, Lorenzo Ros

C2 – Cepsa Room 008

‘Doctoral Symposium’

Chair: Josefa Mula

ID	Title	Authors
062	The future in the automotive sector: A proposal for studying	Jacobo Boquera Rubio, Carlos Andrés Romano, Pilar I. Vidal Carreras
077	Optimization models and algorithms for sustainable and integrated port operations	María Boluda Prieto, Ana Esteso, María del Mar Alemany, Ángel Ortiz
082	A review of facility layout problem methods applied to bi-directional logistics context	Paola Vintimilla, Faustino Alarcón
114	A provider-driven value identification and analysis framework in the context of a smallholder agricultural supply chain in the Cauca Valley (Colombia)	Nadia Perveen, Diego Peña Orozco, Jesús González Feliu, Isabelle Sueur

C3 – Room 002

‘Operations Research, Modelling and Simulation’

Chair: Ángel Ortiz

ID	Title	Authors
039	From natural language to executable models. How ChatGPT writes a system dynamics model	Francisco Campuzano Bolarín, David López López, Juan Martín García
094	Dynamic routing of aerial vehicles for maritime surveillance: A discrete vs. continuous time approach	Sofía Veldman, Miguel Ortega Mier, Miguel Gutiérrez, Álvaro Herráiz Solla
097	Particle swarm optimization for the optimal power flow in distribution networks	Laura Mardones Suárez, Álvaro García Sánchez, Araceli Hernández Bayo, Luis Badesa Bernardo
100	Conceptual framework for hospital bed management in Industry 4.0 context	Laura Moya Ruiz, Llanos Cuenca, María del Mar Alemany, Miguel Ortiz Barrios
106	Component warranty cost analysis using a fuzzy approach	Juan Cogollo Flórez, Mónica Arteaga Sierra

C4 – Room 003

‘Circular Economy, Quality Management and Service Systems’

Chair: Alfonso Durán Heras

ID	Title	Authors
069	Simulation-based optimization of the 3Rs in circular construction using integrated digital twins and multi-agent reinforcement learning	Eduardo Guzmán, Sandra Tobón, Beatriz Andrés, Marta Torres
083	Circular economy: A review of trends and connections with Industry 4.0	Sandra Ramos Gutiérrez, Javier Martínez Borreguero, Isabel García Gutiérrez
121	Bus fleet replacement for costs and CO2 minimization: A case study	Miguel A. Tagua Navarrete, Javier Serrano Reyes, José Antonio Vélez Godiño, Francisco J. Jiménez Espadafor
134	Integrating circular economy strategies with corporate social responsibility for sustainable impact	Juan Manuel Valverde Izquierdo, Carmen Avilés Palacios
138	Structuring digital professionalism: A typology for managing conduct in service-oriented systems	Marlene Amorim, Ana Conceição

Workshop: C5 – Juan Larrañeta Room (Top floor)

‘Análisis de la asignatura de TFG/TFM en las carreras afines a Adingor’

José Manuel Galán, Javier Santos

Parallel session 4

Friday, July 4th - 09:15-10:30

D1 – Airbus Room 009

‘Industry 5.0, Management Information Systems and Robotics’

Chair: Izaskun Álvarez Meaza

ID	Title	Authors
024	Zero defect and zero waste digitalization: A secure data exchange framework for non-destructive inspection solutions	Joan Lario, Marcos Terol, Javier Mateos, Noel Tomas
086	An ontological framework integrating artificial intelligence and digital assets for zero-defect manufacturing	Miguel A. Mateo Casalí, Andrés Boza, Francisco Fraile
116	Extended reality to prioritise human tasks on the shop floor	Josefa Mula, Elena Pérez Bernabeu, Blanca Guerrero, Xabier A. Martín, Marta Guerrero
132	Multiple response optimization: A review of methods that apply interactive and posterior preference articulation approaches	Leman Esra Dolgun
071	AgentBlock: Infrastructure for blockchain-enabled robotic production platforms	Rommel Velastegui, Raúl Poler, Manuel Díaz Madroño

D2 – Cepsa Room 008

‘Supply Chain Management and Logistics’

Chair: Gerusa Giménez

ID	Title	Authors
005	Urban stakeholders classification in last mile logistics. Stakeholder matrix	Juan A. Marco Montes de Oca, Tomás García Martín, Marta Serrano Pérez
010	From measurement to circularity: A bibliometric review of supply chain transition	Santiago Antonio Villalba Vinuesa, Ximena Rojas Lema
053	Logistics management for ecommerce: considerations for the digital transformation of companies in a systematic	Rodrigo Gallardo Canales, Ester Guijarro Tarradellas, Cristina Santandreu Mascarell
093	A mathematical model to redesign with synergies in multi-business supply chains	Nicolas Anich, Manel Mateo Doll, Rosa Galleguillos Pozo

D3 – Room 002
‘Miscellaneous’
Chair: David Poza

ID	Title	Authors
040	Participatory processes and co-management for the governance of urban spaces: A case study application	Sara Romero Muñoz, Teresa Sánchez Chaparro, Alberto Peralta Campos
007	Accident risk perception in the construction industry	Estela Diaz, Jesús Abad
075	Quarterly work planning in inclusive contexts: Training, skill decay, and employment stability for workers with intellectual disabilities	Sofía García Manglano, Julien Maheut, Julio J. García Sabater
120	Spreadsheet-based client-server platform to support online e-learning of cornerstone industrial management concepts. A use case	Juan Pedro Arbáizar Gómez, Karen Reina Sánchez, Alfonso Durán Heras

Parallel session 5

Friday, July 4th - 11:00-12:30

E1 – Airbus Room 009

‘Operations Research and Strategy’

Chair: Raúl Poler

ID	Title	Authors
135	Discrete event simulation to support production planning in real systems	María Luisa Muñoz Díaz, Christian La Banca, Alejandro Escudero Santana, Kenny-Jesús Flores Huamán
109	A graph-based conceptual model for MILP modeling	Juan Moreno, Josefa Mula, Raúl Poler, Jordi Almendros
056	Decision transformer as a classifier for the Iris dataset: A preliminary study	Carlos García-Castellano Gerbolés, José Costas, Raúl Pino, Miguel Gutiérrez
025	Predicting the impact of management science research through DistilBERT transformer-based model	Maite Jaca-Madariaga, Enara Zarrabeitia Bilbao, Rosa María Rio Belver, Izaskun Álvarez Meaza
118	Regional impact of science and technology parks on innovation	Marcos Antón Tejon, Andrés Barge Gil, Alberto Albahari

E2 – Cepsa Room 008

‘Education in Industrial Engineering’

Chair: Miguel Ortega Mier

ID	Title	Authors
058	Constructed wetlands in the classroom: A strategy for learning and sustainable development	Montserrat Ramírez Melgarejo, Celene Arista Perrusquía, Manuel Burelo, Dagoberto Garza Nuñez, Carlos Alberto González Almaguer
104	Real cases as a tool for developing critical thinking in the classroom and response to the 2030 Agenda. Case study UPM-Paradores de turismo	Pablo Villamor López-Guerrero, Lola Storch de Gracia, Ruth Carrasco Gallego, Natividad Buceta, Andrés De Las Heras, Candela Pérez, Águeda Areilza, Ana Díaz
115	Integrating a model with an interface to support decisions in scheduling at a business school: A case study	Rosa Galleguillos Pozo, Pablo Rial González, Milena Perozo Gutiérrez, Olaya Santamaria Queiruga
130	Modular learning: A lego-based framework for undergraduate students project management	Natalia Frías Reid, Carlos Alberto González Almaguer, Mònserrat Ramàiriz Melgarejo
125	The student’s role facing AI: A conceptual framework integrated into the business model Canvas	Camilo Muñoz Arenas, Sara Romero Muñoz, Carmen Avilés Palacios, Joaquín García Alfonso

E3 – Room 002

‘Supply Chain and Circular Economy’

Chair: Isabel García Gutiérrez

ID	Title	Authors
076	Waste management after natural disasters: The case of the DANA in Valencia	Pascual Cortés Pellicer, Faustino Alarcón, David Pérez Perales
095	Gender-based optimization of temperature ranges and clothing insulation using SVM and SVR	Juan Carlos Ragel Bonilla, Pablo Aparicio Ruiz, Elena Barbadilla Martín, José Guadix
003	Relevance and future state of research on advanced systems in last mile logistics	José Carlos Hernández, Jesús Muñuzuri
113	B2C and C2B urban freight demand modelling from company data: Methodology and application to the city of Seville	Ana Pegado Bardayo, Jesús González Feliu, Antonio Lorenzo Espejo, Jesús Muñuzuri
111	A decision-making tool for evaluating the redesign of a supply chain through outsourcing. A case study	Manel Mateo Doll, Nicolás Anich, Enric Sánchez Ros, Joaquim Minguella Canela

E4 – Room 003

‘Project and Process Management’

Chair: Javier Pajares/Guillermo Montero

ID	Title	Authors
027	Benchmarking multi-project scheduling: Commercial software vs. academic algorithms	David Poza, Agustín Araújo, Juan De Antón, Félix Villafañez
033	A hybrid proposal framework for R&D&i project management	Fernando Acebes, Sindy Menéndez, Natalia Martín Cruz, Javier Pajares
042	Applying process mining to optimize business processes in projects in developing countries	Carlos Cuenca Enrique, Laura del Río Carazo, Diego Calle García, Ángel García Hernández, Julián Chaparro Peláez
048	Digital transformation in a construction sector company: Focusing on project management technologies	Jaime Galaz de Miguel, Izaskun Álvarez Meaza, Ernesto Cilleruelo Carrasco, Enara Zarrabeitia Bilbao
034	Is something missing from project risk management? – Correlation matters	Javier Pajares, Natalia Martín Cruz, José Manuel González Varona, Fernando Acebes

Poster session 1

Thursday, July 3rd - 16:30-17:00

ID	Title	Authors
006	Technological innovation and sustainability in textile SMEs: A strategy for the future	Israel Naranjo, Rocío de la Torre, Andrés Boza, Llanos Cuenca
008	Low-level disturbances and organizational resilience	José Sevilla Ruiz, Cristina Ruiz Martín, José Juan Nebro Mellado, Adolfo López Paredes
018	Assessing the effectiveness of women's leadership programs through multicriteria decision approach	Ana Verdú-Herráez, Eugenia Babiloni
023	Education innovation based on OMiLab digital ecosystem for open platform for modeling the factory of the future	Joan Lario, Ramona León, María del Mar Alemany, Ángel Ortiz
028	Industry 5.0 and sustainable business practices: The mediating role of personalization	Omar León, David de la Fuente, Isabel Fernández, Javier Puente
036	Internet of Lifts: A cloud framework for optimal elevator group control systems in smart cities	Alejandro Escudero Santana, Pablo Cortés, Jose Guadix, Jesús Muñuzuri, Luis Onieva
037	Virtual Reality from the industry to the classroom	Jon Borregan Alvarado, Gaizka Insunza Aranceta, Maite Jaca-Madariaga, Naiara Pikatza Gorrotxategi
044	Holistic energy consumption prediction in homes: An IoT and deep learning approach	Javier R. Caparrós, Felipe Romero, Elvira Maeso González, Luis F. Romero

Poster session 1

Thursday, July 3rd - 16:30-17:00

ID	Title	Authors
046	Integrated methods in replenishment planning processes	Beatriz Andrés, Ana Mengual, Ana Isabel Pérez Molina, Elena Pérez-Bernabeu
055	Servitization of roll-to-roll production in the biosensing manufacturing industry	Juan Antonio Torrecilla García, Agnieszka Grazyna Skotnicka, Virginia Herrera Pérez, Juan Carlos Rubio Romero
057	Balancing assembly lines by regulating exposure to ergonomically hazardous tasks	Rocío Alfaro Pozo, Joaquín Bautista Valhondo
060	Relaxation of the water network design model through penalties for noncompliance with pressures at nodes	Alicia Robles Velasco, María Rodríguez Palero, Juan Carlos Ragel Bonilla, Pablo Cortés
084	Exploring servitisation: A comprehensive review and roadmap for organisational transformation	Yago Zabala, Rudolfo De Castro, Gerusa Giménez
103	Analysis and prediction of unloaded road freight transport in Spain	Miguel Manzanedo Saiz, Roberto Alcalde, Carlos Alonso de Armiño, Belén Alonso Núñez, Nuño Basurto
122	Occupational accident rates among immigrant workers in Spain: A comparative study (2019-2023)	Marta Martín Machuca, Juan Carlos Rubio Romero, María del Carmen Pardo Ferreira
110	Are construction companies prepared for the impacts of climate change? A preliminary assessment	Marta Cruces Correa, Manuel Suárez Cebador, María del Carmen Pardo Ferreira, Juan Carlos Rubio Romero

Poster session 2

Friday, July 4rd - 10:30-11:00

ID	Title	Authors
026	International experiences in the mitigation of foreign ex-change risk in the electricity market: Energy exchange in Southeast Asia	Juan Martínez, Simón Fernández Vázquez, Julián Ramírez, Rafael Rosillo
068	Driving the circular economy: Artificial intelligence's role in waste and emissions reduction across sectors	Beñat Landeta Manzano, Germán Arana Landín, Naiara Uriarte Gallastegi, Iker Laskurain Iturbe, Waleska Sigüenza Tamayo
072	Influence of different aspects of FDI on sustainability in Europe	María Marín Álvarez, María del Carmen Pardo Ferreira, Juan Carlos Rubio Romero
085	Comparing SARSA and Q-learning in reinforcement learning-based vehicle routing	Pelayo González, Pablo Rodríguez, Manuel Luna, Borja Ponte, Raúl Pino
087	Analyzing the risk level of workplaces by simulating motion capture with an exoskeleton suit	Izaskun Álvarez Meaza, Rosa María Río Belver, Unai González Iglesias, Julen Sánchez Eguia, Gaizka Insunza Aranceta
101	Exploring the nexus between innovation and sustainability in SMEs: Trends, and collaborative networks	Willmer Guevara Ramírez, Matías Arancibia, Rosa María Río Belver, Itziar Martínez de Alegria
102	Competency-based models in personnel selection: Trends and further research	Ana López González, Eugenia Babiloni, Lourdes Canós Darós
105	Automatic defect detection on metal parts	Lidia Gallego Ciero, Alicia Robles Velasco, Pablo Cortés, Luis Onieva

Poster session 2

Friday, July 4rd - 10:30-11:00

ID	Title	Authors
108	Value-driven industrial transformation: A methodology for the evaluation of 6 big losses in manufacturing environments from a triple perspective (productive, environmental and economical)	Ane Irazustabarrena, Paula Morella, María Pilar Lambán, Alejandro Raúl Razquin, Inés Eugenia Lanz
117	The resilience reinforcement cycle	Marco Arias Vargas, Raquel Sanchís, Raúl Poler
123	Influence of economic variables on steel prices by country	Miguel Manzanedo Saiz, Roberto Alcalde, Carlos Alonso de Armiño, Belén Alonso Núñez, Nuño Basurto
127	Optimization and spatial accessibility for the location of logistics equipment in the specialty coffee production chain in a region of southern Colombia	Daniel Mauricio Goyes Chaves, Carlos Alberto Arango, Ciro Jaramillo Molina
131	Transforming engineering education with technology: Evaluating an ERP simulator for teaching the funnel theorem and operational efficiency	Carlos Alberto González Almaguer, Monserrat Ramírez Melgarejo, Dagoberto Garza-Núñez, Natalia Frías Reid
137	Review of trends in machine learning applications for quality failure detection in the industry using natural language processing	María Rodríguez Palero, Alicia Robles Velasco, Ana Pegado Bardayo, Pablo Aparicio Ruiz

Organizers



ADINGOR
Asociación para el Desarrollo de
la Ingeniería de Organización



Escuela Técnica Superior de
INGENIERÍA DE SEVILLA



Participants



Junta de Andalucía
Consejería de Universidad,
Investigación e Innovación



cátedra del
agua
EMASESA | US



User: Eventos_ICIEIM

Password: CONFERENCIA.2025

