

XXVII Congreso de Ingeniería de Organización (CIO2023)

# July 6<sup>th</sup>, 9:15-10:30

Supply Chain Management and Logistics – 1			
Roo	Room 0.1 Chair: Alejandro Escudero		
ID	Title	Authors	
23	Sustainable last mile in e- commerce: Identifying innovative solutions	González Romero I, Prado Prado JC	
71	A cuckoo search heuristic to improve a last mile ecommerce problem	Escudero-Santana A, Onieva L, Rodríguez- Palero M, Muñoz-Díaz ML	
80	Cost analysis in last mile logistics: modelling the impact of uncertainty in transport costs	Lorenzo-Espejo A, Aparicio-Ruiz P, Muñuzuri J, Pegado-Bardayo A	
94	Urban light electric vehicle for last mile delivery in low emission areas	Rodríguez-Palero M, Guadix Martín J, Muñoz- Díaz M, Robles-Velasco A	

	Supply Chain Management and Logistics - 2		
Roo		Alfonso de la Fuente	
ID	Title	Authors	
12	Definition of 3D printing parameters by the design of experiments to characterise carbon fibre-reinforced polyamide	Unzueta G, Eguren JA, Esnaola A, Aurrekoetxea J, Sukia I	
56	Application based mobile payments technology selection: A scoping review	Del-Río-Carazo L, Cuenca-Enrique C, Acquila-Natale E, Iglesias- Pradas S, Chaparro- Peláez J, Elvira-Cruz I	
57	Censored Exponential Smoothing for supply chain forecasting	Pedregal DJ, Trapero JR, Holgado E	
89	The Smart Resilience Adviser, an Anticipation Tool powered by Artificial Intelligence	Arias-Vargas M, Sanchis R, Poler R	

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Operations Research, Modelling and Simulation - 1 Room 0.3 Chair: Raúl Poler		
ID	Title	Authors
33	Limitations and opportunities in e- platforms for the additive manufacturing market	De Antón J, Poza D, Villafáñez F, López- Paredes A
43	Investment strategy to properly maintain water networks	Robles-Velasco A, Aparicio-Ruiz P, Cortés P, Onieva L
44	Electricity distribution among users of an energy community: calculation of repartition coefficients under social scenarios	Juanpera M, Domenech B, Ferrer-Martí L, Pastor R
62	Trends in Unsupervised Methodologies for Optimal K-Value Selection in Clustering	Pegado-Bardayo A, Muñuzuri J, Escudero- Santana A, Lorenzo- Espejo A
74	Artificial Intelligence decision systems to support the industrial equipment Manufacturing	Andres B, Mateo-Casali MA, Fiesco JP, Poler R

	Education in Industrial Engineering – 1		
Roo	Room 0.4 Chair: Javier Santos		
ID	Title	Authors	
8	A critical approach to the use of ChatGPT in universities	Ahedo V, Díaz-de la Fuente S, Santos JI, Galán JM	
78	Including Gender Dimension in the Contents of Operations Management Teaching	Lusa A , Peña M, Mas de les Valls E, Olmedo-Torre N	
87	Foundation models-based artificial intelligence in Universities: alternative approaches and application areas	Duran-Heras A, Reina K, Arbáizar JP	

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	Project and Process Management		
Roo	m 0.5	Chair: Javier Pajares	
ID	Title	Authors	
83	Data Interoperability in Collaborative Industry 4.0 European Projects	Mateo-Casalí MA, Alarcon F, Fraile F, Poler R	
39	Exploring Internet of Things (IoT) adoption: drivers, enablers and barriers	Muñoz-Flores CH, Calleja- Sanz G, Olivella-Nadal J	
5	Monte Carlo simulation for project risk prioritization	Acebes F, Curto D, González-Varona JM, Pajares J	
99	The design of the Balanced Scorecard in Healthcare: A Scoping Review	Roselló T, Ribas I, Caro C, Ilzarbe L	

# July 6<sup>th</sup>, 14:30-15:30

Supply Chain Management and Logistics - 3			
Roo	Room 0.1 Chair: Josefa Mula		
ID	Title	Authors	
27	Structuring collaboration in logistics. An Action Research Experience	Núñez Fernández A, García Arca J, Prado Prado JC	
36	Big Data and E-Commerce: future key players for the Urban Last Mile management	Marco-Montes-de-Oca Juan A, Pastrana-Esteban H, Serrano-Pérez M, González-Carreño G	
41	Characterization and strategies for the logistics in the Low Emission Zone in Colombia	Alvarez S, Echavarria J, Ramirez J, Maheut J	
42	Car parking spaces for logistics activities. Is this an interesting alternative for city logistics companies?	Maria Savall-Mañó, Imma Ribas	

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	Supply Chain Management and Logistics – 4		
Roor	n 0.2	Chair: Elvira Maeso	
ID	Title	Authors	
18	Evaluation of Genetic Algorithm on the Multidrop truck-drone logistic problem	Sánchez-Wells D, González-R PL	
29	Comparative Analysis of Cost Structures and Factors of Conveyor Technologies for In-Plant Production Supply	Stache U, Wildraut L	
109	Trends and future research into the integration of procurement transportation and inventory decisions	Moreno J, Mula J, Poler R	

	Production Planning and Control – 1		
Roor	n 0.3	Chair: Raquel Sanchis	
ID	Title	Authors	
7	Barriers to the implementation of total productive maintenance (TPM): a literature review.	Flores B , García J, Hurtado J, García J	
75	Optimizing the Use of machinery by applying Artificial Intelligence	Mateo-Casali MA, Fiesco JP, Andres B, Poler R	
98	Single-Station Unrelated Parallel Machines Scheduling Problem: a case study in a Real Factory	Muñoz-Díaz M-L, Escudero-Santana A, Franco-Álvarez A, Rodríguez-Palero M	
107	Quantitative models for production planning in a lean manufacturing approach under uncertainty	Rojas T, Mula J, Sanchis R	

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	Strategy, Innovation, Networks and Entrepreneurship		
Roo	m 0.4 Ch	air: Luis Isasi-Sánchez	
ID	Title	Authors	
20	Application of the Industry 4.0 maturity model to industrial SME: 6 case studies	Eguren JA, Retegi J, Igartua JI	
30	Pilot project on joint application of artificial intelligence and graphology for suicide prevention	Isasi-Sánchez L, López- Gómez JE, Moreno- Izquierdo R, González- Álvarez JL	
84	Is the impact of Management research predictable through the title? - A BERT model to find a response	Jaca-Madariaga M, Zarrabeitia-Bilbao E, Rio- Belver RM, Ruiz-de-la- Torre A	

Prod	Product Design, Industrial Marketing and Consumer Behaviour		
Room 0.5 Chair: José Manuel Ga		air: José Manuel Galán	
ID	Title	Authors	
31	News and ESG investment criteria. What's behind it?	Pikatza N, Borregán J, Alvarez I, Cilleruelo E	
50	Reducing the total cost of quality through the risk management: manufacturing processes	Costas Gual J, Pastor Climent R, Puche Regaliza JC, Puente García J	
73	Enhancing machinery design through using Artificial Intelligence	Fiesco JP, Mateo-Casali MA, Andres B, Poler R	
105	The impact of digitalization on production management practices: A multiple case study	Colombari R, Berbegal- Mirabent J, Neirotti P	

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### July 6<sup>th</sup>, 15:30-16:30

Supply Chain Management and Logistics - 5			
Roor	Room 0.1 Chair: Faustino Alarcón		
ID	Title	Authors	
72	Quantitative procedure for the redesign of a multiple supply chains based on synergies	Anich N, Mateo-Doll M	
91	An overview of shoring decisions for sustainable and resilient supply chains from a quantitative modelling perspective	Becerra P, Mula J, Sanchis R	
92	Dimensions and challenges to integrate operations strategies into a sustainable and circular supply chain	Aldás D, Mula J, Diaz- Madroñero M	

	Production Planning and Control - 2		
Roo	Room 0.2 Chair: Jose Guadix		
ID	Title	Authors	
59	Heijunka mixed model sequencing problem with no buffers and work overload minimization	Bautista-Valhondo J, Alfaro-Pozo R	
96	Heijunka and Jidoka in Spanish Research. A Systematic Literature Review	Fortuny-Santos J , Ruiz de Arbulo P	
61	The Impact of Electricity Tariffs on Optimal Production Scheduling	Fisco-Compte P, Bullich- Massagué E, Domenech B, Juanpera M, Pastor R, Ranaboldo M	
104	Industrial Energy Cluster Optimization using Flexibility Aggregation	Caprara A, González- Font-de-Rubinat P, Ranaboldo M, Bullich- Massagué E, Aragüés- Peñalba M, Cimmino A	

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	Operations Research, Modelling and Simulation – 2		
Roor	n 0.3 Ch	air: Miguel Ortega-Mier	
ID	Title	Authors	
1	A replication study on prosocial choice	Portolés J, Pereda M	
13	Exploring the Applicability of Benford's Law in Network Science and Graph Theory	Maldonado A , Pereda M, Ortega-Mier M	
24	Order Promising Process Optimization for Hybrid Production Strategy	Esteso A, Alemany MME, Ortiz A, Cruz S	

Education in Industrial Engineering – 2			
Roor	Room 0.4 Chair: Gerusa Giméne		
ID	Title	Authors	
64	Insights on the use of Sentiment Analysis in the context of Higher Education	Reina Sánchez Karen, Arbáizar Gómez Juan Pedro, Duran-Heras Alfonso	
51	Bridging the University-Business gap in Engineering schools: Implementation of a course groupwork in innovation management	Mendonça Tachizawa E, Martín-Rubio I	
38	Educational Innovation Project for the Coordination of Basic Subjects of the Business Administration Department at Multicentre Level using OKR Methodology	Estelles-Miguel S, Ribes- Giner G, Garcia-Sabater JJ, Oltra-Gutierrez JV, Gil- Gomez H	
101	What are PhDs researching on Industry 4.0? A comparison of Brazil and Spain	Fogaça DR, Grijalvo M, Sacomano Neto M	

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Human Resources and Organizational Design		
Roo	m 0.5	Chair: Ruth Carrasco
ID	Title	Authors
15	Teleworking in the industrial sector	Fontaneda I, Prádanos Y, Martínez-Gutierrez S
25	Talent Training Practices in SME Hotels	Ansari E
68	Please don't go! Talent Retention practices in IT SMEs	Torres-Soto J, Fernandez V, Gallardo-Gallardo E
79	Suggested approach to training impact assessment in SMEs	Galleguillos-Pozo R, Rial P

# July 7<sup>th</sup>, 9:30-10:30

Supply Chain Management and Logistics - 6		
Roor	n 0.1	Chair: Gema Calleja
ID	Title	Authors
34	Measuring transport performance: a case study in an agrifood retail company	Vazquez-Noguerol M, Olmedo B, García-Arca J, Prado-Prado JC
93	Normalised data model for cloud collaborative manufacturing: applied to the footwear industry	Reyes J, Mula J, Díaz- Madroñero M, Andres B
108	Analysis of Blockchain Applications in the Supply Chain Field	Ponce E, Mula, J, Peidro D
117	Optimisation and big data to provide digital technologies to supply chain 4.0	Fateh A , Mula J, Diaz- Madroñero M

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Operations Research, Modelling and Simulation – 3		
Rooi	m 0.2 Chair: Aito	r Ruiz de la Torre Acha
ID	Title	Authors
63	Particle Swarm Optimization for multi-reservoir hydropower optimization	Castro Freibott R, García- Sánchez A, González- Santander G, Pita- Romero L, García- Castellano C, Ortega M
97	Human-centered simulation in educational production line for Industry 5.0 ergonomics application	Ruiz-de-la-Torre-Acha A, Borregan-Alvarado J, Guevara-Ramirez W, Pikatza-Gorrotxategi N.
111	Food Banks in a complex reality: Multi-objective optimization of nutritional composition of food baskets	Gil-Figuerola P, Juanpera M, Ferrer-Martí L, Pastor R
115	Robust optimization model solving an annual multiskilled staffing problem for retail industry	Porto AF, Henao CA, Lusa A, Porto RI

Circular Economy		
Roor	n 0.3 Chair: Sim	on Fernandez Vazquez
ID	Title	Authors
6	Linear representation of greenhouse gas emissions along industrial value chains using environmentally extended input–output tables	Retegi J, Ibarra D, Igartua JI
19	Guiding Questions for the Efficient Management of Logistics and Manufacturing Operations in Remanufacturing Systems	Gorroño-Albizu L, Soto- Gordoa M, Justel D, Eguren JA
32	The use of blockchain in the agrifood supply chain	Fernández-Vázquez S, Luna M, Rosillo R, de la Fuente D

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Sustainability, Eco-efficiency and Quality Management		
Roor	n 0.4	Chair: Manel Mateo
ID	Title	Authors
40	A framework for the management of renewable energy communities in a collaborative network context	Ibarra D, Igartua JI, Retegi J
55	Fuzzy logic in the thermal comfort of Mediterranean tertiary buildings	Ragel-Bonilla JC, Aparicio-Ruiz P, Barbadilla-Martín E , Guadix-Martín J
103	Sustainable operations management towards Industry 5.0	Guerrero B , Mula J, Poler R
14	Non-Destructive inspection solutions in the EU industrial sector for sustainable manufacturing	Lario J, Mateos J, Ortiz A





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#### **Posters**

ID	Title	Authors
9	Determining the impact of influencers on the purchasing behavior of higher education students. A case study in a Chilean university	Galleguillos C, Becerra P, Pino A, Véliz I
10	A biased-randomised metaheuristic for the Team Orienteering Arc Routing Problem	Panadero J, Martin X, Juan A
11	Model for measuring the degree of leanness of a company that manufacturers equipament for the hotel, catering and laundry sectors	Navarro I, Eguren JA, Unzueta G
16	A bibliometric analysis of the implications of Servitization in the Circular Economy.	Rodríguez J, Cilleruelo E, Martínez-de-Alegría I, Ruiz de Arbulo P
17	How to Create a Born Global Company? a brief methodological overview for internationalization	Garcés-Bautista JL, Estelles-Miguel S, Peris- Ortiz M
21	Case Study: The Lost Decade in World Trade: Linking disruptive events (CoVid-19 and the Ukraine conflict)	Lario J, Gomez P, Poler R
28	Comparative Analysis of Survival Models for Assessing Risk of Failure in Electrical Installations in the Time- Critical Bio-Production Sector	Llopis A, Fraile F
37	Reinforcement Learning methods for Portfolio Optimization	Espiga F, García A, Ordieres J
45	Assessment model of the degree of implementation of Industry 5.0 in small and medium-sized companies in the metal sector, using AHP and Fuzzy Inference Systems	Perez Bernardo JM, Puente J, León O, Pino R
48	Analysis of thermal comfort in Mediterranean climate buildings using random forest	Aparicio-Ruiz P, Barbadilla-Martín E, Robles-Velasco A, Ragel- Bonilla JC

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49	Tools for Innovative Operations Management and Operations Research Education Based on H5P	García-Castellano C, Ortega-Mier M, Pereda M, Gutiérrez M, García- Sánchez A
52	Marketing on-line OPEX as CAPEX	Martínez-Moya LJ, Ros- McDonnell L, de-la-Fuente MV
53	Analysing the Impact of Religious Pilgrimage Routes through Twitter Sentiment Analysis: A case study	Díaz-de la Fuente S, Ahedo V, Alonso Abad MP, Santos JI, Galán JM
54	Design and operation of energy communities with different objective functions	Téllez Macías AD, Duran Arranz L, Domenech B, Ponsich A
58	Open Data strategy in Competitive Intelligence: analyzing the scientific trends	Garcia-Varona A, Alvarez- Meaza I, Rio-Belver RM, Borregan-Alvarado J
60	Minimax Thermal Load in the Spent Nuclear Fuel Cask Loading Problem	Bautista-Valhondo J, Batet-Miracle L, Mateo- Doll M
65	Evaluating the smartness of mobility in Spanish cities	El-Bied S, Ros-Mcdonnell L, de-la-Fuente MV, Ros- McDonnell D
66	Sensory assessment of wines: development of a unified method in the five Galician wine Protected Designations of Origin	Fernández González AJ, Núñez Fernández A, Prado Prado JC
67	MILP model for a generalized multi- depot vehicle routing problem with multiple pickup and delivery requests	Castro Freibott R, García- Sánchez A, González- Santander G, Pita- Romero L, García- Castellano C, Ortega M
69	The Workforce Scheduling Problem (WSP): a review of the literature	Pérez E, Poler R, Vicens E
70	Genetic Algorithm to Create Bulk Delivery Routes for Multi-compartment Vehicles With Limited Capacities	Comesaña-Benavides JA, Vázquez-Noguerol M, Prado-Prado JC
76	Repair-Reuse-Recycle assisted with Artificial Intelligence: An equipment industry case	Andres B, MA, Fiesco J, Poler R

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77	A novel classification of demand forecasting techniques under a lost- sales context	Trapero JR, Holgado de Frutos E, Pedregal DJ, Babiloni E, Guijarro E
81	Agent Based Walkability Simulation as a City Logistics Key Factor	Martinez-Artero S, de-la- Fuente MV, Ros- McDonnell L, Ros D
82	Carbon footprint savings from free fare public transport policies. The case of Marbella	Maeso-González E , González-Sánchez G, Olmo-Sánchez MI, Solano JF
85	Talent Identification During Expatriation Recruitment in Chinese Multinational Corporations	Shuyi Shen, Fernandez Alarcon V
86	Supplier Selection Process for a Product Acquisition	Andueza S, Lacoste E, Isasi L
88	The facility layout in forward, reverse and bi-directional logistics systems	Vintimilla P, Alarcón F
90	Analysing two editions of a Spanish MOOC on Management Information Systems	Reina Sánchez Karen, Arbáizar Gómez Juan Pedro, Duran-Heras Alfonso
100	Impact of Sensor-based IIoT-related Systems Approach on the Occupational Health and Safety in Spanish Agrifood Industry	Torrecilla-García J, Pardo- Ferreira C, Herrera-Perez V, Rubio-Romero J
112	Simulation and improvement of transhipment decisions in a fast- fashion retail network	Mula J, Sanchis R, De la Torre R, Becerra P
116	Automated guided vehicle task scheduling in dynamic manufacturing environment	Sara Hatami, Xabier A. Martin, Eliana M. González-Neira, Angel A. Juan
118	Deep Learning Analysis Applied to an Innovative UAV-Acoustic Inspection System for Wind Turbines Maintenance	Bernalte Sánchez P, García Márquez F

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