8th edition of the International Conference on Logistics Operations Management:
Revolutionning Supply Chain and Logistics Through Operation Research and Artificial Intelligence

GOL'26

Fez - Morocco

Program

Thursday, 07 May 2026				
08h00-09h00	**Welcome and registration**			
09h00-10h00	Plenary Conference I: ***Prof. Teodor Gabriel Crainic,*** Université du Québec à Montréal, Title: "***Operations Research for Transportation and Logistics Planning***" Session Chair *:* ***Ahmed Alaoui El Hilali***			
10h00-10h30	**Break**			
10h30-12h30	*T1.1 Artificial Intelligence 1* *Chairs:* ***Youssef Meliani F-Z Mhada***	*T1.2 Modelling, simulation and optimization 1* *Chairs:* ***Ruxian Wang & Amina Berahhou***	*T1.3 Blockchain and the future of Smart Ports* *Chairs:* ***Fatima Ouzayd***	*T1.4 Air transport and logistics operations 1* *Chairs:* ***J. H. Ablanedo-Rosas & Khali Abbal***
	Measuring User Engagement Using Web Log Files from an E-Learning System ***El-Mehdi Aqrchal, Naoual Chaouni Benabdellah***	Towards Realistic Flow Shop Scheduling: Johnson's Algorithm and the Incorporation of Human Factors ***Hajar Nassib, Abdelhamid Zaki, Omar Fanidi***	A Double Machine Learning Approach to Estimate the Operational Efficiency of Container Ports ***Jose Humberto Ablanedo-Rosas***	*Aviation Workforce 4.0: Competences for a Sustainable and Digitalized Sector* ***Adina-Roxana Munteanu, Sorin Eugen Zaharia, Adina Petruta Pavel***
	Industry 5.0: between theory and practice ***Najwa Kamal, Wafaa Dachry, Hassan Gziri***	Modeling and Optimization of Edge Server Location for IoT-Based Urban Traffic Control ***Salma Ibadissen, Mohammed El Amrani***	Automated Smart Contract Generation Using Multi-Level Finite State Machines: A Service Agreement Case Study ***Maxence Lambard, Cyrille Bertelle, Claude Duvallet***	From Isolation to Integration: The Impact of Airport Management Groups on the Performance of Eastern European Airports ***Sorin Eugen Zaharia, Adina-Roxana Munteanu, Adina Petruta Pavel***
	A multi-agent decision support system for integrated product and downstream supply chain design optimization ***Hafssa Bouidmar, Oulfa Labbi, Abdeslam Ahmadi***	A simulation model to schedule a remanufacturing system with returns of varying quality ***Salma Abid***	Enhancing Maritime Logistics with Blockchain: Securing and Tracing Dangerous Goods in Smart Ports ***Rim Abdallah, Cyrille Bertelle, Claude Duvallet, Jérome Besancenot, Frédéric Gilletta***	Major trends in the development of airports from Central and Eastern Europe between 2010 and 2024 ***Sorin Eugen Zaharia, Tudor Costel Bulgaru, Adina Petruta Pavel***
	Balancing Service and Inventory in DDMRP through SAC-Based Reinforcement Learning ***Hamza Lahrizi, Hicham Sarir***	Discrete Particle Swarm Optimization algorithm applied to the Multi-Level Multi-Capacitated Facility Location Problem ***Khalil Abbal, Mohammed El Amrani, Youssef Benadada***	Simulation of miner pool behaviour in blockchains using a multi-agent system ***Aicha Ferjani, Kerne Niels, Duvallet Claude, Bertelle Cyrille***	Agent-Based Simulation for the Analysis and Improvement of School Evacuation ***Luís Pinto Ferreira, Gonçalo Lobo, André Ferreira, Paulo Ávila, Hélio Castro, Marcelo Henriques***
12h30-14h15	**Break**			

N.B. Cells with a blue background correspond to remote presentations.

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14h30-15h30	Plenary Conference: ***Prof. Gheith Abandah***, University of Jordan Title: "***Unlocking the Power of Large Language Models: Architectures, Trends, and Arabic NLP Applications***" Session Chair : ***Claude Duvallet***		
15h30-16h00	**The Official Opening**		
16h00-16h30	**Break**		
16h30-19h00	*Artificial Intelligence and Supply Chain* *Chairs:* ***Aicha Ferjani & Fatima Ouzayd***	*Emerging trends, challenges and innovations in transportation and logistics* *Chairs:* ***T.G. Crainic & Amine Berqia***	*AI-Driven Trade Facilitation and Smart Transport Systems for Resilient Supply Chains* *Chairs:* ***Claude Duvallet & Mohammed El Amrani***
	Artificial Intelligence Adoption in Industrial Supply Chains: A Systematic Literature Review ***Ouafa Barakat, Nouhayla Bouanba***	Integrating Routing and Three-Dimensional Loading in Heterogeneous Fleet VRPs: A Structured Synthesis and Research Directions ***Youssef Meliani, Evren Sahin***	Enhancing Traceability and Compliance in Air Transport of Dangerous Goods through Distributed Ledger Technology: Policy Perspectives from Morocco ***Fayssal Moukafi, Hiba Belgaid, Amine Dafir***
	Artificial Intelligence in Pharmaceutical Warehousing: Trends and Future Directions ***Blessing Takawira, Joash Mageto***	On-Demand Last-Mile Delivery with Occasional Drivers: A Bi-Level Multi-Period Optimization Approach ***Maria Elena Bruni, Sara Khodaparasti***	Advanced AI and optimization techniques for managing smart water distribution networks ***Radia Hajji, Fatima El Khoukhi***
	Generative Artificial Intelligence, Development of (New) Green Products in the Fuzzy Front End and ESG of Supply Chains in the Creative Industry in a Global South Economy ***Selma Oliveira, Jennyfer M Ferreira***	Energy Transition for Small and Medium-Sized Enterprises in Quebec, Canada: Context and Solutions ***Emma Lavoie, Nadia Lehoux, Louis Gosselin***	Towards a Circular Supply Chain 5.0: A Conceptual Framework Integrating Circular Economy, Intertwined Supply Networks, and Industry 5.0 ***Sanae Tissir, Abdelkabir Charkaoui, Khadija Echefaj, Anass Cherrafi***
	What You Have Is What You Get? Authentic Environmental, Social And Governance Information To Scale Green Innovations In Responsible Supply Chain In A Global South Economy ***João Pedro Passos da Silva, Lucas Motta, Selma Oliveira***	The Capacity Supplier Selection Problem ***Roberto Bargetto, Teodor Gabriel Crainic, Guido Perboli, Walter Rei***	Towards Improved Decision Tree interpretability via Large Language Models: A Case Study in Motorcycle Accident Severity **Ilyas Modni, Maissae Haddouchi, Zoubida Chorfi, Abdelaziz Berrado**
	Supply Chain 5.0 for small and medium-sized enterprises (SMEs): A Bibliometric Analysis ***Malebo Suzan Mulaudzi, Blessing Takawira***	Sustainable Performance Measurement Framework for Ports 4.0 ***Mame Gningue, Youssef Tliche***	Adaptive Mine Supply Chain Planning under Geological Uncertainty: A POMDP Framework for Sequential Decision-Making ***Hamza Khalifi, Abdellatif ElGhali, Yassine Taha, Mostafa Benzaazoua, Jef Caers***

Friday, 08 May 2026

08h30-09h30	Plenary Conference: **Prof. Dmitry Ivanov**, Berlin School of Economics and Law Title: "**Supply Chain Viability and Digital Ecosystems**" Session Chair: ***Teodor Gabriel Crainic***		
09h30-11h00	*Sustainable development* *Chairs:* ***Fatima El Khoukhi & Amina Berahhou***	*Planning and scheduling* *Chairs:* ***Mame Gningue & François Marmier***	*Artificial Intelligence 2* *Chairs:* ***M. Oudani & Khali Abbal***
	Prioritizing Performance Criteria in Sustainable Intelligent Logistics: A SWARA Approach Integrating Industry 5.0, Circular Economy, and Operational Excellence ***Saad Falih, Khadija Echefaj, Anas Cherrafi, Abdelkabir Charkaoui***	Developing Key Performance Indicators for Port Waste Management: A Balanced Scorecard Approach ***Anass Hamraoui, Hamid Ech Cheikh, Abdessamad Douraid, Ahmed Loukili, Sâad Lissane Elhaq, Mohammed Chaoui***	Controlling Supply Chain Disruptions through the Democratization of Artificial Intelligence ***Reda Saib, My Abdelouhab Salahddine***
	Trade-offs and Synergies: Integrating Resilience and Sustainability Metrics in Agrifood Supply Chains ***Vivekanandhan Viswanathan, Daniel Menschulin, Salma Mousannif, Christian Kruse, Fabian Behrendt***	Forecast-Driven Optimization Framework for Container Terminal Planning ***Soltan Bouhachi, Fatima Ouzayd, Hamid Ech Cheikh***	Empowering Inclusive Digital Transformation in Industry 4.0: A Multimodal RAG-based Chatbot System for Hybrid Workforce Integration ***Mohamed Hedi Riahi, Nardine Hanfi, Selim Rachdi***
	A dynamic game model of green investment under cap and trade: An initial framework in the Moroccan context ***Fatima Zahra El Garraoui, Abdelkabir Charkaoui, Khadija Echefaj, Anass Cherrafi***	A Mixed-Integer Programming Model for Greenhouse Production Planning ***Éliane Audrey Nguemaleu Tchangoue, Nadia Lehoux, Louis Gosselin***	Lean management and AI tools: a new hybrid approach to banish waste and create wealth in Nursing, Healthcare education and services ***Salima Hammadi, Mohamed Boulfia, Ahmed El Hilali Alaoui***
11h00-11h30	**Break**		
11h30-13h30	*Modelling, simulation and optimization 2* *Chairs:* ***Mbanya Roch & Mohammed El Amrani***	*Joint Optimization of Production and Distribution* *Chairs:* ***Maria Elena Bruni & Mustapha Oudani***	*Project and risk management* *Chairs:* ***Ioana Filipas & Kadija Mhada***
	A Review of Constraint Programming Applications to Integrated Scheduling and Routing Problems ***Anass El Yaakoubi***	Warehouse Features and Activities as the Cornerstone in both the Service and Manufacturing Supply Chain Sectors in the Jordan Market ***Moh'd Anwer AL-Shboul***	Structured Risk Matrix Assessment of UAV Threats in Airport Vicinity ***Florin Daniel Simion, Sorin Eugen Zaharia***
	Evaluation and Enhancement of Factory Evacuation Procedures Using Simulation ***Tiago Texeira, André Ferreira, Paulo Ávila, Olena Ostrohliad, Luís Pinto Ferreira, Alzira Mota***	A Stochastic Joint Replenishment Problem under Obsolescence ***Ricardo Afonso, Pedro Godinho, João Paulo Costa***	Bridging the Gaps: Project Delivery Systems and Stakeholder Dynamics in the Quebec Construction Supply Chain ***Basma Ben Mahmoud, Nadia Lehoux, Pierre Blanchet, Gabriel Jobidon***
	Personalized Assignment of Operators to Workstations in Industry 5.0: A TOPSIS-Based Approach — Case Study in an Automotive Assembly Line ***Houda Lahyani, Mariem Bouri, Abdelfettah Sedqui***	*Blockchain-enabled Consent-Based Data Governance for Smart Territories* ***Mongetro Goint, Cyrille Bertelle, Duvallet Claude***	Risk Management and Improvement of Logistics Performance: A Study of the Order-to-Cash Process in Hydrocarbon Distribution ***I. Moussaoui, Y. Fakhreddine El Bahi, A. Lachheb, R. Saadani, M. Rahmoune***
	How Can AR Enhance Maintenance Practices: An Interview Study ***Zineb Aktef, Anass Cherrafi, Khadija Echefaj***		Quality management system in European projects **Ioana Filipas, François Marmier, Jean-Louis Michalak**
14h00 -15h00	**Break**		
15h15-16h00	Plenary Conference: **Mr. Lorenzo Canonne, Hexaly, France** Title: **"Hexaly, a new kind of hybrid optimization solve"**		
16h00-19h00	**Sight-seeing tour, visit to the medina of Fez**		
19h00-23h00	***Gala Dinner*** **Ryad Salam Fes**		

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Saturday, 09 May 2026

08h30-09h30	Plenary Conference: ***Prof. Abdelaziz Berrado***, Ecole Mohammadia d'Ingénieurs (EMI), Morroco Title: ***"The Quest for Gray-Box Models: Reconciling Predictive Power with Decision Intelligence"*** Session Chair: ***Sorin Eugen Zaharia***		
09h30-09h45	**Break**		
09h45-11h15	*From Data to Decisions: Adaptive Supply-Chain Management through Simulation, Data Analytics and Digital Twins* *Chair: **Jawad Abrache & Mustapha Oudani***	*Air transport and logistics operations 2* *Chairs: **F-Z Mhada & B. Ben Mahmoud***	*Operational Research* *Chairs: **François Marmier Ahmed ElHilali Alaoui***
	Optimal Subscribed Power Prediction for an Electric Vehicle Charging Station Powered by Grid and Solar Energy ***R. Gobinet, M. Oudani, A. Charki, A.Makhoukh, A. Redouane***	Digital Twin-Driven Real-Time Decision Support in Maritime Transport: A Literature Review and Analytical Study of Emerging Big Data Paradigms ***Hamza El Mastik, Fatima El Khoukhi***	Multi-Compartment Vehicle Routing Problem for Intelligent Collection of Hospital Waste ***Yousra Bouleft, Ahmed ElHilali Alaoui***
	Towards Intelligent Public Logistics Governance in Morocco: Integrating Internal Audit and Artificial Intelligence into an Applied Conceptual Model ***Khaoula El Assassi, Redouan Daafi***	Reliability Analysis of Remote Air Traffic Control Towers Under Blackout Scenarios - A Case Study ***George Tivadar, Sorin Zaharia***	Hybrid GRASP Approach for Energy-Efficient Flow Shop Production Scheduling in Industry 4.0 ***Hafsa Mimouni, Abdelilah Jalid, Said Aqil***
	Exploring Digital Twin Applications and Maturity in Supply Chain Management: A Systematic Review ***Hanane Ouamer, Mouhsene Fri, Fayçal Fedouaki***	Ground Handling in the Era of Aviation 4.0: A Digitalisation Framework for Smart Airports ***Maria-Alexandra Stănilă, Sorin Eugen Zaharia, Adina-Roxana Munteanu***	A proposition of a Hybrid Machine Learning Framework for Aircraft Spare Parts Forecasting and Inventory Optimization ***Badi Badr-eddine, O. Bouazaoui, I.Lagrat, M. Ouhdan, D. Serrou***
11h15-13h15	*Optimization and innovative Decision support tools for Managing Smart and Sustainable Supply Chain in Smart Cities* *Chairs: **Moh'd Anwer AL-Shboul & M. ElAmrani***	*Intelligent Multi-Agent Systems and Metaheuristics for Logistics Management* *Chairs: **Aziz Berrado & Mongetro Goint***	*Logistics Operations Management in Education* *Chairs: **Blessing Takawira & Abdelmjid Hilali***
	Performance Contributions of Traditional Lean and Lean-Smart in Manufacturing: A Metrics-Based Synthesis ***A. Rachidi, D. Serrou, H. Mharzi, R. El Gomri***	Multi-Agent System for Supply Chain Management ***Manel Neffati, Murat Afsar, Leila Merghem-Boulahia***	The Couscous Game: An Academic Case Study on Advancing Gamification in Operations and Supply Chain Management Education ***Jawad Abrache***
	An Exact Solution for the Multi-Compartment Multi-Product Vehicle Routing Problem: A Case Study from a Tunisian Transport Company ***Lina Becha, Kammoun Manel, Loukil Taicir***	Evaluating the Tribal Intelligent Evolution Optimization (TIEO) for travel route planning: a case study of the Traveling Salesman Problem ***Nguyen Trong Hien Ton***	Rating-Driven Lexicon Mining for VR Learning Feedback ***Lamyae Oulad-Ali, Naoual Chaouni Benabdellah***
	Optimizing Airport Security Operations through AI-Driven Face Recognition: An INTERPOL-Integrated System for Passenger Flow Management ***Mohamed Hedi Riahi, Sarra Lachheb, Mohamed Iyed Lagha***	New clustering methods and hybridization with ACO algorithm for Energy Minimization Vehicle Routing Optimisation ***Nezha Jaaifi, Majda Fikri***	Cuckoo Search Algorithm for the Bi-objective Green Dynamic Vehicle Routing Problem in closed loop ***Amina Berahhou, Youssef Benadada***
	Artificial Intelligence in Regulatory Compliance: Comparative Analysis of Benefits and Challenges ***Georges Bou Ghantous***	Towards data-driven economic intelligence to optimize logistics competitiveness in the age of artificial intelligence ***Hiba Belgaid, Fayssal Moukafi, Amine Dafir***	
13h00	***Conference closes***		