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Autore	Dassisti Michele
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Altri autori (Persone)	MadaniKurosh PanettoHerve
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Livello bibliografico	Monografia
Nota di contenuto	Main Event: Multi-Agent Deep Q-Network with Layer-Based Communication Channel for Autonomous Internal Logistics Vehicle Scheduling in Smart Manufacturing -- Digital Twin Data Broker with Assisted Mapping into a Knowledge Base -- An Out-of-Sample Clustering Ensemble Method for Defect Detection and Classification in Metal Additive Manufacturing -- Advanced Process Monitoring and OEE Metrics: Leveraging AASs for Efficiency -- Obsolescence Forecasting of

Intel Processors: A Transformers Approach -- Machine Learning Tool for Yield Maximization in Cream Cheese Production -- Comparative Evaluation of Irregular Shape Strip-Packing Algorithms -- An Inventory Management Support Tool Through Indirect Q-value Estimation: A Combined Optimization and Forecasting Approach -- Multiscale Clustering to Improve Anomaly Detection in Nuclear Equipments -- Clustering Analysis for Forecasting Medicine Consumption -- A Decision Support System of the Configuration of a Supermarket in a Components Company for the Automotive Industry -- A Distributed Framework for Cooperative Scheduling of Production, Transportation, and Maintenance Using Multi-Agent Systems -- The Role of Actor's Creative Self-Efficacy in AI Enabled Value Creation -- Building Realistic Environment from Computer Vision Approach Applied to Manufacturing Simulation in the Digital Twin Context -- Towards a Process-Based Industry 5.0 Maturity Model: A Feasibility Study in Supply Chain -- A Multi-Objective Genetic Algorithm Approach for Multi-Component Products Recovery and Remanufacturing Planning -- Reinforcement Learning for Optimizing Routing in Production Supply of Matrix Production Systems -- An Innovative Fault Detection Robotic Tool for Overhead Cranes in Industries: Magnetic Wheel Modelling and Experimental Validation -- Current Trends and Future Challenges to Put Circular Manufacturing in Practice -- Enhancing Human – Robot Collaboration in the Industry 5.0 -- Framework with Physics-Informed Neural Networks: Application to Collision Detection -- AI-Driven Smart Air Conditioning System for a Sustainable and Energy-Efficient Industrial Future -- A Framework for Resilient Integration of Industry 4.0 Components into Production Systems -- A Reinforcement Learning Algorithm for Dynamic Job Shop Scheduling -- A Blockchain-Powered Framework for Traceable and Secure Pharmaceutical Delivery with Crowdsourced Logistics -- A Comprehensive Framework Integrating ML, Automation Pyramid, and KPIs for Industry 5.0 -- A Novel Pipeline for Data Management and Analysis that Integrates Data Lakehouse Architecture into the Aeronautics Industry -- Multi-Agent Path Planning for Logistics Cargo Environment Using LSTM Based Reinforcement Learning -- Unleashing the Potential of Agility, Resilience and Business Continuity: A Systematic Literature Review -- Accelerating Industry 4.0 and 5.0: The Potential of Generative Artificial Intelligence -- Last-Mile Delivery Optimization Using Mixed Electric Vehicles, UAVs and Full Truck Delivery Based on Artificial Intelligence Algorithms -- Evaluation of Intermodal Transport Routes: Environment and Biodiversity Perspectives -- Optimizing Internal Logistics using Automated Guided Vehicles: An Evaluation of Heuristic Approaches -- Layout Optimization Strategy Based on Three-Stage Cutting Pattern -- On Capability Needs for AI Utilization in Innovation Networks: Critical Literature Review -- Towards the Automation of the Product Definition Process for Design-to-Order Manufacturing Systems -- Stockyard Planning and Optimization Using Intelligent Search -- Enabling Decentralized Collaboration Among Transporters through an Optimizing Trading Network for Transport Orders -- Forecasting Multivariate Time Series with Trend and Seasonality: A Random Forest Approach -- Real-Time Bearing Health Monitoring Using Diffusion-Based Spectral Analysis: A Self-Adaptive Approach to Predictive Maintenance -- The Impact of Logistics Performance on the Convergence of Economic Growth in the Countries of the World -- A Framework for Ontology-Based Engineering Systems: Advances and Open Questions about Knowledge Capture and Use in Aerospace Manufacturing -- Leveraging Large Language Models for Supply Chain Management Optimization: A Case Study -- Boosting Governance-Centric Digital Product Passports

Through Traceability in Footwear Industry -- An Improved Hybrid Recommendation Algorithm for Vehicle-Cargo Matching in the Logistics -- E-Waste Collection Under Recycling Hub Demand and Partial Information: The Benchmark Solution in a Pilot Case -- Improved Package Orientation Estimation Using RFID Signal Analysis with Machine Learning -- Contribution of Fuzzy-Possibility Approach to Assessing the Complexity Level of IT-Systems Design -- Optimization of Resource Allocation and Distribution in Industrial Supply Chains and Logistics Networks: A Hybrid Approach based on Genetic Algorithm and Game-Theoretic Analysis -- Integrating Digitalization and Sustainability: An Innovative Approach to Assess Digitainability in Manufacturing -- Towards a Human-Centric Industry 5.0: Exploring Team Roles to Improve Human-Machine Collaboration -- An Ontology Framework for Human-Robot Interoperability in Dynamic Construction Environments -- Training Operator in VR: A Scalable Solution for the Creation of VR Training Scenes -- A Novel Model for Multi-Robot Task Assignment in Smart Warehouses. 18th International Workshop on Enterprise Integration, Interoperability and Networking: Human-Centric Smart Manufacturing: A Framework Utilizing Digital Twins and Cyber-Physical Production Systems (CPPS) -- Integrating Knowledge and Data-Driven Artificial Intelligence for Decisional Enterprise Interoperability -- Cognition in Digital Twins for Cyber-Physical Systems and Humans: Where and Why -- Challenges in Composite Digital Twin Models and their Impact on Interoperability -- Research on the Construction Method of Production Equipment Operation Management and Control Information Model Based on Knowledge Graph. Special Session on Industrial AI at the Edge: Digital Twin Model for Resource-Constrained Power System Maintenance Activities -- Microcontroller Based Network for Industrial Edge AI -- Impact of Real-Time Linux for Industrial Edge AI.

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#### Sommario/riassunto

This two-volume set CCIS 2372-2373 constitutes the proceedings of the 5th International Conference on Innovative Intelligent Industrial Production and Logistics, IN4PL 2024, held in Porto, Portugal, during November 21–22, 2024. The total of 15 full papers, along with 38 short papers, presented together in this book was carefully reviewed and selected from 76 submissions. This conference focuses on research and development involving innovative methods, software and hardware, whereby intelligent systems are applied to industrial production and logistics. This is currently related to the concept of industry 5.0 - an expression the new wave that extends the trend towards automation and data exchange in manufacturing technologies and processes – including cyber-physical systems, the industrial internet of things, industrial robotics, cloud computing, cognitive computing and artificial intelligence - towards the new role of human resources cooperating with these technologies.

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