

1. Record Nr.	UNINA9910886996503321
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Titolo	Advances in Production Management Systems. Production Management Systems for Volatile, Uncertain, Complex, and Ambiguous Environments : 43rd IFIP WG 5.7 International Conference, APMS 2024, Chemnitz, Germany, September 8-12, 2024, Proceedings, Part IV // edited by Matthias Thürer, Ralph Riedel, Gregor von Cieminski, David Romero
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-71633-7
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (488 pages)
Collana	IFIP Advances in Information and Communication Technology, , 1868-422X ; ; 731
Altri autori (Persone)	RiedelRalph Von CieminskiGregor RomeroDavid
Disciplina	621.39 004.6
Soggetti	Computer engineering Computer networks Computer Engineering and Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	-- Digital Transformation Approaches in Production and Management. -- Leveraging Sentiment Analysis and Reporting for Re-Designing Business Processes using Large Language Models: A SentiProMo Case Study in Airline Check-In Processes. -- Development of a Framework for Data-Supported Personas. -- Fuzzy Maturity Model for Transformative Procurement Readiness: Procurement 4.0 perspective. -- Guiding Process Mining Projects with the IPMM Framework: A Case Study with a German Manufacturer. -- Assessing Additive Manufacturing and Digital Inventory Ecosystem in the Oil & Gas Context. -- Unlocking the potential of blockchain in road freight transportation operations. -- Digital Transformation Towards Human-Centricity: A Systematic Literature Review. -- Literature Review on the Current State-of-the-Art in Research and Technological Advancements in the Field of Machine Learning applied to Predictive Maintenance. --

Coordinating Digital Transformation: Exploring IT Organizational Adaptations in International Manufacturing Networks. -- Building Digital Capabilities in Manufacturing SMEs. -- Dashboard Development for the Quality Department of a Company from the Automotive Industry. -- Digitalizing Smallholder Farmer Agri-Food Supply Chains: A Case Study from a Developing Economy. -- Let them eat data – a concept that allows us to share data from farm to fork (and back to the farm). -- Simplifying data analysis: A visualization framework and practical application for complex BEV data. -- Integrating AI with lean manufacturing in the context of industry 4.0/5.0: Current Trends and Applications. -- New Horizons for Intelligent Manufacturing Systems with IoT, AI, and Digital Twins. -- Dynamic pricing for fashion supply chain with blockchain supported value authentication. -- An Explorative Study of AI Applications in Composite Material Extrusion Additive Manufacturing. -- Explainable Artificial Intelligence in Manufacturing Operations: a bibliometric analysis. -- Pre-Post Analysis on Multi-Skill Development using Flow Line Data at Expressway Service Area Facilities. -- Human – Data Analytics Interaction through Voice Assistance in Electric Vehicle’s Battery Testing. -- Towards a Maturity Model for Intelligent Digital Twins in Manufacturing. -- Information Modeling for Data-driven Digital Twin Simulation: Insights from Case Studies of Port Logistics and Urban Traffic Systems. -- Lenses on Data: Toward an Application Perspective on Data in Manufacturing. -- A Methodology for Identification of Reconfigurability Enablers and Application in a Manufacturing System. . -Computer Vision-based Digital Twin and Digital Services for Dynamic Production and Logistics Environment. -- Digital Twin-driven Reinforcement Learning for Dynamic Path Planning of AGV Systems. -- Instance Segmentation and Digital Twin Use Case for WIP Tracking in Heavy Industry. -- An Authoring Tool for Mixed Reality Interfaces for Digital Twins in Manufacturing. -- Advanced Time Block Analysis for Manual Assembly Tasks in Manufacturing through Machine Learning Approaches. -- Digital Twins (DT) applied to the customization of 3D printed Scara robots using intelligent manufacturing. -- Centering on humans - Intersectionality in vision systems for human order picking. -- Graph-to-sequence Approach for Job shop Scheduling Problem. -- Product-centric Simulation for Proactive Evaluation of Production Plan in Shipyard. -- A Mobile Air-Purification Device and Digital Twin for Managing Hazardous Gases at Industrial Sites.

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## Sommario/riassunto

The six-volume set IFIP AICT 728-729 constitutes the refereed proceedings of the 43rd IFIP WG 5.7 International Conference on Advances in Production Management Systems, APMS 2024, held in Chemnitz, Germany, during September 8–12, 2024. The 201 full papers presented together were carefully reviewed and selected from 224 submissions. The APMS 2024 conference proceedings are organized into six volumes, covering a large spectrum of research addressing the overall topic of the conference “Production Management Systems for Volatile, Uncertain, Complex, and Ambiguous Environments”. Part I: advancing eco-efficient and circular industrial practices; barriers and challenges for transition towards circular and sustainable production processes and servitized business models; implementing the EU green deal: challenges and solutions for a sustainable supply chain; risk analysis and sustainability in an uncertain system in a digital era. Part II: smart and sustainable supply chain management in the society 5.0 era; human-centred manufacturing and logistics systems design and management for the operator 5.0; inclusive work systems design: applying technology to accommodate individual workers’ needs; evolving workforce skills and competencies for industry 5.0;

experiential learning in engineering education. Part III: lean thinking models for operational excellence and sustainability in the industry 4.0 era; human in command – operator 4.0/5.0 in the age of AI and robotic systems; hybrid intelligence – decision-making for AI-enabled industry 5.0; mechanism design for smart and sustainable supply chains. Part IV: digital transformation approaches in production and management; new horizons for intelligent manufacturing systems with IoT, AI, and digital twins. Part V: smart manufacturing assets as drivers for the twin transition towards green and digital business; engineering and managing AI for advances in asset lifecycle and maintenance management; transforming engineer-to-Order projects, supply chains, and systems in turbulent times; methods and tools to achieve the digital and sustainable servitization of manufacturing companies; open knowledge networks for smart manufacturing; applications of artificial intelligence in manufacturing; intralogistics. Part VI: modelling supply chain and production systems; resilience management in supply chains; digital twin concepts in production and services; optimization; additive manufacturing; advances in production management systems.

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