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Nota di contenuto	-- Smart Manufacturing Assets as Drivers for the Twin Transition towards Green and Digital Business. -- From Vineyard to Smart Factory: The case for a Digital Innovation Hub in the Atacama Desert. -- Construction of a Demonstrator for Artificial Intelligence-supported, automated Dismantling of Battery Systems. -- Life Cycle Analysis for the concept design of a Smart Mobile Factory (SMF) for infrastructure construction projects. -- Exploring Agile Methods Application in Manufacturing. -- Optimization of Reconfigurable Manufacturing Systems Configuration using Constraint Programming. -- Key factors for sustainability along the lifecycle of smart Product Service Systems. . -Engineering and managing AI for advances in asset lifecycle and maintenance management. -- Integrating Machine and Quality Data for Predictive Maintenance in Manufacturing System. -- Adoption of AI-based systems in industrial maintenance: empirical evidences from an action research in the maintenance service business. .-Transforming Engineer-to-Order Projects, Supply Chains, and Systems in Turbulent Times. -- Exploring the Hydrogen Transition within the Maritime Value Chains. -- Application of Circular strategies for ETO products. -- Yard

Logistics: Framework and Classification of Yard Types. -- Methods and Tools to Achieve the Digital and Sustainable Servitization of Manufacturing Companies. -- Maturity Models for Servitization: A Systematic Literature Review. -- Towards Human-Centric Digital Services: A Development Framework. -- Quantitative assessment of Product-Service System sustainability: a literature review. -- Navigating the Shift: From Traditional Sales to Product- as-a-Service (PaaS). -- Transforming a new-build factory into a service operations workshop: A PDCA approach to change management in industrial servitization. -- Navigating Lifecycle Management Models: Testing of a lifecycle management framework for Product-Service Systems. -- Asset lifecycle management and digital servitization: A case study in machining. -- Open Knowledge Networks for Smart Manufacturing. -- Open Knowledge Networks for Smart Manufacturing. -- An Introduction to Machine Learning Lifecycle Ontology and its Applications. -- Open Manufacturing Capability Network Supported by Formal Ontologies. -- Open Data Framework for Energy Management and ISO certification in Smart Manufacturing Systems. -- Applications of Artificial Intelligence in Manufacturing. -- Anomaly Detection in a Production Line: Statistical Learning Approach and Industrial Application. -- Leveraging LLMs for Information Extraction in Manufacturing. -- Development of Automated Negotiation Models for Suppliers using Reinforcement Learning. -- Robust Novel Defect Detection with Neuro-symbolic AI. -- Exploring the Intersection of Artificial Intelligence and Machine Learning in Supply Chain Management: A Structured Literature Review. -- Comparison of bipartite graph community detection algorithms for reducing variant diversity in production planning and control. -- Vibration-Based Operating Status Monitoring of a Production Line with Low-Cost IoT Devices. -- Intralogistics. -- A Simulation Study For Integrating Library Material Handling with Autonomous Mobile Robots. -- Dynamic multi-objective opti-state decision-making method for intermittent synchronized production operation system. -- Planning the tasks of an autonomous mobile robot fleet for internal logistics of production systems. -- Model-based system engineering approach to design customized puzzle-based movable rack systems.

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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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