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Collana	Lecture Notes in Networks and Systems, , 2367-3389 ; ; 745
Disciplina	670.427
Soggetti	Automatic control
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Arduino-based Machine Learning Approach for CNC Machine Predictive Maintenance -- Grey Relational Analysis vs. Response Surface Methodology for the prediction of the best joint strength in hybrid welding of TWIP/DP steels -- Demonstrating the potentials of Digital Twin in Manufacturing: an Axiomatic Design-based application for Engineering Education -- Industry 4.0 Technologies and Sustainable Development Goals (SDGs): Covered Publications and Ranking -- A Framework for Digital Factory Planning and validation with Virtual and Augmented Reality: An automotive case study -- Projected augmented reality for industrial design: challenges and opportunities -- Training support with Augmented Reality for Machine Setup: A Case Study in the Process Industry -- Assessing the implementation of a smart cart in a supermarket using a simulation model -- The human factor and the resilience of manufacturing processes: A case study of pharmaceutical

process toward Industry 5.0 -- Implementation of Model-Based Definition-Case of Manufacturing Industry in Finland -- Development of an AR-based Application for Training of Warehouse Operators -- Assessing the effect of infill strategies on hardness properties of cuboidal parts printed with wire and arc additive manufacturing -- Digital twin application for dynamic task allocation -- A Digital Twin-based approach for Emotion Recognition in Human-Robot Collaboration -- eal-time color detection for automated production lines using CNN-based machine learning -- Exploring the Link between Strategy and Smart Manufacturing Adoption: A Study in the Automotive Industry -- Knowledge-based maintenance management system of compressed air system -- Industry 4.0 and Policies: A classification -- Manufacturing Execution System in Industry 4.0 era: from implementation to impacts on job design -- Toward homecare logistics 5.0: a systematic literature review -- Industry 5.0. The road to sustainability -- Collective System Design and Industry 5.0: building community, resilience, and sustainability at Purdue University Fort Wayne -- The efficiency of Italian hospitals using Data Envelopment Analysis (DEA) and Classification Tree -- A process-based taxonomy of medical devices for clinical pathways design and innovation -- Towards a knowledge-based Decision Support System for the management of Type 2 diabetic patients -- A genetic algorithm approach for medical resident scheduling in Austria -- Covid-19 pandemic impacts and long-term supply strategies of pharmaceutical manufacturers -- Modularity Effect on the Manufacturing Lead Time of Assembly Processes -- Decertification: evidence from Italian SMEs -- Decarbonizing Industrial Logistics through a GIS-based Approach for identifying Pareto-optimal combined Road-Rail Transport Routes -- Servitization opportunities for improving sustainability in the steel industry -- The ABC of ecological sustainability in C-parts management. A maturity model for the evaluation of sustainability in C-parts management -- From Waste to Resource: A Patent Classification Analysis for End of Life Mosquito Nets Alternative Uses Identification -- Is digitalization making agroindustry more circular? A SWOT-AHP analysis -- Pilot Scale Tannin Extraction from Chestnut Wood Waste using Hydrodynamic Cavitation -- Environmental assessment of the introduction of digital technologies in the building industry: a literature study -- A Systematic Review of Factors Considered for Sustainable Product Design -- Fluency of stimuli comparing two different representation forms: Image and Real product -- User experience-based perception of the advantages of an adaptable product through a promotional video visualization -- Optimization of the FRESH 3D printing method applied to alginate – cellulose-based hydrogels -- Assessing the viscosity of alginate – cellulose-based hydrogels: a comparison among different type of solutes, mediums culture, and gelatin influence -- Evaluation of Bioprinting Process by RSM Training -- Graded lattice structures for biodegradable temporary implants: computational evaluation with two unit cell types -- Mechanical behavior of novel bio composite sandwich structures under quasi-static compressive loading condition -- Differentiating Additive and Traditional Manufacturing Processes through Unsupervised Learning and Image Processing -- Additive manufacturing for soft electromagnetic robots: experimental study to reduce vibration -- Digitisation for sustainable water supply systems: the case of optimal pressure management -- A combined analytical-numerical approach to evaluate the efficiency of cycloidal speed reducers -- Numerical investigation of the mechanical performance of multilayer composite laminates under low velocity impact loading

condition -- A finite element level-set approach for optimizing the topology of complete disc replacement in the lumbar spine -- A FEM-based Study on the Impact of the Shot Peening Process on the Fatigue Performances of Mechanical Components -- An expert system for automated quality control: a case study in a mechatronic manufacturing company -- Data-Driven Support Vector Machine to Predict Thin-Walled Tube Energy Absorbers Behavior -- Estimation of hydraulic power losses in a double-row tapered roller bearing via computational fluid dynamics -- Numerical Analysis of the Impact of Shot Peening on the Tooth Root Strength of AlSi10Mg Gears using Critical Plane Multiaxial Fatigue Criteria .

| Sommario/riassunto | This book offers insights into the new trends that are pushing industries toward the 5.0 paradigm. Digitalization has made tremendous inroads, and the key enabling technologies for Industry 4.0 are increasingly mature. "Towards a Smart, Resilient and Sustainable Industry" not only strikes a balance among the current benefits, issues, and limitations of the current wave of digitalization, but also identifies the key challenges for making new industrial developments favorable for people and the environment. The different perspectives presented in this collection are gathered from contributions presented at the 2nd International Symposium on Industrial Engineering and Automation (ISIEA 2023), which took place at the Free University of Bozen-Bolzano on June 22-23, 2023. Readers will realize how aspects from different disciplines are interwoven to allow positive changes across industries: from engineering to artificial intelligence, from management to design, and from health care tobiology. |