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Soggetti	Composite materials Metals Materials - Fatigue Composites Metals and Alloys Materials Fatigue
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Productivity and safety improvement in industry using ergonomics - A case study -- Artificial intelligence in lean manufacturing paradigm: A Review -- Quantum Dots in Point-of-Care Testing Devices for Disease Diagnosis -- 2D & 3D Protein Sequencing implementation using Ant Colony Optimization Algorithm -- Optimization of Process Parameters in W-EDM with HCHCR by using Taguchi Optimization Technique & Grey Relational Analysis -- A Multi-Objective Optimization Study on Electrical Discharge Machining 90CrSi Tool Steel with Graphite Electrodes -- Optimization Study of Material Removal Speed when Grinding Stainless Steel on CNC Milling Machine by CBN Wheel -- Design and Analysis of Optimized Dimensional MIMO Antenna Using Sequential Non-Linear Programming Algorithm -- Optimal Allocation of FACTS devices in the transmission System using Teaching Learning Based Optimization Algorithm -- An Efficient Vedic Based Processing Element for Systolic Array -- A novel knowledge based classification algorithm for Satellite images -- Heat and mass transfer flow in Magneto Hydro Dynamic Convective flow through a porous medium

between a vertical infinite plate with Soret and Joules dissipation -- Future Generation Materials and Techniques for Sustainable Construction -- Design and Fabrication of Impression Creep Testing Set-up and Experimental Validation with 2219Al Alloys -- Theoretical comparison of properties and their characteristics features for additive manufactured metal and ceramic structures -- Aqueous extract of Colocasia esculenta leaves for pre-vention of low carbon steel corrosion in 0.5 M NaCl -- Effect of various tools on bone condensing to improve the stability of dental implant -- Investigation of Modal Analysis of Tri-Directional Functionally Graded Material Plate -- A review: Investigation of Length effect in carbon nanotube (CNT) reinforced aluminium (Al) composites -- Influence of PMEDM Parameters on Surface Roughness when Processing 90CrSi Tool Steel with Graphite Electrodes -- A Study of the Coecient of Friction in DP-590 steel Sheets Forming -- A Machine Learning Scheme to Identify Coherency of Generators in Power Systems -- IOT based Bi-directional meter -- Temperature robust health bench-marking and monitoring of an heritage suspension bridge using coupled IWCM and TBSI method -- A Novel Unified Power-Quality Conditioning System on Line Loading, Losses, and Voltage Stability of Smart Buildings -- Power Source Scheduling and Control of Solar PV Assisted Electric Vechicle Charging Station -- Hybrid and Solid State Transformers for Power Quality Enhancements in Distribution grid-comparison to voltage Regulation Distribution Transformer -- Fuzzy controller for DFIG based wind farm for improving the stability characteristics in a microgrid -- Non- Linear Modelling and Control of Permanent Magnet Synchronous Machine for Actuator Applications -- Object Detection In A Video Footage -- An Investigation of a Frequency Reconfigurable Circu-lar Polarized Textile Antenna Bending Effects for On-Body Communication applications.

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#### Sommario/riassunto

This book presents select proceedings of the International Conference on Materials Processing and Characterization (ICMPC 2021). It particularly focuses on emerging trends related to advanced materials processing and characterization and current practices in industries. It discusses innovative manufacturing processes, standards and technologies used to broaden the knowledge of materials and also help to increase innovation and responsiveness to ever-increasing international needs, more in-depth studies of functionally graded materials/ tailor-made materials. This book will be a valuable resource for students, researchers, and professionals working in the various areas of materials science.

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