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Collana	Lecture Notes in Mechanical Engineering, , 2195-4364
Disciplina	670.42
Soggetti	Manufactures Coatings Tribology Corrosion and anti-corrosives Materials Materials - Analysis Machines, Tools, Processes Corrosion Materials Engineering Characterization and Analytical Technique
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Experimental investigations on FSW of AA6082-T6 aluminium alloy -- Plasma Spray Deposition of HA-TiO <sub>2</sub> composite coating on Ti-6Al-4V alloy for Orthopedic Applications -- Review on surface modifications of the workpiece by electric discharge machining -- Experimental Investigations on heat generation and Surface Roughness during orthogonal machining of Stainless Steel using bio based oil MQL -- Performance of Composite coating on cutting tools: Coating technologies, performance optimization and their characterization: A review -- Transient Analysis of GTA Welded Austenitic and Ferritic Stainless Steel -- Electrodeposition and Corrosion Analysis of Ni-Mo Alloy Coatings -- Review on Microwave Cladding: A new Approach -- Characterization of Hemp Fibre Reinforced Gypsum Panels for Building

Insulation -- A short note on the processing of materials through microwave route -- Investigations for improving solid state weldability of dissimilar thermoplastic composites through melt processing -- A short note on the friction Stir welding of the aluminum alloys -- Pyrolysis system for environment-friendly conversion of plastic waste into fuel -- Experimental investigation of surface integrity and machining characteristics of Ti-6Al-4V Alloy machined by Wire-EDM process -- Self-healing material- A new generation of materials -- Effect of Hard Chromium Coating on the Frictional Behavior of Piston Rings Material -- To study the effect of SLS parameters for dimensional accuracy -- Residual Stresses Analysis on Thermal Barrier Coatings - NDT Tool for Condition Assessment -- Wettability analysis of Polyetheretherketone based nanocomposites -- Developments in Metallic Biomaterials and Surface Coatings for various Biomedical Applications -- Effects of shielded metal arc welding process parameters on dilution in hardfacing of mild steel using factorial design -- Some investigations on the tensile strength of additively manufactured Poly-lactic-acid components -- Experimental Investigation and Parametric optimization of wire electrical discharge machining for Ti-6Al-4V alloy using response surface methodology -- Effect of process parameters on volume and geometrical features of electric discharge machined channels on a cast AA6061-B4C composite -- Characterization of plasma sprayed 87%Al<sub>2</sub>O<sub>3</sub>-13%TiO<sub>2</sub> and 88% WC-12%Co coatings on ASTM A36 steel -- Influence of 3D printing technology on biomedical applications: A study on surgical planning, procedures and training -- Validation and Multi-response optimization of topological & geometrical parameters of Stainless steel cantilever Beam with Finite Element Analysis subjected to point load using Taguchi L9 orthogonal array integrated with utility methodology -- Micro-feature fabrication on external cylindrical surface by centreless electric discharge grinding -- Feasibility Study on Machining of Niobium to Achieve Nanometric Surface Finish -- Parametric Optimization Based on Mechanical Characterization of Fused Deposition Modelling Fabricated Part Using Utility Concept -- Recharging Aquifers through Percolation & Filtration: An integrated approach.

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### Sommario/riassunto

This book presents the select proceedings of the International Conference on Functional Material, Manufacturing and Performances (ICFMMP) 2019. The book primarily covers recent research, theories, and practices relevant to surface engineering and processing of materials. It focuses on the lesser-known technologies and advanced manufacturing methods which may not be standardized yet but are highly beneficial to material and manufacturing industrial engineers. The book includes current advances in the field of coating, deposition, cladding, nanotechnology, surface finishing, precision machining, processing, and emerging advanced manufacturing technologies which enhance the performance of materials in terms of corrosion, wear and fatigue. The book can be a valuable reference for beginners, researchers, and professionals interested in materials processing and allied fields.

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