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Descrizione fisica	1 online resource (195 p.)
Disciplina	620
Soggetti	Manufactures Chemistry, Technical Computer-aided engineering Engineering design Machines, Tools, Processes Industrial Chemistry Computer-Aided Engineering (CAD, CAE) and Design Engineering Design
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Influence of Process Parameters on Tensile Strength of Additive Manufactured Polymer Parts using Taguchi Method -- Determination and Comparison of the Anisotropic Strengths of Fused Deposition Modeling P400 ABS -- Estimating the Effect of Process Parameters on Build Time and Model Material Volume for FDM Process Optimization by Response Surface Methodology and Grey Relational Analysis -- Current Trends of Additive Manufacturing in the Aerospace Industry -- Influence of Oxygen Partial Pressure on Hydroxyapatite Coating of Additive Manufactured component by Pulsed Laser Deposition -- Electro Discharge Machining of Ti-alloy(Ti6Al4V) and 316LStainless Steel and Optimization of Process Parameters by Grey Relational Analysis (GRA) Method -- Multi-Objective Optimization of Mechanical Properties of Aluminium 7075 Based Hybrid Metal Matrix Composite using Genetic Algorithm -- A Review on Status of Research in Metal Additive Manufacturing -- Multi Response Optimization of Nd: YAG

Laser for Micro Drilling of 304Stainless Steel using Grey Relational Analysis -- Additive Manufacturing at French Space Agency with Industry Partnership -- Wear Characterization of Direct Steel –H20 Specimens Produced by Additive Manufacturing Techniques -- Rapid Manufacturing of Customized Surgical Cutting Guide for the Accurate Resection of Malignant Tumor in the Mandible -- Implant Analysis on the Lumbar-Sacrum Vertebrae using Finite Element Method -- An Automated Acupressure Glove For Stress & Pain Relief Using 3D Printing -- Development and Optimization of Dental Crown using Rapid Prototyping Integrated with CAD.

Sommario/riassunto

This edited volume comprises select chapters on advanced technologies for 3D printing and additive manufacturing and how these technologies have changed the face of direct, digital technologies for rapid production of models, prototypes and patterns. Because of its wide applications, 3D printing and additive manufacturing technology has become a powerful new industrial revolution in the field of manufacturing. The evolution of 3D printing and additive manufacturing technologies has changed design, engineering and manufacturing processes across industries such as consumer products, aerospace, medical devices and automotives. The objective of this book is to help designers, R&D personnel, and practicing engineers understand the state-of-the-art developments in the field of 3D Printing and Additive Manufacturing. .