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| Nota di contenuto       | Cover -- Title Page -- Copyright Page -- Contents -- Preface --<br>Chapter 1 Brief Glimpses of Additive Manufacturing Techniques -- 1.1<br>Introduction -- 1.2 Polymer-Based AM -- 1.3 Surgical Planning --<br>1.4 Titanium Alloy -- 1.5 Thickness Control Using Machine Learning<br>-- 1.6 Carbon Fiber-Based AM -- 1.7 Ceramics-Based AM -- 1.8<br>Wire Polymer-Based AM -- 1.9 Nanomaterial-Based AM -- 1.10<br>Direct Ink Writing (DIW) -- 1.11 Hull of Soy -- 1.12 Laser Powder Bed<br>Fusion -- 1.13 Future Challenges -- 1.14 Future Scope of AM --<br>1.15 Conclusion -- References -- Chapter 2 Recent Developments in<br>Additive Manufacturing Equipment's and Its Processes -- 2.1<br>Introduction -- 2.2 Equipment and Procedures for Polymer Additive<br>Manufacturing -- 2.2.1 Stereolithography -- 2.2.2 Ink Jetting --<br>2.3 Equipment and Procedures for Metal Additive Manufacturing --<br>2.3.1 Powder Bed Fusion -- 2.3.2 Directed Energy Deposition |
| Sommario/riassunto      | This book provides a comprehensive exploration of additive<br>manufacturing, focusing on novel materials, processes, properties, and<br>applications. Edited by experts in the field, it covers various aspects of   |

additive manufacturing techniques, including polymer-based, metal, and ceramic processes. The book discusses recent developments in equipment, computational modeling, and machine learning applications in additive manufacturing. It also addresses the methodologies from feedstock to final components, along with the process and properties of polymeric materials and metal-matrix composites. Additionally, the book reviews defects in additively manufactured parts and techniques for improvement. Intended for professionals and researchers in engineering and manufacturing, it serves as an essential resource for understanding the current advancements and future challenges in additive manufacturing.

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