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Nota di contenuto	Chapter1: Structure/Property Behavior of Additively Manufactured (AM) Materials: Opportunities & Challenges -- Chapter2: Fatigue Characterization of 3D-printed Maraging Steel by Infrared Thermography -- Chapter3: Quasi-Static and Dynamic Fracture of Additively Printed ABS Studied using DIC: Role of Build Architecture and Loading Rate -- Chapter4: Compression and Shear Response of 3D Printed Foam Pads -- Chapter5: Mechanical Structure-Property Relationships for 2D Polymers Comprised of Nodes and Bridge Units -- Chapter6: Mechanical Behavior of Additively Manufactured Ti-6Al-4V Following a New Heat Treatment -- Chapter7: Dynamic Thermal Softening Behavior of Additive Materials for Hybrid Manufacturing -- Chapter8: Correlation between Process Parameters and Mechanical Properties in Parts Printed By the Fused Deposition Modeling Process -- Chapter9: Mechanical Characterization of Cellulose Nanofibril Materials made by Additive Manufacturing -- Chapter10: Shock Propagation and Deformation of Additively-Manufactured Polymer Foams with

Engineered Porosity -- Chapter11: Mechanical Characterization of Fused Filament Fabrication Polyvinylidene Fluoride Printed (PVDF) Composites -- Chapter12: Influence of an Extreme Environment on the Tensile Mechanical Properties of a 3D Printed Thermoplastic Polymer -- Chapter13: A Framework for Estimating of Mold Performance Using Experimental and Numerical Analysis of Injection Mold Tooling Prototypes -- Chapter14: Effect of Processing Parameters on Interlayer Fracture Toughness of Fused Filament Fabrication Thermoplastic Materials -- Chapter15: Forced-Response Verification of Unique Additive Manufactured Vibration Suppressed Specimens -- Chapter16: Computational and Experimental Characterization of 3D Printed Components by Fused Deposition Modeling -- Chapter17: Linking Thermal History to Mechanical Behavior in Directed Energy Deposited Materials. .

Sommario/riassunto

Mechanics of Additive and Advanced Manufacturing, Volume 8 of the Proceedings of the 2018 SEM Annual Conference & Exposition on Experimental and Applied Mechanics, the eighth volume of eight from the Conference, brings together contributions to this important area of research and engineering. The collection presents early findings and case studies, including: Fatigue & Fracture in AM Materials Additively Manufactured Metals & Structures AM Process Characterization Processing & Mechanical Behavior of AM Materials Dynamic Response of AM Materials Additively Manufactured Polymers & Composites.
