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Nota di contenuto	Part 1: Mechanical and Thermal Characterization of materials -- Chapter 1. Thermal Analysis of Laminated Plates Using Quasi-Three-Dimensional Theory with Transverse Normal Strain Effect -- Chapter 2. Behaviour of hard-to-form material in friction stir incremental forming process -- Chapter 3. Influence of prestressing force on performance of prestressed concrete -- Chapter 4. Development of c1 smooth basis in isogeometric analysis for multipatch domain -- Chapter 5. Modal characterization of additively manufactured chiral structure: suppression of its multiple responses -- Chapter 6. Pre-mature and extended contact behaviour of PA-6 and PA-6,6 gears -- Chapter 7. Effect of Friction coefficient and feed rates on Residual Stresses of Zr-4 Processed by Swaging -- Chapter 8. A Comparative Study on Cryorolling and Cryo Cross Rolling Treatment on Tensile and Fracture Properties of Al 5052 Alloy -- Chapter 9. A study on tensile strength attributes of jute fiber reinforced polyester composites -- Chapter 10. A study on tensile strength attributes of banana polyester composites

-- Chapter 11. Predicting the failure envelope of calcified aneurysmatic tissue -- Chapter 12. Residual properties and failure characterization of glass/epoxy laminates: effect of slender filler reinforcement -- Chapter 13. Potential of development of anti-erosion graphene reinforced coatings for wind turbine blades -- Chapter 14. An entropy based damage model to assess the creep behaviour of nickel based superalloys -- Chapter 15. Influence of porosity and temperature load on buckling characteristics of functionally graded material plates. etc.

Sommario/riassunto

This book comprises the select peer-reviewed proceedings of the 13th International Symposium on Plasticity and Impact Mechanics (IMPLAST) 2022. It aims to provide a comprehensive and broad-spectrum picture of the state-of-the-art research and development in diverse areas, such as constitutive relations, theories of plasticity, stress waves in solids, earthquake loading, high-speed impact problems, fire and blast loading, structural crashworthiness and failure, mechanics of penetration and perforation, among others. The contents focus on aspects of large deformations and failure of materials, including metals, composites, cellular, geomaterials, or concrete, and structures resulting from quasi-static earthquake, fire, impact, or blast loading. This book is a valuable resource for researchers and professionals working in academia and industry in the areas of mechanical, materials, and aerospace engineering.
