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Altri autori (Persone)	OchsnerAndreas AltenbachHolm <1956->
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Neural Model for Prediction of Tires Eigenfrequencies -- Effect of Steady Ampoule Rotation on Radial Dopant Segregation in Vertical Bridgman Growth -- Discontinuity Detection in the Vibration Signal of Turning Machines -- Visualization of Global Illumination Variations in Motion Segmentation -- Evaluation of Fatigue Behavior of SAE 9254 Steel Suspension Springs Manufactured by Two Different Processes: Hot and Cold Winding.-Yield Criteria for Incompressible Materials in the Shear Stress Space V. A. Kolupaev, A. Bolchoun, H. Altenbach -- The Optimum Design of Laminated Slender Beams with Complex Curvature using a Genetic Algorithm -- A Finite Element Approach For the Vibration of Single-Walled Carbon Nanotubes -- Characteristics of Welded Thin Sheet AZ31 Magnesium Alloy -- Localization of Rotating Sound Sources using Time Domain Beamforming Code -- Mathematical Modelling of the Physical Phenomena in the Interelectrode Gap of the

EDM Process by Means of Cellular Automata and Field Distribution Equations -- Free Vibration Analysis of Clamped-Free Composite Elliptical Shell with a Plate Supported By Two Aluminum Bars -- Vibration Analysis of Carbon Fiber T-Plates with Different Damage Patterns -- Mechanical Characteristics Of Aa5083 - Aa6013 Weldment Joined With AlSi12 And AlSi5 Wired -- Numeric Simulation of the Penetration of 7.62 mm Armour Piercing Projectile into Ceramic/Composite Armour -- In-situ TEM Observation of Deformations in a Single Crystal Sapphire During Nanoindentation -- The Effect of Nanotube Interaction on the Mechanical Behavior of Carbon Nanotube Filled Nanocomposites -- An Automatic Process to Identify Features on Boreholes Data by Image processing techniques -- An Optimization Procedure to Estimate the Permittivity of Ferrite-Polymer Composite.

Sommario/riassunto

The idea of this monograph is to present the latest results related to experimental and numerical investigations of advanced materials and structures. The contributions cover the field of mechanical, civil and materials engineering, ranging from new modelling and simulation techniques, advanced analysis techniques, optimization of structures and materials and constitutive modelling. Well known experts present their research on damage and fracture of material and structures, materials modelling and evaluation up to image processing and visualization for advanced analyses and evaluation.
