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Titolo	Advances in Acoustics and Vibration : Proceedings of the International Conference on Acoustics and Vibration (ICAV2016), March 21-23, Hammamet, Tunisia / / edited by Tahar Fakhfakh, Fakher Chaari, Lasaad Walha, Moez Abdennadher, Mohamed Slim Abbes, Mohamed Haddar
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Descrizione fisica	1 online resource (323 p.)
Collana	Applied Condition Monitoring, , 2363-698X ; ; 5
Disciplina	620
Soggetti	Vibration Dynamical systems Dynamics Acoustical engineering Quality control Reliability Industrial safety Vibration, Dynamical Systems, Control Engineering Acoustics Quality Control, Reliability, Safety and Risk
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Fault Diagnosis in Gas Turbine Based on Neural Networks: Vibrations Speed Application -- Early Detection of gear Faults in Variable Load and Dimensions Defect Using Ensemble Empirical Mode Decomposition (EEMD) -- Design of Shunted Piezoelectric Patches Using Topology Optimization for Noise and Vibration Attenuation -- Prediction of Sound Radiation from Submerged Cylindrical Shell Structure with an Interpolation Method for the Measured Surface Velocity.-Identification of Small Objects with Near-Field Data in Quasi-Backscattering Configurations -- Characterization of Sandwich Beams with Shear Damage by Linear Vibration Method -- Parameter Identification of a

Sandwich Beam Using Numerical-Based Inhomogeneous Wave Correlation Method.-Time Domain Stability Analysis For Machining Processes -- Modeling and Control for Lateral Rail Vehicle Dynamic Vibration with Comfort Evaluation -- Vibration Detection in Gas Turbine Rotor Using Artificial Neural Network Combined with Continues Wavelet -- A Finite Element Model for Elastic-Viscoelastic â€“Elastic Composite Structures -- Application of the Operational Modal Analysis Using the Independent Component Analysis in the Case of a Quarter Car Vehicle Model -- Feature Extraction Using S-Transform and 2DNMF for Diesel Engine Faults Classification -- Experimental Study of Combined Gear and Bearing Defects by Sound Perception -- Modal Analysis of Spur Gearbox with an Elastic Coupling -- Planet Load Sharing Behavior During Run Up -- Multi-objective Design Optimization of the NBTTL Mechanism -- Appropriation Method Applied to the Estimation of Modal Damping -- Simulation of Resonance Phenomenon in Pipelines Caused by Water Hammer.-Sensitivity of GFRP Composite Integrity to Machining-Induced Heat: A Numerical Approach -- A Comparative Assessment of In-Operation Modal Analysis and Frequency Domain Decomposition Using Simulated Data -- Experimental Investigation for Forced Vibration of Honeycomb Sandwich Beams -- Theoretical and Experimental Analysis of the Vibrational Behavior of a Polyester Composite Material -- Robust Multi-objective Collaborative Optimization of Complex Structures -- Investigations on the Validity of the Poisson Assumption in Reliability Based Optimization of TMD Parameters -- FE Modeling of Wear Mechanisms in UD-GFRP Composites Using Single-Indenter Scratch Test: A Micromechanical Approach -- Dynamic Analysis of the Perforation of Aluminum Alloy at Low Velocity Impact -- Non-linear Dynamics Analysis of Multilayer Composite Shells with Enhanced Solid-shell Elements -- An Effective Method for the Identification of Support Features in Multi-Supported Systems -- Dynamic Analysis of a Wedge Disc Brake According to the Variations of Friction Coefficient.

Sommario/riassunto

The book provides readers with a snapshot of recent research and industrial trends in field of industrial acoustics and vibration. Each chapter, accepted after a rigorous peer-review process, reports on a selected, original piece of work presented and discussed at International Conference on Acoustics and Vibration (ICAV2016), which was organized by the Tunisian Association of Industrial Acoustics and Vibration (ATAVI) and held March 21-23, in Hammamet, Tunisia. The contributions, mainly written by north African authors, covers advances in both theory and practice in a variety of subfields, such as: smart materials and structures; fluid-structure interaction; structural acoustics as well as computational vibro-acoustics and numerical methods. Further topics include: engines control, noise identification, robust design, flow-induced vibration and many others.This book provides a valuable resource for both academics and professionals dealing with diverse issues in applied mechanics. By combining advanced theories with industrial issues, it is expected to facilitate communication and collaboration between different groups of researchers and technology users.