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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	1 Practical Techniques for Scaling of Optically Measured Operating Deflection Shapes -- 2 Prediction of the Coupled Impedance from Frequency Response Data -- 3 Real-Time State Detection in Highly Dynamic Systems -- 4 Stereo-DIC Measurements of Thermal Gradient Effects on the Vibratory Response of Metals -- 5 Modal Testing of a Nose Cone Using Three-Dimensional Scanning Laser Doppler Vibrometry -- 6 A Mathematical Model for Determining the Pose of a SLDV -- 7 Operational Modal Analysis with a 3D Laser Vibrometer Without External Reference -- 8 Scanning LDV Measurement Technology For Vibration Fatigue Testing -- 9 Optically Detecting Wavefronts and Wave Speeds in Water Using Refracto-Vibrometry -- 10

Stochastic Wavenumber Estimation: Damage Detection Through Simulated Guided Lamb Waves -- 11 Use Of Continuous Scanning LDV For Diagnostic -- 12 A Cost Effective DIC System for Measuring Structural Vibrations -- 13 Teaching DSP and Dynamic Measurements at the Graduate Level at Michigan Technological University -- 14 Flipping The Classroom For a Class On Experimental Vibration Analysis -- 15 Lessons Learned From Operational Modal Analysis Courses at the University of Molise -- 16 Authentic Engineering Assignments for an Undergraduate Vibration Laboratory Class -- 17 Vibration and Acoustic Analysis of Acoustic Guitar in Consideration of Transient Sound -- 18 Demarcation for the Coupling Strength in the MODENA Approach -- 19 Vibro-Acoustic Modal Model of a Traction Motor for Railway Applications -- 20 Operational Deflection Shapes of a PWM-fed Traction Motor -- 21 Acoustic Fatigue and Dynamic Behavior of Composite Panels Under Acoustic Excitation -- 22 Evaluation of Microphone Density for Finite Element Source Inversion Simulation of a Laboratory Acoustic Test -- 23 Experimental Mapping of the Acoustic Field Generated by Ultrasonic Transducers -- 24 Enhanced Spin-Down Diagnostics for Nondestructive Evaluation of High-Value Systems -- 25 Performing Direct-Field Acoustic Test Environments on a Sandia Flight System to Provide Data for Finite Element Simulation -- 26 Smooth Complex Orthogonal Decomposition Applied to Traveling Waves in Elastic Media -- 27 Subspace Algorithms in Modal Parameter Estimation for Operational Modal Analysis: Perspectives and Practices -- 28 An Application of Multivariate Empirical Mode Decomposition Towards Structural Modal Identification -- 29 Dynamic Characterization of Milling Plant Columns -- 30 Mixed Force and Displacement Control for Base-Isolation Bearings in RTHS -- 31 Leveraging Hybrid Simulation for Vibration-Based Damage Detection Studies -- 32 Real Time Hybrid Simulation with Online Model Updating on Highly Nonlinear Device -- 33 Discrete-time Compensation Technique for Real-Time Hybrid Simulation -- 34 Evaluating the Effectiveness of a Lodengraf Damping Approach for String Trimmers -- 35 Using Operating Data to Locate & Quantify Unbalance in Rotating Machinery -- 36 Gear Dynamics Characterization by Using Order-Based Modal Analysis -- 37 A Design Framework to Improve the Dynamic Characteristics of Double Planet Planetary Gearsets -- 38 Dynamics and Pareto Optimization of a Generic Synchronizer Mechanism -- 39 Modeling and Characterization of a Flexible Rotor Supported by AMB -- 40 Nonlinear Reduced Order Modeling of a Curved Axi-symmetric Perforated Plate: Comparison with Experiments -- 41 Reduced Order Models for Systems with Disparate Spatial and Temporal Scales -- 42 Using NNMs to Evaluate Reduced Order Models of Curved Beam -- 43 Simulation of Rotor Damping Assembled by Disc Shrink Fits -- 44 Developments in the Prediction of Full Field Dynamics in the Nonlinear Forced Response of Reduced Order System Models -- 45 On the Behaviour of Structures with Many Nonlinear Elements -- 46 Estimation of Instantaneous Speed for Rotating Systems: New Processing Techniques -- 47 Identification of Breathing Cracked Shaft Models from Measurements.

Sommario/riassunto

Rotating Machinery, Hybrid Test Methods, Vibro-Acoustics & Laser Vibrometry, Volume 8.Proceedings of the 34th IMAC, A Conference and Exposition on Dynamics of Multiphysical Systems: From Active Materials to Vibroacoustics, 2016, the eighth volume of ten from the Conference brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on fundamental and applied aspects of Structural Dynamics, including papers on: • Processing Modal Data • Rotating Machinery • Vibro Acoustics • Laser Vibrometry • Teaching Practices • Hybrid Testing •