

1. Record Nr.	UNINA9910299723503321
Titolo	Topics in Modal Analysis I, Volume 7 : Proceedings of the 32nd IMAC, A Conference and Exposition on Structural Dynamics, 2014 // edited by James De Clerck
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-04753-1
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (343 p.)
Collana	Conference Proceedings of the Society for Experimental Mechanics Series, , 2191-5644
Disciplina	620.104
Soggetti	Vibration Dynamical systems Dynamics Aerospace engineering Astronautics Mechanics Mechanics, Applied Vibration, Dynamical Systems, Control Aerospace Technology and Astronautics Solid Mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Infant Brain Response Against Shaking Vibration Using Finite Element Analysis -- Integrity Assessment of Pickup Vehicle Occupants in Rollover Situation Considering Internal ROPS Device: A Numerical Approach -- Rated Life Calculation Potential of Gearbox Model Based Force Estimates -- Electromechanical Impedance Based Crack Detection for a Rotating Machine -- Wind Turbine Gearbox Dynamic Characterization using Operational Modal Analysis -- Mode Classification & Dynamic Analysis of Coupled "Motor-Compressor-Flexible-Foundation" Structures -- Reconstructing Forces From Continuous Connections Using SWAT -- Modal Analysis of Rotating Wind Turbine Using Multiblade Coordinate Transformation and

Harmonic Power Spectrum -- Lateral Vibrations in High Speed Over Critical Drive Train Systems -- Vibration Energy Trending and Speed-frequency Transformation in Run-up/ Coast-down Tests -- Vibration Mitigation on Engine Test Stands Using Conventional Analysis Techniques -- Dynamic Modeling and Vibration Analysis of Oilwell Drillstring During Backreaming Operation -- Torsional Damping Identification in Rotating Machinery -- Numerical and Experimental Dynamic System Identification for the Development of Operational Modal Analysis in a Physics-Based Diagnostic/Prognostic Model -- The Influence of Loading Conditions on the Static Coefficient of Friction - A Study on Brake Creep Groan -- Linear Superposition and Modal Participation -- Un-Weighted And Weighted Versions Of The Modal Assurance Criterion (MAC) for Evaluation Of Modal Vector Contamination -- Modal Properties of Rotating Shafts With Order-tuned Absorbers -- Structural Modal Identification Through High Speed Camera Video: Motion Magnification -- Operational Modal Analysis With Photo Images From Low Speed Digital Camera -- Recovery of Mode Shapes From Continuous Scanning Laser Doppler Vibration Data: A Mode Matching Frequency Domain Approach -- A Compact Device for Measuring Rigid-Body Properties Based on Five Unscaled Modes -- Three-Dimensional Modal Parameters of Tire -- Hybrid EMA/OMA Data Collection/Reduction for Improved Modal Characterization -- Numerical and Experimental Determination of Nonlinear Normal Modes of a Circular Perforated Plate -- Experiment of Vibration Isolation Characteristics of a Periodic Curved Beam -- Investigation on Damping of a Host Structure Induced by Attached Cables -- Effect of Structural Damping on Vibrations Transmitted to Road Cyclists -- Statistical Approach for Active Buckling Control With Uncertainty -- An Overview of the Technology, History, and Application of Vibro-Acoustic Coupling -- EMA-BEM-NAH-SEA Path to a Dynamic Filter Model for Violin Radiativity -- Coupled Vibro-Acoustic Model of the Titian Stradivari Violin -- Vibrational Response of Elastic Membranes Coupled to Acoustic Fluids Using a BEM-BEM Formulation -- Parametric Study Of A Continuous Scanning Method Used to Characterize An Acoustic Field.

Sommario/riassunto

This critical collection examines a range of topics in modal analysis, from experimental techniques to acoustics to biodynamics, as presented in early findings and case studies from the Proceedings of the 32nd IMAC, A Conference and Exposition on Structural Dynamics, 2014. The collection includes papers in the following general technical research areas: · Experimental Techniques · Processing Modal Data · Rotating Machinery · Acoustics · Adaptive Structures · Biodynamics · Damping.
