

1. Record Nr.	UNINA9910299748003321
Titolo	Topics in Modal Analysis II, Volume 8 : Proceedings of the 32nd IMAC, A Conference and Exposition on Structural Dynamics, 2014 // edited by Randall Allemang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-04774-4
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (409 p.)
Collana	Conference Proceedings of the Society for Experimental Mechanics Series, , 2191-5652
Disciplina	624.1762
Soggetti	Multibody systems Vibration Mechanics, Applied Aerospace engineering Astronautics Solids Multibody Systems and Mechanical Vibrations 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 at the end of each chapters.
Nota di contenuto	Integrating Multiple Algorithms in Autonomous Modal Parameter Estimation -- Effects of Magneto-mechanical Coupling on Structural Modal Parameters -- Extraction of Modal Parameters of Micromachined Resonators in Higher Modes -- Normalization of Experimental Modal Vectors to Remove Modal Vector Contamination -- Effective Use of Scanning Laser Doppler Vibrometers for Modal Testing -- Precise Frequency Domain Algorithm of Half Spectrum and FRF -- Identification of a Time-varying Beam Using Hilbert Vibration Decomposition -- Recovery of Operational Deflection Shapes From Noise-corrupted Measurement Data From CSLDV: Comparison Between Polynomial and Mode Filtering Approaches -- Exploiting Imaging Techniques to Overcome the Limits of Vibration Testing in High Excitation Level

Conditions -- An Experimental Modal Channel Reduction Procedure Using a Pareto Chart -- Unique Isolation Systems to Protect Equipment in Navy Shock Tests -- Nonlinear High Fidelity Modeling of Impact Load Response in a Rod -- On The Role of Boundary Conditions in the Nonlinear Dynamic Response of Simple Structures -- Evaluation of On-Line Algebraic Modal Parameter Identification Methods -- Ambient Vibration Test of Granville Street Bridge Before Bearing Replacement -- Vibration Testing and Analysis of A Monumental Stair -- Evaluation of stop bands in periodic and semi-periodic structures by experimental and numerical approaches -- Operating Mode Shapes of Electronic Assemblies Under Shock Input -- Comparison of Modal Parameters Extracted Using MIMO, SIMO, and Impact Hammer Tests on a Three-bladed Wind Turbine -- Modal Test Results of a Ship Under Operational Conditions -- Measuring Effective Mass of a Circuit Board -- Acoustic Cavity Modal Analysis for NVH Development of Road Machinery Cabins -- Strain-based Dynamic Measurements and Modal Testing -- AIRBUS A350 XWB GVT: State-of-the-art Techniques to Perform a Faster and Better GVT Campaign -- Finite Element Model Updating Using the Separable Shadow Hybrid Monte Carlo Technique -- Bayesian System Identification of Dynamical Systems Using Reversible Jump Markov Chain Monte Carlo -- Assessment and Validation of Nonlinear Identification Techniques Using Simulated Numerical and Real Measured Data -- Effects of Errors in Finite Element Models on Component Modal Tests -- Estimating Frequency-Dependent Mechanical Properties of Materials -- Flexible Dynamic Modeling of Turret Systems by Means of Craig-Bampton Method and Experimental Validation -- Material Characterization of Gyroscope Isolator Using Modal Test Data -- Loss Factors Estimation Using FEM in Statistical Energy Analysis -- Investigation of Crossing and Veering Phenomena in an Isogeometric Analysis framework -- Influence of Fan Balancing in Vibration Reduction of a Braking Resistor -- Vibrations of Discretely Layered Structures Using a Continuous Variation Model -- Next-Generation Random Vibration Tests -- Optimal Phasing Combinations for Multiple Input Source Excitation.

Sommario/riassunto

This critical collection examines a range of topics in modal analysis, from finite element techniques to modal testing methods to shock and vibration, 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: · Finite Element Techniques · Modal Parameter Identification · Modal Testing Methods · Shock & Vibration.
