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Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (xii, 317 pages) : illustrations (some color)
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Soggetti	Engineering mathematics Nonlinear theories
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Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographic references and index.
Nota di contenuto	Part I: Analytical Nonlinearity -- Smart Flat Ride Tuning -- Light-Tracking Kinematics of Mobile Platform -- Diagnosis and Control of Nonlinear Oscillations of a Fluttering Plate -- A New Approach to the Tracking Control of Uncertain Nonlinear Multi-body Mechanical Systems -- Robustness of Orthogonal Eigenstructure Control to Actuators Failure -- Part II Practical Nonlinearity -- Energy Harvesting from Flows Using Piezoelectric Patches -- Experimental and Finite Element Nonlinear Dynamics Analysis of Formula SAE Impact Attenuator -- Nonlinear Vehicle Seat BSR characterization using CAE Methodology -- Parametric Segmentation of Nonlinear Structures in Visual Data: An Accelerated Sampling Approach -- Mechanical and Electromechanical Parametric Amplifiers.
Sommario/riassunto	Nonlinear Approaches in Engineering Applications 2 focuses on the application of nonlinear approaches to different engineering and science problems. The selection of topics for this book is based on the best papers presented in the ASME 2010 and 2011 in the tracks of Dynamic Systems and Control, Optimal Approaches in Nonlinear Dynamics and Acoustics, both of which were organized by the editors. For each selected topic, detailed concept development, derivations and

relevant knowledge are provided for the convenience of the readers. The topics that have been selected are of great interest in the fields of engineering and physics and this book is designed to appeal to engineers and researchers working in a broad range of practical topics and approaches. This book also: Provides updated principles and applications of the nonlinear approaches in solving engineering and physics problems Demonstrates how nonlinear approaches may open avenues to better, safer, cheaper systems with less energy consumption Has a strong emphasis on the application, physical meaning, and methodologies of nonlinear approaches in different engineering and science problems.

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