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Collana	Advances in science and technology ; ; 83
Altri autori (Persone)	VincenziniP. <1939-> CasciatiFabio RizzoPiervincenzo
Disciplina	620.11
Soggetti	Smart materials Smart structures
Lingua di pubblicazione	Inglese
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Note generali	Vol. 7 of 10 volumes from the 4th International Conference "Smart Materials, Structures and Systems".
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Nota di contenuto	Embodying Intelligence in Structures and Integrated Systems; Preface and Committees; Table of Contents; Chapter 1: Smart Materials, Sensors, Actuators, MEMS; Report on the 2011 off the Pacific Coast of Tohoku Earthquake: Its Impact, and Control/Monitoring Performances; Development of some Smart Sensors for Monitoring Civil Infrastructures; Fatigue of NiTi for Dampers and Actuators; On Characteristic Properties of a Layered Packet Base-Foundation on the Base of the Analysis of the Solutions of the Corresponding Three-Dimensional Dynamic Problems of Elasticity Theory Chapter 2: Integration Technologies Model Order Reduction Issues for Integrated Structural Control Design; A Mathematical Framework for Structural Control Integration; Insight and Applications in Energy Harvesting from Bullets to Birds; A Fractal-Inspired Multi-Frequency Piezoelectric Energy Converter: Design and Experimental Characterization; Chapter 3: Smart Structures and Integrated Systems; Seismic Protection of Structures Using Tuned Mass Dampers with

Resettable Variable Stiffness; Mechanics and Model Based Control
Vibration-Based Damage Detection under Changing Environmental and
Operational Conditions Monitoring, Evaluation and Control for Life-
Cycle Performance of Intelligent Civil Structures; High Precision
Adaptive Space Structures; Deployable Structures; SHM System for
Monitoring and Prediction of Cracks Development in Concrete
Structures; Smart Composite Device for Structural Health Monitoring;
Real-Time Smart Abstract Shape Identifiers; Safety Assessment of
Bridge Structures Using Ambient Vibration; Chapter 4: Structural Health
Monitoring and Control

Digital Wireless Solutions for Structural Control Structural Control
Issues in New Generation Offshore Wind Energy Plants; Structural
Health Monitoring of a Tall Building with Huge Floating Platform;
Development of a Visualized Data Management System for Life-Cycle
Health Monitoring of Civil Structures; Ultrasonic Guided Wave
Monitoring of Railroad Tracks; NDE/SHM of Underwater Structures: A
Review; Magnetic Flux Leakage Sensing-Based Steel Cable NDE
Technique Incorporated on a Cable Climbing Robot for Bridge
Structures

Sensor Location Analysis in Nonlinear Acoustics Used for Damage
Detection in Composite Chiral Sandwich Panels A Comparative
Assessment of Two SHM Damage Detection Methods in a Laboratory
Tower; Keywords Index; Authors Index

Sommario/riassunto

The 27 peer-reviewed papers collected here together offer a plenitude of up-to-date information on "Embodiment Intelligence in Structures and Integrated Systems". The papers are conveniently arranged into: Chapter 1: Smart Materials, Sensors, Actuators, MEMS, Chapter 2: Integration Technologies, Chapter 3: Smart Structures and Integrated Systems, Chapter 4: Structural Health Monitoring and Control. Review from Book News Inc.: Approximately 800 papers selected from the conference are published in 10 volumes, each documenting a symposium. This seventh volume is edited by Peitro Vincenzini, Fabio C
