

|                         |   |
|-------------------------|---|
| 1. Record Nr.           | UNINA9910463928003321   |
| Titolo                  | Electromagnetic nondestructive evaluation (XVI) // edited by Joao M.A. Rebello, Federal University of Rio de Janeiro, Brazil, Fumio Kojima, Kobe University, Japan and Tomasz Chady, West Pomeranian University of Technology, Szczecin, Poland   |
| Pubbl/distr/stampa      | Amsterdam : , : IOS Press, , [2014]<br>©2014  |
| ISBN                    | 1-61499-354-8   |
| Descrizione fisica      | 1 online resource (344 p.)  |
| Collana                 | Studies in applied electromagnetics and mechanics ; ; volume 38   |
| Disciplina              | 620.11278   |
| Soggetti                | Nondestructive testing<br>Eddy current testing<br>Electronic books.   |
| 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 and index.  |
| Nota di contenuto       | <p>""Title Page""; ""Preface""; ""Conference Organization""; ""List of Participants""; ""Contents""; ""Advanced Sensors""; ""Reliability Assessment of EMAT-NDE System for Pipe Wall Thinning Management""; ""Evaluation of Advanced Sensor Types Under Harmonic Excitation in ECT""; ""The High-Resolution Magnetic Camera: A Novel Sensor for Eddy Current Testing""; ""Hysteresis Characteristic and Repeat Accuracy of Magnetic Type Tactile Sensor""; ""Magnetic Field Sensor Utilizing Fiber Bragg Grating""; ""Analytical and Numerical Modeling""</p> <p>""Electromagnetic Inverse Analysis of Inclined Defect for Ferromagnetic Structural Materials""""Numerical Models for Composite Materials in E-NDT""; ""Uncertainties of MFL Signal Inversion and Worst-Case Defect Depth Estimation Using a Numerical Model ""; ""Lorentz Force Eddy Current Testing - Model Experiments and Numerical Calculations for Deep Lying Defects""; ""Noniterative Methods for Real Time Imaging of Conducting Materials""; ""Three-Dimensional Numerical Investigations of Lorentz Force Eddy Current Testing""</p> <p>""Large Scale 3D FEM Electromagnetic Simulations and Validations for FBR Steam Generator Tubes""""ECT Simulation of Complex Narrow</p> |

Cracks in Planar Multi-Layered Structures""; ""Numerical Modelling of Eddy-Current Testing in Tubes with Non-Canonical Wall Profile Using Modal Description of the Sources""; ""Systems and Techniques for Electromagnetic NDE""; ""Using the Barkhausen Noise Frequency Spectrum for Case Depth Estimates""; ""Electromagnetic NDT System for Inspection of Train Hollow Axles""; ""Artificial Neural Networks and Fuzzy Logic in Nondestructive Evaluation""  
 ""Quantitative Evaluation of Dielectric Medium Arising in Cable Degradation Using Microwave Guided Measurement System""  
 Automatic Checking of Forging Press Tool Wear Through 3D Inspection""; ""High Lift-Off Stress Measurement Using Electromagnetic Acoustic Resonance""; ""A Modified Approach to Accurate Crack Depth Estimation in ACPD Technique""; ""Eddy-Current Interaction Between a Probe Coil and a Conducting Plate with a Cylindrical Borehole""; ""Time Series Data Mining in Eddy Current Nondestructive Evaluation; Application to Nuclear Fuel Cladding Examination""  
 ""Characterization of Materials and NDE of Cracks""""Advances in Electromagnetic NDE Techniques for Materials Evaluation""; ""EM Material Characterization of Conductor Backed Media Using a NDE Microstrip Probe""; ""Radiographic Inspection of Composite Materials""; ""Characterization of Surface Cracks Through the Local Magnetic Field Induced by Eddy Currents""; ""Real-Time Monitoring of Crack Growth Behaviour During Impact and Compact Tension Test with Non-Destructive Testing""  
 ""Eddy Current Measurements of Electrical Conductivity in Specimens of Zircaloy-4 with Different Hydrogen Concentrations""

---

## Sommario/riassunto

Electromagnetic Nondestructive Evaluation (ENDE) is the process of inducing electric currents, magnetic fields or both within a test object to assess its condition by observing the electromagnetic response. An important tool in fields as diverse as engineering, medicine and art, it does not permanently alter the object being tested, thus proving invaluable for product evaluation, troubleshooting and research. This book presents the proceedings of the 17th International Workshop on Electromagnetic Nondestructive Evaluation (ENDE), held in Rio de Janeiro, Brazil, in July 2012. ENDE workshop is

---