1. Record Nr. UNINA9910794211303321

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Titolo	Electromagnetic Non-Destructive Evaluation (XXIII)
Pubbl/distr/stampa	, : IOS Press, Incorporated, , 2020 ©2020
ISBN	1-64368-119-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (314 pages)
Collana	Studies in Applied Electromagnetics and Mechanics ; ; v.45
Altri autori (Persone)	GaoB
Disciplina	620.1/1278
Soggetti	Magnetic testing Electromagnetic measurements Nondestructive testing Conference papers and proceedings.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Title Page -- Preface -- Conference Organization -- Group Photograph -- Contents -- Eddy Current Testing and Evaluation -- Study on Effect of Electromagnetic Characteristics of Deformed 304 Stainless Steel on Eddy Current Testing -- Eddy Current Testing of the Lightning Strike Protection Layer in Aerospace Composite Structures -- An Eddy Current Method to Evaluate Local Wall Thinning of Carbon Steel Pipe -- Research on Analysis of Eddy Current Response to Lay Length of Wire Ropes -- Analysis of Lift-Off Effect on Transmitter-Receiver Probe in Eddy Current Testing -- Evaluation of Eddy Current Response Due to the Applied Stress on a Steel Plate Using Phase Diagram -- Advanced Sensors -- Capacitive Imaging for Adhesive Bonds and Quality Evaluation -- Design of Power Grid Intelligent Patrol Operation and Maintenance System Based on Multi-Rotor UAV Systems -- Edge Detection of Metal Thickness of Electromagnetic Acoustic Transducer Based on Super-Heterodyne Phase-Sensitive Detector -- Design and Application of a Magnetoelectric Composite Sensor for Pipeline Defect Detection -- Analytical and Numerical Modelling -- Modeling of Non-Linear and Hysteretic Magnetization Effects in Transient Potential Drop Measurements -- Numerical Investigation on Faults Diagnosis for AC Induction Machine by Magnetic Flux

Distribution -- Simulation and Experimental Study of Closed Crack Detection by Ultrasonic Nonlinearity Under Electromagnetic Loading -- Numerical Simulation on Stress Measurement with Eddy Current Thermography -- Tensor Based Finite Element Model for the Calculation of Leakage Field in Magnetic Flux Leakage Testing -- Validation of the Reduced Vector Potential Formulation with the DtN Boundary Condition -- Investigation of Beam Features of Unidirectional Rayleigh Waves Electromagnetic Acoustic Transducers (EMATs) by a Wholly Analytical Solution.
Material Characterization -- Study on the Mechanism and Application of Applying Magnetic Barkhausen Noise to Evaluate Dislocation Density and Plastic Deformation -- Corrosion Evaluation of Steel Rebar Using Electromagnetic Induction Method -- Impact Damages Detection on CFRP Using Eddy Current Pulsed Thermography -- Research on Stress Detection of DC01 Steel via Barkhausen Noise -- Dependence of Coercivity and Barkhausen Noise Signal on Martensitic Stainless Steel with and without Quench -- An Investigation of Corrosion Progression Using Laser Profilometry -- Evaluation of Fatigue Damage in 304 Stainless Steel by Measuring Residual Magnetic Field -- Prediction of the Hardness of X12m Using Barkhausen Noise and Chebyshev Polynomials Regression Methods -- Inverse Problem and Signal Processing -- Sensitivity Analysis for the Inverse Problems of Electromagnetic Nondestructive Evaluation -- Data Analysis of Magnetic Flux Leakage Detection Based on Multi-Source Information Fusion -- A Signal Processing Method for Steel Plate Thickness Measurement Using EMATs -- Fast Localization of Impact Damage on Woven CFRP Based on Sparse Microwave Imaging -- Characterization and Imaging of Localized Thickness Loss in GFRP with Ka-Band Microwave Open-Ended Waveguides -- Multi-Channel IoT-Based Ensemble-Features Fault Diagnosis for Machine Condition Monitoring -- Application of Compressed Sensing in NB-IoT-Based Structural Health Monitoring of Rail Tracks -- Artificial Intelligence in ENDE -- Data Augmentation and Artificial Neural Networks for Eddy Currents Testing -- Corrosion Evaluation Using Clustering Method Based on Eddy Current Pulsed Thermography -- Industrial Applications of ENDE -- A Parallel Wire Cable Tension Testing Method Based on a Permanent Magnetizer -- Passive Method for Monitoring Atmospheric Phenomena by Evaluating the Cellular Network Signals.
Developments in GPR Based NDT for Ballastless Track of High-Speed Railways -- Instrumental Configuration of Electromagnetic Thermography and Optical Thermography -- Subject Index -- Author Index.