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| 1. Record Nr.           | UNINA9910789105303321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Titolo                  | Mechanical engineering and instrumentation : selected, peer reviewed papers from the 2013 International Conference on Mechanical Engineering and Instrumentation (ICMEI 2013), December 31, 2013 - January 2, 2014, Brisbane, Australia / / edited by Wei Deng                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Pubbl/distr/stampa      | Zurich, Switzerland : , : TTP, , 2014<br>©2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ISBN                    | 3-03826-390-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Descrizione fisica      | 1 online resource (384 p.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Collana                 | Applied Mechanics and Materials, , 1662-7482 ; ; Volume 526                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Disciplina              | 681.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Soggetti                | Engineering instruments<br>Physical measurements<br>Mechanical engineering laboratories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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 and indexes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Nota di contenuto       | Mechanical Engineering and Instrumentation; Preface and Organizing Committee; Table of Contents; Chapter 1: Materials Science and Materials Processing Technology; Research on Milling Parameters Optimization Based on Surface Residual Stress for Aviation Stainless Steel; An Analysis of Electromagnetic Sheet Metal Forming Process; Cracked ITO on Polyester Film Substrates for Electro-Optic Applications; Containerless Processing in the Study of Metastable Solids from Undercooled Melts<br>Experimental Research on Surface Roughness and Topography of Grinding Ultra-High Strength Steel Aermet100 with CBN WheelStudy on Preparation and Photocatalytic Activity of Photocatalyst Made from Ti-Bearing Blast Furnace Slag; Research of the Surface Changes in the Modification Process of Activated Carbon; Study of Method for Determination of Thermal Conductivity of Automotive Interior Materials; Study on Contrastive Experiment of Full-Scale Concrete Beam Strengthened with Near-Surface-Mounted and Externally-Bonded Carbon Fiber Plate<br>Decay Characteristic of Gallium Nitride Photocathode in a High Vacuum |

SystemLinear Polarization Method Research of Quantitative Detection Based on Concrete Reinforcement Corrosion; Nondestructive Testing of Composite Bonding Structure Using Guided Wave; The Application and Development of Composite Material Detection Using Dry Coupled Acoustic Technology; A Novel Method to Fabricate Silicon-Beam with Polygon Section Based on Thermal Oxidation Layer Protection Technique; Study on the Effects of the Preparation Conditions on the Combination of Eosin Dye and TiO<sub>2</sub>

Chapter 2: Computational and Applied MechanicsMechanic Models for Structure Health Monitoring Based on Wireless Sensors Networks Positioning; Measuring Natural Frequency of Large Control Moment Gyroscope; Analysis and Simulation of Stepper Motor Disturbance Considering Structural Coupling; Application of a Method on Optimization of Thin-Walled Column's Crashworthiness Based on Metamodel; The Research on Grounding Pressure Distribution of Tracked Travelling Mechanism; Research on the Method of Numerical Calculation for Hydrodynamic Parameters of Underwater Vehicle Modal Analysis of Transient Liquid Sloshing in Partially-Filled TanksTransient Liquid Sloshing in Partially-Filled Tank Vehicles; A Improved Particle Swarm Optimization Algorithm for the Application with Boundary-Layer Problems of Power-Law Fluids; Diffraction of Elastic Waves by a Cylindrical Nanohole; Center Track Analysis and Simulation Considering Effect of Vortex and Perturbation of Cutting Fluid on BTA Boring Bar; Fault Mechanism Analysis and Characteristic Extraction for Multi-Disc Clutch; Redundant Actuation Investigation of a 5-DOF Parallel Robot  
Research on the Improvement of Technology of Low Pressure Loss and Wide Range Swirlmeter

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#### Sommario/riassunto

Collection of selected, peer reviewed papers from the 2013 International Conference on Mechanical Engineering and Instrumentation (ICMEI 2013), December 31, 2013-January 2, 2014, Brisbane Australia. The 64 papers are grouped as follows: Chapter 1: Materials Science and Materials Processing Technology; Chapter 2: Computational and Applied Mechanics; Chapter 3: Design and Manufacturing; Chapter 4: Automation, Control, Information Technology and MEMS

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