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Titolo	Mechatronics and computational mechanics II : selected, peer reviewed papers from the 2013 2nd International Conference on Mechatronics and Computational Mechanics (ICMCM 2013), December 30-31, 2013, Frankfurt, Germany / / edited by Abdel Hamid Ismail Mourad and Jozsef Kazmer Tar
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ISBN	3-03826-410-5
Descrizione fisica	1 online resource (359 p.)
Collana	Applied Mechanics and Materials, , 1662-7482 ; ; Volume 527
Disciplina	621
Soggetti	Mechatronics - Simulation methods Manufacturing processes - Mathematical models Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes indexes.
Nota di contenuto	Mechatronics and Computational Mechanics II; Preface and Committees; Table of Contents; Chapter 1: Materials Research; Carbon Fiber Reinforced the Cracking Framework Top Side Columns Caused by Roof Temperature Deformation; Effect of Coarse Aggregate Type on the Residual Velocity of Rigid Projectile Perforating Concrete Target; Nanowelding of Single Walled Carbon Nanotubes onto Electrodes Using Molecular Dynamics Method; Preparation Process of Long Fiber Reinforced Impact Polypropylene Copolymer Composites The Exploitation of Environmentally Friendly Materials for Humane Care in Children Postoperative RecoveryThe Mechanical Properties of Cement Reinforced Loess and Pore Microstructure Characteristics; The Study for Non-Destructive Quantification Method of Reinforcement Corrosion Degree Based on Electrochemical Detection and Finite Analysis Technology; Chapter 2: Applied Mechanics; A Case Study on the Air Flow Characteristics of the Hirobo-FALCON 505 Controllable Helicopter's Main Rotor Blade; Computational Analysis of a Magnetohydrodynamic Flow in an Electrically Conducting Hairpin Duct

Flow Regime Identification for Wet Gas Flow Based on Kurtosis Feature of Flow-Induced Pipeline Vibration Numerical Modeling on Low Velocity Impact on a Foam Core Sandwich Panel; Research on Horizontal Well Inhibiting Water Coning and Tapping the Potential of Remaining Oil; Research on the Aero Dynamicity of Steady Wing of Non-Parachute Terminal Sensitive Projectile; Stress Analysis and Applications of Sucker Rod in Deviated Wells; Study on Aftershocks Triggering by Static Stress Changes of the Minxian-Zhangxian 6.6 Earthquake Study on the Production Decline Laws for Vertical Fracture Well in Low-Permeability Gas Reservoirs The Numerical Simulation and Performance Analysis of the Vortex Pump for Solid-Liquid Two Phase Medium; Chapter 3: Design, Modelling and Simulation; Analysis of Modal and Seismic Property of Oil Storage Tanks; Calculation of Kill Probability for Kinetic Energy Rod against TBM Warhead; Design for Disassembly Based on Substance-Field Analysis; Optimization of Incremental Sheet Metal Forming Parameters by Design of Experiments Overview of Visualization Tool as an Experimental Method in Iterative Participatory Design Research for Calculation Model of Allotypic Pumping Unit Load; Research of Front-End Modeling Design for a SUV Based on Self-Piercing Riveting Anti-Fatigue Design; Solving the Deflection Problem of Laptop Casing Structure by Finite Difference Method; Dynamic Analysis on a Cable-Driven Interventional Active Catheter Using Kane's Method Combined with Screw Theory; Numerical Studies on the Performance of Saccardo Ventilation System in Emergency Fire Scenarios Design and Optimization of Urban Signal Fuzzy Controller Based on IQPSO

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#### Sommario/riassunto

Collection of selected, peer reviewed papers from the 2013 the 2nd International Conference on Mechatronics and Computational Mechanics (ICMCM 2013), December 30-31, 2013, Frankfurt, Germany. The 62 papers are grouped as follows: Chapter 1: Materials Research, Chapter 2: Applied Mechanics, Chapter 3: Design, Modelling and Simulation, Chapter 4: Robotic, Sensors and Control Systems, Chapter 5: Information and Computer Technologies In this collection, engineers and other scientists from Asia, Iran, Algeria, and Europe present 62 papers from the Second International Conference on Mechatronics and

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