Record Nr. UNINA9910462523603321 Advances in material engineering and mechanical engineering: **Titolo** selected, peer reviewd papers from the International Conference on Material Engineering and Mechanical Engineering, August 20-21, 2011, Wuhan, China / / edited by Liang Gao Pubbl/distr/stampa Durnten-Zurich, Switzerland:,: Trans Tech Publications,, [2011] ©2011 **ISBN** 3-03813-537-2 Descrizione fisica 1 online resource (150 p.) Collana Applied mechanics and materials, , 1660-9336;; volume 69 Altri autori (Persone) GaoLiang Disciplina 621 Soggetti Materials Mechanical engineering 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 Advances in Material Engineering and Mechanical Engineering: Preface and Committee; Table of Contents; Finite Element Analysis of Bending Resistance for RC Beams Strengthened with AFRP Sheets: Structure Information of Barium Hexaferrite and Strategies for its Syntheses; Platelet Adhesion on Silicon Modified Carbon Nanotubes Films; Simulation and Optimization of U-Bending Springback Using Genetic Algorithms; Load and Deformation Properties of Steel Fiber Reinforced Concrete ShearWall; Study on Control of Hydraulic Disc Brake System Based on PWM High Speed On/Off Valve Study on Statistical Damage Softening Constitutive Model and Determination of Parameters for Rock Based on Lognormal DistributionStrain Fatigue Behavior of Thin-Walled Tubes of Zr-1Nb and Zr-4 and Thin Plates of N18 at Elevated Temperatures; Simulation for Fatigue Crack Propagation Behavior Based on Low Cycle Fatigue Critical Damage: Design of an Experimental Platform for Hydraulic Servo System: Target Location and Accuracy Analysis in near Space Bistatic

Radar; Interfacial Stress Analysis of Fiber Sheet/Steel Plate-Reinforced

Concrete Beams with Cracks under Tension and Bending

Design of Automatic Clutch System and Simulation of Engagement Process for AMTImpact Resistance and Energy Absorption of Functionally Graded Cellular Structures; Sensitivity of the Carbon Fiber Interface in Epoxy; Investigation of the Process Capability of Water Cavitation Peening and Shot Peening Processing; Hybrid KPCA-SVM Method for Pattern Recognition of Chatter Gestation; Characterization on Duplex Treated Coating Fabricated by Laser Cladding and Active Screen Plasma Nitriding; The Study of TiC/C Composite Fiber by Chemical Vapor Deposition

Experimental Studies and Technology Process on Phosphor-Gypsum Decomposition for Producing Sulfuric Acid and LimeCRH VIP Seats Human-Machine Scale Analysis; Air Combat Situation Assessment by Gray Fuzzy Bayesian Network; The Research on Chaotic Signal Tracking Algorithm for SR-UKF-PF; Integrated Guidance, Control and Maneuver for Anti-Vessel Missiles Based on Backstepping Method; Integrate Uncertainty in the Process of Prognostics for Electronics; Keywords Index; Authors Index

Sommario/riassunto

This book provided researchers and practitioners with the opportunity of highlighting current research directions and novel applications in materials engineering and mechanical engineering. The topics covered by the papers include functional materials, structural materials, composite materials, automotive engineering, manufacturing processes. It will be a useful reference work for engineers and academics worldwide who are interested in these topics. Review from Book News Inc.: The conference as a whole highlights connections between research in materials and research in mechanics, but some of