Record Nr. UNINA9910818774303321 **Titolo** Advanced materials, mechanics and industrial engineering: selected, peer reviewed papers from the 2014 4th International Conference on Mechanics, Simulation and Control (ICMSC 2014), June 21-22, 2014, Moscow, Russia / / edited by Vinod Kumar and Polyakova Marina Pubbl/distr/stampa Switzerland:,: Trans Tech Publications,, 2014 Switzerland: .: Trans Tech Publications Ltd. . [date of distribution not identified] ©2014 **ISBN** 3-03826-562-4 Descrizione fisica 1 online resource (775 p.) Applied Mechanics and Materials, , 1660-9336; ; Volume 598 Collana Disciplina 620.1 Mechanics, Applied Soggetti Industrial engineering - Examinations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes indexes. Nota di contenuto Advanced Materials, Mechanics and Industrial Engineering; Preface, Committees and Sponsors; Table of Contents; Chapter 1: Materials Science: The Assessment of Material Characteristic Using Vibration Signal Analysis during Drilling Process; 3D M Simulation of Grain Growth Kinetics and the Zener Limit in Polycrystals; Characterization and Corrosion Behavior of Multilayer [TiN/TiCN]n Growth on AISI 316LVM Steel; A Method of Fabricating T Shape Nanochannel on Silicon

and Corrosion Behavior of Multilayer [TiN/TiCN]n Growth on AISI 316LVM Steel; A Method of Fabricating T Shape Nanochannel on Silicon Substrate; Experimental and Numerical Study on Surface Damage of Dual-Phase Steel Sheet during Stamping A Study of TMF Characteristics of Ni-Base Superalloy IN738LCThe Viability of Composite Membrane in Treating Produced Water from Oil and Gas Field in Malaysia; Iterative Taguchi Analysis: Optimizing the Grain Boundary Carbide in Hadfield Steel; Optimization of Heat Treatment in Manganese Steel by Taguchi Method; Effects of Continue Compressing Deformation on Texture of AZ31 Magnesium Alloy; Oxidation Behavior of Fe-15Cu-10Al Ternary Alloys at 700°C; Summary of the Application of Vanadium; Summary of Progress in Extracting Vanadium

Effect of Functional Groups on Interfacial Adhesion Properties of PEEK/Carbon Fiber CompositesExperimental Investigations to Evaluate the Mechanical Properties and Behavior of Raw and Alkali Treated King's Crown (Calotropis Gigantea) Fiber to be Employed for Fabricating Fiber Composite; Tunable Nanostructures and Sers Activities of Sputtered Thin Silver Films; Synthesis of Semi-Aromatic Copolyester with High Molecular Weight; The Pyrolysis Behavior of Alkali Lignin Oxygenized by Hydrogen Peroxide in Ionic Liquid 1-Butyl-3-Methylimidazolium Chloride (IBMImICI)

Effect of Carburizing Atmosphere Proportion on Low Temperature Plasma Carburizing of Austenitic Stainless SteelEffect of Laser Power on Microstructure and Properties of CBN Coating by Laser Cladding on TC11 Titanium Alloy; Effects of Texture on the Fracture Mechanism of AZ31 Magnesium Alloy under Dynamic Impact; Dynamic Mechanical Property Anisotropy of ZA31 Alloy by Equal Channel Angular Pressing: Chapter 2: Applied Mechanics, Mechanical Engineering and Processing Technologies; Orthosis for Surgery Procedures Implementation of Boundary Conditions in Discrete Element Modeling of Rock Cutting under PressureThe Research of the Dynamics of the Manipulator of the Parallel Structure with the Flexible Links; Determination of Cutting Disc Deformation Using Axial Forces Produced during the Cutting Process; Performance Improvement on Axial-Flow Fan by Imposing Proper Frame Ribs; Acoustic-Emission Wave Response to a Dislocation Source in Layered Media; Mechanical Design of Lower Extremity Exoskeleton Assisting Walking of Load Carrying Human Integration of Crashworthiness Aspects into Preliminary Aircraft Design

## Sommario/riassunto

Collection of selected, peer reviewed papers from the 2014 4th International Conference on Mechanics, Simulation and Control (ICMSC 2014), June 21-22, 2014, Moscow, Russia. The 144 papers are grouped as follows: Chapter 1: Materials Science, Chapter 2: Applied Mechanics, Mechanical Engineering and Processing Technologies, Chapter 3: Applied Thermodynamics and Heat Engineering, Chapter 4: Energy Engineering, Chapter 5: Electrical Engineering, Chapter 6: Algorithms, Signal and Data Processing, Monitoring and Identification, Chapter 7: Control Systems, Chapter 8: Mechatronics and Robotics, Chapte