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Titolo	Advanced concepts in mechanical engineering II : selected, peer reviewed papers from a Collection of Papers from the 6th International Conference on Advanced Concepts in Mechanical Engineering (ACME 2014), June 12-13, 2014, Iasi, Romania // edited by Ioan Doroftei, Cezar Oprisan and Aristotel Popescu
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Advanced Concepts in Mechanical Engineering II; Preface and Committees; Table of Contents; Chapter 1: Science of Materials and Processing Technologies; Micro-Alloying Influence on Hot Work Tool Steel Properties; Wear Resistance and XRD Analyses of CMoCuNiCrSiBO Coatings Obtained by Thermal Deposition on OLC45 Substrate; Wear Resistance and XRD Analyses of CNiCrSiBO Coatings Obtained by Thermal Deposition on OLC45 Substrate; Evaluation of Mechanical Properties of Polyester Composite with Graphene and Graphite through Three-Point Bending Test Corrosion Behaviour of a Cermet Deposited Coating in Sulfuric Acid Solution A Study on Plastic Deformations due to Contact Fatigue Wear on a Cermet Coating Deposited by Thermal Spraying Methods; Experimental Determination of the Yield Stress for Copper, Cu_99.75; Silicon Influence on the Cast Iron Structure; Influence of Cooling Rate on Metallographic Structure for Gray Iron, in the Case of Modification with a Mechanical Mixture of Al and FeSiCaMg; FEM Simulation on Uniaxial Tension of Hyperelastic Elastomers

Mathematical Modeling of the Relationship between the Surface Roughness and the Tool-Chip Interface Temperature in Turning
Experimental Studies for Reducing Flux Consumptions in Atmospheric Controlled Brazing of Aluminum Alloys; Comparative In Vitro Study on MgCa Si MgCaSi Alloys, as Biodegradable Implants; White Cast Irons with Acoustic Properties; Influence of the Degree of Cold Drawing over the Wear Test and XRD Analysis of Pipes Used for Dampers; Considerations Concerning the Causes and Effects of the Occurrence of Residual Stresses in Metallic Materials: A Review
Hybrid Particle/Fiber Polymer Based Composites Analysis Based on DMA Data vs. Material Property Predictions Some Considerations Concerning the Differential Scanning Calorimetry of Ultra Tough Plastic Materials; Surface Generation by Material Removal in Manufacturing Processes from Machine Building; Constitutive Parameters of Mechanical Behaviour Law for Poly (Ether-Ether-Ketone) Based Composites with Carbon Nanotubes and Carbon Fibres; Chapter 2: Design of Vehicles and Combustion Engines; Simulating the Torque and Angular Speed Distribution within a Heavy Vehicle's Planetary Gearbox
Using Neural Networks to Modeling Vehicle DynamicsA New Electric Drive System for a Disc Brake System Used in the Vehicle, Experimental Stand; Experimental Study on the Influence of Certain Parameters over Vehicle's Dynamic Behavior; Vehicle Dynamics Study under Uncertainty; Response Time to Sudden Changes in Speed and Load Regimes for Turbocharged Diesel Engine; Aspects of Modeling and Optimizing Air Circulation Currents in a Car Cabin; Simulation of the Free Piston's Movement from the Single Regime Running Thermo-Hydraulic Generator
Human Head-Neck System Behavior during Virtual Impact Automotive Simulations

Sommario/riassunto

Collection of selected, peer reviewed papers from the 6 th International Conference on Advanced Concepts in Mechanical Engineering (ACME 2014), June 12-13, 2014, Iasi, Romania. The 104 papers are grouped as follows: Chapter 1: Science of Materials and Processing Technologies, Chapter 2: Design of Vehicles and Combustion Engines, Chapter 3: Applied Thermodynamics and Heat Transfer, Renewable Energy, Engineering of Thermal Systems, Chapter 4: Technologies and Machines in Agriculture and Food Processing, Chapter 5: Applied Computational Methods in Design and Modeling, Chapter 6: Engineering Manag
