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Titolo	Electronics, mechatronics and automation III : selected, peer reviewed papers from the 2014 3rd International Conference on Electronics, Mechatronics and Automation (ICEMA 2014), August 22-23, 2014, Dubai, UAE // edited by Maode Ma, Z. Afrasiabi and Amanda F. Wu
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Collana	Applied Mechanics and Materials, , 1662-7482 ; ; Volume 666
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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	Electronics, Mechatronics and Automation III; Preface and Committees; Table of Contents; Chapter 1: Advanced Materials Engineering and Processing Technologies; Effect of Solution Casting Temperature on Characteristic of Nafion®-Mordenite Composite Membrane for Direct Methanol Fuel Cell; Studying Mechanical Properties Specially Fatigue Behavior of (Polyether Ether Ketone)/Glass Fiber Composites in Aerospace Applications; The Applications of the Electron Beam Machining Technology in Research of Materials Science; Preparation Technology and Mechanical Properties of Al-6Zn-2Mg-2Cu Aluminum Alloy Effect of B2O3 Glass on the Sintering and Microwave Dielectric Properties of MgTiO3-CaTiO3 Development of Thermal Insulation from Oil Palm Fiber for Chimney of Fire Tube Steam Packaged Boiler; Effect of Furfural on Structure and Charring Properties of Phenolic Resins; Combustion Properties of Briquette Charcoal from Durian Peel; The Analysis of Heavy Metals Pollution in Soil and Ecological Risk Assessment in Estuaries of Jiaozhou Bay, China; Chapter 2: Electronics and Integrated Circuits, Embedded Technology and Applications

New Method to Harmonic Isolation Based on High Selectivity Filter to Control of Shunt Active Filter with Experimental Validation Using DSPACE System; Static Performance of SiGe HBTs at Low Temperature; Supervisory Control and FPGA Based DAQ Card; Research on A.C. Sampling Technique for the Electric Parameters Based on Embedded Linux and Frequency Self-Adapting; A Symmetrical Digital Selecting Type DC-DC Converter with Power Saving Techniques; Design and Analysis of a Fibonacci Switched-Capacitor DC-AC Inverter; Design and Implementation of an Interleaved Boost DC-DC Converter for PEM Fuel Cells  
Design of High-Resolution FPD System Based on Doglegged Sampling; The Study on 24 Bits ADC's Acquisition Dynamic Range Extension Method; Chapter 3: Power System, Heat and Energy Engineering, its Applications; A Protection Scheme of Ac Side Faults of Dc Distribution System; Reliability Evaluation of Mid-Voltage DC Distribution Network with Multiple Topologies; An Equivalent Modeling for Synthesis Load of Distributed Network with Small Hydropower; Research on Optimal Economic Benefit of a Micro-Grid with Area Small Hydropower and New Energy Complementary  
Decision Tree Algorithm for Real-Time Identification of Critical Voltage Control Areas; The Diagnostics System for Power Transmission Lines of 6/10 kV; The Study on Homogeneous Parameters of Light Water Reactor by the Nodal Diffusion Method; Improved Power Transformer Winding Deformation Fault Diagnosis Method; Efficiency of Vortex Tube Enclosure Cooling; Chapter 4: Mechatronics, Control and Automation of Manufacturing; Stabilization and Control of an Autonomous Quadcopter; Robust Control of Weight Compensation of the Sections of Spacraft on the Weightlessness Simulation Bench  
Design of the Production Line Control System of Beverage Filling Based on PLC

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#### Sommario/riassunto

Collection of selected, peer reviewed papers from the 2014 3<sup>rd</sup> International Conference on Electronics, Mechatronics and Automation (ICEMA 2014), August 22-23, 2014, Dubai, UAE. The 72 papers are grouped as follows: Chapter 1: Advanced Materials Engineering and Processing Technologies, Chapter 2: Electronics and Integrated Circuits, Embedded Technology and Applications, Chapter 3: Power System, Heat And Energy Engineering, Its Applications, Chapter 4: Mechatronics, Control and Automation of Manufacturing, Chapter 5: Detection and Monitoring, Signal and Image Processing, Data Mining, Algorithm

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