

Electrodynamic and Mechatronic Systems

Selected, peer reviewed extended papers from the International Symposium on Electrodynamic and Mechatronic Systems (SELM 2013), May 15-18, 2013, Zawiercie, Poland

von
Tomczuk Bronislaw, Waindok Andrzej, Zimon Jan

1. Auflage

Trans Tech Publications 2014

Verlag C.H. Beck im Internet:
www.beck.de
ISBN 978 3 03835 044 6

Table of Contents

Preface and Committees

Touch-Less Java Based Hand Tracking System to Control an Artificial Arm G. Baron, P. Czekalski, D. Malicki and K. Tokarz	1
Analysis of a Position Control Extension on the Model of a Servo-Screw-Press R. Münster, R. Schönherr, H. Schlegel and W.G. Drossel	11
Similarity Estimation for Assessing the Accuracy of a Non-Invasive Identification Method A. Hellmich, S. Hofmann, K. Hipp, H. Schlegel and W.G. Drossel	20
Influence of the Electrodeposition Cathodic Potential on the Composition and Magnetic Properties of CoNi Nanowires A. Moskaltsova, M.P. Proenca, C.T. Sousa, A. Apolinário, J. Ventura, G.N. Kakazei and J.P. Araújo	32
Modeling the Electrical Behavior of Lithium-Ion Batteries for Electric Vehicles F. Quantmeyer and X.B. Liu-Henke	40
Identification of Static Unbalance Wheel of Passenger Car Carried out on a Road K. Prażnowski, S. Brol and A. Augustynowicz	48
Comparison of Electromagnetic Coil Launcher Model with Real-Device Characteristics M. Kondratiuk and Z. Gosiewski	58
Engine Control Unit Testing by Hardware-in-the-Loop Simulation J. Mamala, S. Brol and M. Graba	67
Technique for Analysis of the Spatial Field Distribution in Tapered Wire Medium L.I. Kozhara, S.Y. Polevoy and I.V. Popov	75
Introduction to the Conception of Combustion Process Onboard Monitoring System A. Bieniek	83
Mechatronic Design of an Integrated Vehicle Dynamics Control for an Energetic Optimized Battery Electric Vehicle R. Buchta and X.B. Liu-Henke	94
An Synergistic Dynamic 2D FEM Model of an Active Magnetic Bearing with Three Electromagnets A.K. Pilat	106
Determination of Temperature in the Construction of Permanent Magnet Tubular Linear Actuator A. Waindok	113
Modeling and Measurement of Transients for a 5-Phase Permanent Magnet Tubular Linear Actuator Including Control and Supply System A. Waindok	121
Comparison of Magnetic Field Parameters Obtained from 2D and 3D Finite Element Analysis for an Active Magnetic Bearing D. Wajnert	130
Influence of Anisotropy on Specific Loss Components in Grain Oriented Electrical Steel W.A. Pluta	138
Calculation and Verification of Magnetic Field Parameters in Axial Active Magnetic Bearing P. Graca	143