

Table of Contents

Preface

Application of a Visual Measurement Technique to the Assessment of Electrodynamic Stamping

J. Bednarczyk and A. Sioma 1

Modified Clipped-LQR Method for Semi-Active Vibration Reduction Systems with Hysteresis

M. Sibiela, W. Rączka and J. Konieczny 10

Phenomena Occurring during the Electro-Dynamic Forming of Non-Ferrous Pipe Elements

A. Kot 23

Micromechanical and Tribological Properties of Nanocomposite nc-TiC/a-C Coatings

M. Kot, T. Moskaiewicz, B. Wendler, A. Czyrska-Filemonowicz and W. Rakowski 36

Testing of Throttle Valve Prototype Controlled by Piezoelectric Stack

J. Pluta and M. Sibiela 47

Mathematical Model of a Shape Memory Alloy Spring Intended for Vibration Reduction Systems

W. Rączka, J. Konieczny and M. Sibiela 65

Automated Determination and On-Line Correction of Emissivity Coefficient in Controlled Cooling of Drop Forgings

P. Skubisz, P. Micek, J. Śińczak and M. Tumidajewicz 76

Fuzzy Logic Control of Rotational Inverted Pendulum

I. Dominik 84

Advanced Controlling of the Prototype of SMA Linear Actuator

I. Dominik 93

Special Application Magnetorheological Valve Numerical and Experimental Analysis

S. Kciuk and P. Martynowicz 102

Model of a Squeeze Mode Magnetorheological Mount

J. Gołdasz and B. Sapiński 116

Evaluation of the Operational Parameters of Ropes

A. Sioma and A. Tytko 125

Self-Excited Travelling Waves as a Model of Cable Galloping

J. Snamina 135

Energy Dissipation in Three-Layered Plate with Magnetorheological Fluid

J. Snamina 143

Model Testing of Flow Phenomena in the Squeeze Chamber of a Cold-Chamber Diecasting Machine

J. Stojek and R. Dańko 151

Study of Accumulated Defects of Steel Wire Ropes

M. Lesňák, J. Foukal, L. Slivečka and J. Trojková 159

Construction and Simulation of a 2S1 Tracked Vehicle Model and its Verification Using Vertical Forces on the Road Wheels while Overcoming a Single Obstacle

T. Nabagło, A. Jurkiewicz, M. Apostoł and P. Micek 168