

TABLE OF CONTENTS

Preface

Jan Bartošek, Tomáš Kroupa, Robert Zemčík & Vladislav Laš:	
Identification of Impact Force and Impact Location on Prismatic Beam	9
Jiří Blekta, Jiří Petříček, Josef Mevald, Peter Bocko & Michal Sivčák:	
A New Cab and Seat Mount of Bucket Wheel Excavator Schrs 1320.....	13
Peter Bocko, Josef Mevald, Jiří Blekta, Iva Petriková & Aleš Lufinka:	
Research of Multi-Degrees Vibroisolation of an Operator in Wheel-Excavator	17
Pavel Březný:	
Multiscale Problems of Mechanics	21
Adam Civín & Miloš Vlk:	
Analysis of Calibration Coefficients for Incremental Strain Method Used for Residual Stress Measurement by Ring-Core Method.....	25
Radoslav Darula, Juraj Stein & Sergey Sorokin:	
On Modelling of an Electromagnetic Semi-Active Vibration Control System.....	29
Róbert Ďurka:	
Buckling Analysis of Thin-Walled Structures	33
František Fojtik & Martin Fusek:	
Experimental Verification of Conjugated Strength Criterion	39
Karel Frydryšek, Leopold Pleva & Pavel Koštial:	
New Ways for Designing External Fixators Intended for the Treatment of Open and Unstable Fractures	43
Martin Šrám:	
The Plastic Strain Calculation Formula Using the Model of Cyclic Deflection Curve During Monitoring Process.....	49
Agnieszka Główacka-Kwiecień, Katarzyna Jochymczyk-Woźniak & Paweł Jureczko:	
The Assessment of Gait Parameters for Healthy Children and Children with Neurological Disorders.....	53

Michal Hajžman, Pavel Polach, Roman Pašek & Jaroslav Václavík: Theoretical and Experimental Investigation of Large Gearbox Dynamics	55
Radim Halama, Jan Szweda, Zdeněk Poruba, Petr Horyl, Anna Plchová & Milena Hrudičková: Inovation of Education on Faculty of Mechanical Engineering by CAD/CAE/CAM Workplace Introduction	59
Ferdinand Havelka, Marián Zuščík & Miloš Musil: Utilization of the Equivalent Linearization Method in the Steady-State Response Simulations of a Half-Car Model with Non-Linear Magnetorheological Dampers	63
Roland Jančo & Róbert Berky: Numerical Approach of Finding Material Properties of Measured Indentation Curves	67
Edyta Kania: Analysis of the Influence of the Shock Wave of the Blast on the Occupants of Military Vehicles	71
Krzysztof Kawlewski & Eugeniusz Świtoński: Minimization of Payload Swing in Gantry Crane Model Using Fuzzy Logic	75
Petr Lorenc, František Palčák & Luboš Magdolen: Determination of Dynamic Load Acting on Chassis of Car	79
Tomasz Łosień, Paweł Jureczko & Katarzyna Urbańczyk-Łosień: Biomechanical Analysis of Gait Among Children With PCI - Pilot Trial	83
Matúš Margetin: Fatigue Life Time Analysis of Notched Component	87
Bohdana Marvalová & Jarmil Vlach: Application of Magnetoelastic Elastomer as Tunable Spring-Damper.....	91
Ondřej Novák & Michal Petruš: Measurement and Simulation of Contact Pressure of Mattresses for Immobile Patients	95
Michal Petruš & Jan Petřík: Optimization of the Headrests Seat According the Signal Whiplash	99

Ondřej Prejzek:	
Micromechanical Simulation of a Dental Composite with a Difference between Tensile and Compressive Stiffness.....	103
Ladislav Řoutil, Václav Veselý & Stanislav Seitl:	
Numerical Study of Wedge-Splitting Test on Concrete Specimens.....	107
Edyta Sacha, Dagmara Tejszerska, Dawid Larysz, Marek Gzik & Wojciech Wolański:	
Computer Method in Craniosynostosis.....	111
Doubravka Středová & Petr Paščenko:	
Influence of Initial Imperfections on Spherical Caps Subjected to External Pressure	115
Martin Ševčík, Pavel Hutař & Luboš Náhlík:	
Stress Distribution Description in the Vicinity of The Crack Front in the Case of Thin Specimens	119
Jan Škoda:	
Using of Chirp Signals for Resonance Determination	123
M. Šofer, R. Halama , F. Fojtik & L. Václavek:	
Comparison of Current Test Machine With Its New Concept in Terms of Contact Fatigue Research on VŠB-TUO	127
Petr Tomek & Petr Paščenko:	
Loss of Stability of Laterally Loaded Cylindrical Shell.....	131
M. Zouhar, P. Hutař, L. Náhlík & L. Vallet:	
Fracture Description of Two-Layer Pipe with Polypropylene Protective Layer	135
Marian Zuščík, Ferdinand Havelka & Miloš Musil:	
Design of Semi-active Damper and Closed Loop Controller for Vehicle Suspension Where No Sensors Are Required.....	139
Advertisements	143