26th DAAAM International Symposium on Intelligent Manufacturing and Automation 2015 (DAAAM 2015)

Zadar, Croatia
21 – 24 October 2015

Volume 1 of 2

Editor:

B. Katalinic

ISBN: 978-1-5108-1839-2

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2015) by Danube Adria Association for Automation and Manufacturing (DAAAM)
All rights reserved.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact DAAAM International Vienna
at the address below.

DAAAM International Vienna
Karlsplatz 13/311, A-1040
Wien, Austria, European Union

Phone: 0043-1-58801-31121
Fax: 0043-1-58801-31199

secretary@daaam.info

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

CONTENTS

CONTENTS.....iii

AUTHOR INDEX.....ix

Katalinic, B.: *Preface*	0001
Andreev, V.; Kirsanov, K. & Pryanichnikov, V.: *Geographically Distributed "Multi-Operator" Control for Mechatronic Devices via the Internet*	0004
Buchmeister, B. & Palcic, I.: *Indicator for Project Optimization with the Cost-Time Investment Criterion*	0012
Neumann, P.; Houser, J.; Pospisilik, M.; Skocik, P. & Adamek, M.: *Some Methods for Electronic Component Authenticity Assessment*	0018
Skocik, P.; Korbel, J. & Neumann, P.: *Design and Implementation of Lenses for Shaping the Beam of Millimeter Waves in Free Space*	0027
Janacova, D.; Mokrejs, P.; Vasek, V.; Drga, R.; Liska, O. & Krenek, J.: *Mathematic Model of Heat Transport in Materials During Cutting Process*	0035
Perutka, K.: *Electronic Didactic Tool for Primary Schools in Czech Republic*	0040
Kramar, V.: *Investigation of Changes and Development of Mathematical Model for a Drilling Vessel*	0049
Sysel, M.: *Tilt Compensated eComp*	0056
Bajric, H.; Kadric, E. & Pasic, M.: *A Comparison of Same Slope Seasonality and Holt-Winters Smoothing Forecasting Models*	0062
Rados, B. & Rados, A.: *Implementation of multi-criteria decision making in planning traffic systems*	0069
Adamek, M.; Neumann, P.; Pospisilik, M. & Matysek, M.: *Using of GSM Locator in Security Applications*	0075
Andrejiova, M.; Kralikova, R. & Wessely, E.: *The Air Quality Assessment from the Stationary Source Air Pollution*	0082
Kremljak, Z.: *Study of E-Commerce Advantages for E-Supply Chains*	0089
Fedorov, A.; Zobnin, S.; Shkodyrev, V.; Goloschchapov, E. & Potekhin, V.: *Fuzzy Decision Support in Distributed V2V Systems*	0097
Matysek, M.; Adamek, M. & Karafiat, T.: *The Mobile Monitoring and Control of Real Systems*	0104
Damic, V. & Cohodar, M.: *Dynamic Analysis and Visualization of Spatial Manipulators with Closed Structure*	0109
Zhirabok, A.; Filaretov, V. & Pavlov, S.: *Fault Isolation in Technical Systems by Data-Driven Method*	0118
Sysala, T.; Neumann, P. & Mikus, K.: *The Microcomputer Application in Physical Principles Demonstration Model Design*	0125
Chalupa, P. & Novak, J.: *Robust and adaptive control of twin rotor MIMO system*	0133
Stuja, K.; Poszvek, G.; Markl, E. & Aburaia, M.: *Design and Optimization of Pumping Aggregate for Hydraulic Active Car Suspension using Software SolidWorks*	0142
Kolosowski, M.; Duda, J. & Tomasiak, J.: *Statistical process control in conditions of piece and small lot production*	0147
Livinti, P.: *Speed Control of a Permanent Magnet D.C. Servomotor through CompactRIO 9074*	0156
Catana, R. & Cican, G.: *Detailed Gas Dynamic Study of Performances for Two Types Turbofan Configurations*	0166

Comanescu, A.; Comanescu, D. & Dugaesescu, I.: *Leg Mechanism Motion and Structural Characteristics*	0173
Obucina, M.; Dzaferovic, E. & Gondzic, E.: *Numerical Analysis Viscoelasticity Properties Composite of Wood*	0182
Obucina, M. & Akvic, A.: *Influence of Gluing Technology on the Shear Strength in the Gluing of Solid Wood*	0189
Beles, H.; Rus, A.; Dragomir, G.; Mitran, T.; Trusca, D. & Tolea, B.: *Researches Regarding the Continuous Improvement of the ABS (Anti-Lock Braking System) Operation for the Passenger Cars*	0196
Popa, C. L.; Cotet, C. E.; Constantin, F. & Zaleschi Negrea, V. -.: *Optimizing a Beverage Can Production Line by Material Flow Simulation*	0206
Matusu, R.: *Robust Stabilization of a Main Irrigation Canal Pool via Fractional Order PI Controller: A Graphical Investigation*	0212
Matusu, R.: *Control of Interval Systems by Using Two Feedback Controllers*	0217
Olt, J. & Maksarov, V.: *Development of Chatter-Resistant System of Cutting Tool*	0223
Olt, J. & Maksarov, V.: *Cutting Process Simulation on the Basis of Rheological Properties of Metals*	0229
Macku, L. & Samek, D.: *Self - Organizing Migrating Algorithm in Model Predictive Control: Case study on Semi-Batch Chemical Reactor*	0238
Begic-Hajdarevic, D.; Pasic, M.; Vucijak, B. & Cekic, A.: *Statistical Process Control of Surface Roughness during CO2 Laser Cutting using Oxygen as Assist Gas*	0247
Navratil, M.; Kresalek, V.; Kudelka, J. & Martinek, T.: *Design of Scanning System for Mechanoscopic Analysis*	0256
Pascu, N.; Dobrescu, T.; Enciu, G. & Jiga, G.: *Graphic Modeling and Visual Impact on the Structural Design of Packaging in CAD Applications*	0265
Cekic, A.; Rasovic, N.; Obad, M.; Kaljun, J.; Dolsek, B. & Begic-Hajdarevic, D.: *Production of Optimized Layered Products using Intelligent Support*	0271
Pokorny, P.: *Altitude Measurement and Processing of their Values*	0280
Bures, M.: *Time Demands of Virtual Ergonomic Modelling – Experimental Study*	0286
Filaretov, V.; Yukhimets, D.; Zuev, A.; Gubankov, A.; Mursalimov, E. & Gornostaev, I.: *Features of Creating of Workpieces Models by Means of Vision Systems*	0292
Opran, C.; Balota, D. A.; Teodorescu, D. F. & Dobrescu, T. G.: *Modelling Assisted Injection Molding with Magnetic Field for Complex Polymeric Products*	0301
Opran, C.; Ghionea, I. G. & Pricop, M.: *Embedded Modelling and Simulation Software System for Adaptive Engineering of Hydraulic Gear Pumps*	0311
Rusu-Casandra, A. L.; Baciu, F. & Iliescu, N.: *Reflection Photoelastic and Finite Element Residual Stress Analysis of a Torpedo Pot for Cast Iron*	0320
Subramanian, A. & Sun, H.: *A Model for Value Chain Integration in a Vertically Integrated Design and Manufacturing Firm*	0327
Pospisilik, M.; Silva, R. M. & Adamek, M.: *Voltage Controlled Amplifier with Linearized Response to the Controlling Voltage*	0336
Januska, M. & Faifr, A.: *Project Quality Management Lifecycle: A Case Study of the Commencement of Insulin Pen Mass Production*	0343
Poliakov, A.; Pashkov, Y.; Katalinic, B.; Kalinin, M. & Pakhaliuk, V.: *Engineering Biomechanics - A Component of International Educational Project "FESTO-SYNERGY"*	0350
Varacha, P.: *Adaptive Strategy for Neural Network Synthesis Constant Estimation*	0358
Vaskova, H. & Buckova, M.: *Spectroscopic Measurement and Analysis of Fat in Mi*	0365
Iskakov, U. & Breido, J.: *Settings Adaptation System for Current Protection Relay*	0371
Ionkin, I.; Ragutkin, A.; Roslyakov, P.; Morozov, I. & Zaichenko, M.: *Research of the Influence of Flue Gas Parameter Changes on Air Dispersion Processes of Hazardous Substances*	0378
Tikal, F.: *Evolution of Indoor Bullet Trap Design*	0385
Hajdarevic, S. & Martinovic, S.: *The Effect of Dowel Spacing on the Stress and Strain of Case-Type Furniture Corner Joint*	0391
Plsek, S. & Vasek, V.: *Takahashi Controller with Continuous Identification in Fast Response Application*	0400

Katsurin, A.: *Planning Trajectory of the Mobile Robot with a Camera*	0407
Pryanichnikov, V. & Shipovalov, E.: *Terrain modeling for mobile robot control using cross-section curves in nested multi-resolution grids*	0417
Amol, A. S.: *Multicriteria Dynamic Scheduling by Topsis and Goal Programming*	0426
Malakov, I.; Georgiev, T.; Zaharinov, V.; Tzokev, A. & Tzenov, V.: *Demand Modeling for the Optimization of Size Ranges*	0435
Kafol, C.: *Project Risk Management Methodology in Practice*	0445
Raska, P. & Ulrych, Z.: *Comparison of a Modified Self-Organizing Migrating Algorithm with other Selected Optimization Methods used for Different Testing Functions*	0453
Husnjak, S.; Perakovic, D.; Forenbacher, I. & Jovovic, I.: *Identification and Prediction of User Behavior Depending on the Context of the Use of Smart Mobile Devices*	0462
Filaretov, V.; Zhirabok, A.; Zuev, A. & Protcenko, A.: *Identification of Faults in Nonlinear Dynamic Systems*	0470
Sremcev, N.; Cosic, I.; Anisic, Z.; Lazarevic, M. & Gecevska, V.: *Procedure Phases for Configuration System Development*	0478
Andreev, V.; Karbanov, V.; Kharin, K.; Kuvshinov, S.; Poduraev, Y. & Pryanichnikov, V.: *Training Situation Center Based on Three-Dimensional Virtual Studio for Distributed Mobile Robotics Laboratory*	0483
Chval, Z.; Raz, K. & Cechura, M.: *Analysis of Stress Distribution in the Forging Press*	0488
Gregor, M.; Krajcovic, M.; Hnat, J. & Hancinsky, V.: *Genetic Algorithms in the Design and Planning of Production System*	0494
Horman, I.; Busuladzic, I.; Hajro, I. & Beljak, N.: *Optimization of friction parameters in the process of wood welding without additional adhesives*	0501
Bicova, K. & Melichar, M.: *Influence on the Shift the Product Precision of Machining Process and Eligibility*	0508
Kana, J.; Vorel, I. & Ronesova, A.: *Simulator of Thermomechanical Treatment of Metals*	0513
Kuruc, M.: *Machine Tool Loads in Rotary Ultrasonic Machining of Alumina, CBN and Synthetic Diamond*	0519
Raz, K.; Cechura, M. & Chval, Z.: *Upper Crossbeam of Free Forging Press Optimization in Order to Improve Mechanical Properties and Durability*	0524
Zahalka, M.; Stanek, J. & Raz, K.: *Cross Wedge Rolling and Forging Rolls as Additional Devices in Closed Die Forging*	0530
Melichar, M.; Kutlwaser, J. & Kubatova, D.: *Effect of Sweat Aggressiveness on Parameters of Surface Integrity*	0536
Miroslav, Z. & Ivana, Z.: *Influence of the Forging Process of the Machined Material on the Cutting Tool Life*	0542
Isaenko, S.; Sochivko, O. & Dalyaev, I.: *Analysis of Vibration Modelling Validity of Space-Borne Robotic System*	0548
Isaenko, S.; Sochivko, O.; Shardyko, I. & Titov, V.: *Simulation of Manipulator as a Part of Space Robotic System Weightlessness Device*	0554
Ilves, R.; Kuut, A.; Birzietis, G.; Pirs, V.; Vlasov, A. & Olt, J.: *The Difference Between the Physical Properties of Petrol and Alkylate Petrol and Impact on the Exhaust Gas of a Two-Stroke Engine*	0562
Rao, P. S.; Jain, P. K. & Dwivedi, D. K.: *Study and Effect of Process Parameters on External Cylindrical Surfaces of Titanium Alloys by Electro Chemical Honing (ECH) Process*	0570
Totis, G.; Sortino, M. & Belfio, S.: *Wavelet-like Analysis in the Frequency-Damping Domain for Modal Parameters Identification*	0580
Salibekyan, S. & Panfilov, P.: *Database Architecture for Specifying and Modeling Spatio-Temporal Relations*	0589
Ilyukhin, Y. & Kolesnichenko, R.: *Impedance Control of High-Precision Geared Servo Drives with Two Motors for Technological Robots*	0599
Rahmani, M.; Krall, S. & Bleicher, F.: *Numerical investigations on the static stiffness of industrial ball bearing linear guides*	0608
Sivri, S.; Hennersdorf, S. & Krallmann, H.: *Enhanced Method for Quality-fit (ISO 9001) Operations within the Automotive Industry*	0614

Chernus, P.; Sharovatov, V. & Chernus, P.: *Modelling of Two-Way Bellow Actuator Positioning*	0620
Chernus, P.; Sharovatav, V. & Chernus, P.: *Mathematical Model of Proportional Spool Valve*	0626
Krall, S.; Lechner, C.; Nirtl, M. & Bleicher, F.: *Robot based machine hammer peening using an electromagnetic driven hammering device*	0633
Kramar, V.; Dushko, V.; Rodkina, A. & Alchakov, V.: *Neural Network Modeling the Potential of Steels with Different Chrome Content*	0641
Brocal, F.; Sebastian, M. A. & Gonzalez, C.: *Classification proposal of metrological techniques in occupational safety and health*	0648
Leokhin, Y.; Myagkov, A. & Panfilov, P.: *GoMapReduce Parallel Computing Model Implementation on a Cluster of Plan9 Virtual Machines*	0656
Mahmood, K.; Shevtshenko, E.; Karaulova, T.; Branten, E. & Maleki, M.: *Troubleshooting Process Analysis and Development of Application for Decision Making Enhancement*	0663
Nyrkov, A.; Chernyi, S.; Zhilenkov, A. & Sokolov, S.: *The use of Fuzzy Neural Structures to Increase the Reliability of Drilling Platforms*	0672
Schornik, V.; Zetek, M. & Baksa, T.: *Durability of the Cutting Tool with Different Thin Layers when Inconel 718 is Machined*	0678
Schornik, V.; Zetek, M. & Dana, M.: *Modern Trends in Design and Testing of Milling Cutters*	0683
Rusu, A. & Lohan, E.: *Analysis of Real Mobility Records in Urban and Suburban Environments*	0688
Rodríguez Prieto, A.; Camacho Lopez, A. M. & Sebastian, M. A.: *New Decision Methodology for Selecting Manufacturing Codes of Nuclear Reactor Pressure-Vessels*	0693
Kostolny, I. & Kolenak, R.: *Investigation of the Influence of Alloying Elements in Zn-Al Alloy on Thermal and Mechanical Properties*	0699
Kostolny, I.; Kolenak, R. & Barta, J.: *Research of Wettability of In Solder on Al2O3 Ceramic During Laser Beam Heating*	0704
Dana, M.; Zetek, M. & Schorník, V.: *Effect of Cutting Edge Geometry on Cutting Tool Life when Drilling Inconel 718*	0709
Dana, M.; Zetek, M. & Schorník, V.: *Tapping Tool Life when Machining Inconel 718*	0715
Klimov, D. & Poduraev, Y.: *Robotic Flight Follower System for High Speed Recording*	0720
Andreev, V.; Pletenev, P. & Poduraev, Y.: *The Method of Network Control of Robotic Systems of Different Models and Manufacturers*	0727
Ivan, C.; Vujic, M. & Husnjak, S.: *Classification of Security Risks in the IoT Environment*	0731
Hanzl, P.; Zetek, M. & Zetkova, I.: *Testing of Special Ni-Mo Steel and its Suitability for Cutting Tools*	0741
Hanzl, P.; Zetek, M. & Zetkova, I.: *Cellular Lattice Structure Produced by Selective Laser Melting and its Mechanical Properties*	0748
Kroupa, T.; Schornik, V.; Dana, M. & Zetek, M.: *Comparing the Effects of Modifying Milling Tool Geometry on Durability*	0753
Filaretov, V. & Konoplin, A.: *Experimental Definition of the Viscous Friction Coefficients for Moving Links of Multilink Underwater Manipulator*	0762
Polcar, J.; Gregor, M.; Horejsi, P. & Kopecek, P.: *Methodology for Designing Virtual Reality Applications*	0768
Breido, I.; Voytkevich, S.; Em, G. & Kaverin, V.: *Alternative Sources of Supply for Stand-Alone Automation Devices on Supports High-Voltage Lines*	0775
Gebel, E.: *Estimation Workspace of 6 DOF Hauff platform*	0780
Bas, G.; Durakbasa, N. M.; Mankova, I. & Vrabel, M.: *An innovative approach of metrology for high precision and quality machining tool assessment in the integrated production engineering*	0787
Perlova, E.; Platonova, M.; Pankova, A.; Nemova, D.; Petrichenko, M. & Rakova, X.: *The analysis of efficiency using coil meshes with air pockets under plastering composition*	0795
Rubesova, K.; Jirkova, H.; Masek, B. & Vorel, I.: *Effect of Mini-Thixoforming Parameters on Microstructural Evolution in Low-Alloy Steel*	0803
Abramov, A. & Blyankinshtein, I.: *Electronic Control System of Rotating Axes of Long Based Road Train*	0810
Tan, K. L. & Yeo, S. H.: *Cavitation Erosion Study in Deionized Water Containing Abrasive Particles*	0818
Finkeldei, D. & Bleicher, F.: *Investigation of Coolants in Machining of Titanium Aluminides*	0825

Abdessemed, A. C. & Viba, J.: *Aerodynamic and Motion Study of Flapping Wings Vehicle*	0834
Mikulcic, M.; Modric, M. & Sumpor, D.: *Application Possibility of Engine Drivers' Body Segments Ratios in Designing the Cab' Working Environment in Croatia*	0842
Clares Rodriguez, J. M.; Vazquez Martinez, J. M.; Gomez-Parra, A.; Puerta Morales, F. J. & Marcos, M.: *Experimental Methodology for Evaluating Workpieces Surface Integrity in Dry Turning of Aerospace Alloys*	0849
Antos, J. & Kubalcik, M.: *Alternative Approach to Optimization in Model Predictive Control Using Hill Climbing Algorithm*	0856
Lopota, A.; Dalyaev, I.; Shardyko, I.; Kuznetcova, E. & Belezyakov, I.: *Means of Robotic Support for On-Orbit Servicing*	0865
Potapov, A.; Stazhkov, S.; Gradovtsev, A.; Dalyaev, I. & Ohochinsky, M.: *Structures of automatic systems with unstable parameters*	0871
Shah, R.; Park, H. & Lee, G. B.: *Design For Assembly: An approach to increase Design Efficiency of Electronics Home Appliance*	0877
Blyankinshtein, I.; Voevodin, E. & Ruban, A.: *Techniques of Adjusting Opacity Estimates of the Diesel Exhaust Gases*	0883
Cubrova, J.; Vorel, I.; Vancura, F. & Masek, B.: *Effect of Amount of deformation on Microstructure Evolution During Controlled Cooling of Forgings from Finish-Forging Temperature*	0892
Vorotnikov, A.; Bashevskaya, O.; Ilyukhin, Y.; Romash, E.; Isaev, A. V. & Poduraev, Y.: *Geometrical Approach for Industrial Robot Axis Calibration Using Laser Tracker*	0897
Smirnova, E.; Stepanov, D. & Goryunov, V.: *A Technique of Natural Visual Landmarks Detection and Description for Mobile Robot Cognitive Navigation*	0905
Stojkic, Z.; Veza, I. & Bosnjak, I.: *A Concept of Information System Implementation (CRM and ERP) within Industry 4.0*	0912
Spirk, S. & Kepka, M.: *Effects of Dynamic Forces and Strain Rate During Battery-Electric Bus Impact*	0920
Calvino Fernandez-Trujillo, A.; Rivero, A.; Alvarez, M.; Puerta, F. J.; Salguero, J. & Marcos, M.: *Implementing Incremental Sheet Metal Forming on a CNC Machining Centre*	0926
Sedlacek, F.; Lasova, V. & Kottner, R.: *Design of Flexible Composite Bellows Coupling*	0930
Lazarev, I.: *Numerical study on capabilities constructions of electromagnetic acoustic transducers (EMAT) with permanent magnets for inline inspection of pipeline 6"*	0936
Ropus, I.; Carcia, G.; Giorcelli, M.; Tagliaferro, A.; Haramina, T. & Curkovic, L.: *Mechanical Properties of Epoxy/Multi-Walled Carbon Nanotubes Composites*	0940
Hajicek, Z.: *Simulation of Virtual Machine Tool During the Development Phase*	0948
Hnatik, J.; Kutlwaser, J. & Sklenicka, J.: *iMachining Cutting Force Measurement*	0955
Hnatik, J.; Kroft, L. & Kutlwaser, J.: *Constant Chip Volume Machining*	0960
Janda, P. & Polak, R.: *Virtual Prototyping and Optimization of Heavy Machine Tools*	0967
Malael, I.; Dragan, V. & Gherman, G. B.: *Turbulence Intensity Effects on the Vertical Axis Wind Turbine Starting Efficiency*	0974
Boenzi, F.; Digiesi, S.; Facchini, F.; Mossa, G. & Mummolo, G.: *Greening Activities in Warehouses: A Model for Identifying Sustainable Strategies in Material Handling*	0980
Bogachev, A.; Kuzmenko, D. & Lazarev, E.: *The Use of Walking Mechanisms as an Adaptive Suspension of a Planet Rover*	0989
Weingerl, D.; Kubinger, W. & Engelhardt-Nowitzki, C.: *Preceding Vehicle Tracking in Stereo Images via 3D Feature Matching*	0997
Valerga, A. P.; Batista, M.; Fernandez, S. R.; Gomez-Parra, A. & Barcena, M.: *Preliminary Study of the Influence of Manufacturing Parameters in Fused Deposition Modeling*	1004
Dosek, R.; Janku, P.; Bliznak, M. & Varacha, P.: *Secure High Level Communication Protocol for CAN Bus*	1009
Yerofeyev, S.; Ipatov, O.; Markov, S.; Potekhin, V.; Sulerova, A. & Shkodyrev, V.: *Adaptive Intelligent Manufacturing Control Systems*	1016
Janku, P.; Koplik, K.; Dosek, R.; Dulik, T.; Bliznak, M. & Varacha, P.: *Context sensitive fire protection system*	1025

Chrobak, P.; Zalesak, M. & Sehnalek, S.: *Photovoltaics and its Potential Application in the Production of Electricity*	1032
Saikaew, C. & Poolpraserd, C.: *Effect of Rice Husk on the Sand Mold Properties and the Quality of Cast Iron*	1038
Drabek, P.; Zalesak, M. & Oplustil, M.: *The Impact of the Heat Accumulation on Energy Efficiency of Building*	1045
Tolea, B.; Trusca, D.; Antonya, C. & Beles, H.: *The Influence of the Frontal Profile Design of a Vehicle upon the Pedestrian Safety at Low Velocity*	1052
Ivanova, O.; Dushko, V. & Rodkina, A.: *Experimental Researches Automation of Spatial Oscillations of the Floating Ocean Engineering Systems in the Wave Basin*	1059
Korponai, J.; Banyai, A. & Illes, B.: *The Effect of the Demand-Changes on the Inventories*	1068
Fajsi, A.; Tekic, Z. & Moraca, S.: *Open Innovation in Manufacturing SMEs – Integration into Value Networks*	1076
Medojevic, M.: *Analysis of Current Automation Level in Specific Compressed Air System with Model for Optimization*	1082
Gajic, S.; Palcic, I. & Cosic, I.: *Complexity Perspective and Engineering Systems – Novel Approaches*	1091
Gregor, M.; Haluska, M.; Fusko, M. & Grznar, P.: *Model of Intelligent Maintenance Systems*	1097
Rakyta, M.; Fusko, M.; Haluska, M. & Grznar, P.: *Maintenance Support System for Reconfigurable Manufacturing Systems*	1102
Martinek, T.; Kudelka, J.; Navratil, M. & Kresalek, V.: *Characterization of Epitaxial Layers Using Scanning Microwave Microscopy*	1109
Gregor, M.; Grznar, P.; Pedan, M. & Cudrakova, M.: *Knowledge in Healthcare*	1115
Kuncar, A.: *Basic Techniques for Filtering Noise Out of Accelerometer Data*	1122
Jatsun, S.; Savin, S.; Yatsun, A. & Turlapov, R.: *Locomotion Control Method for Patients Verticalization with Regard to their Safety and Comfort*	1129
Ertel, J.; Barta, J. & Maronek, M.: *Case Study of Electron Beam Welding in Automotive Industry*	1138
Chernyshev, V.; Arykantsev, V.; Kalinin, Y.; Gavrilov, A. & Sharonov, N.: *Development of the walking mover for underwater walking vehicle*	1143
Kukushkin, I.; Zavrazhina, A.; Grabenweger, J.; Kildibekov, A.; Katalinic, B. & Haskovic, D.: *Model-based concept for scheduling analysis of packaging lines*	1149
Haskovic, D.; Katalinic, B.; Kildibekov, A. & Kukushkin, I.: *Intelligent Adviser Module for Bionic Assembly Control System: Functions and Structure Concept*	1158
Mansour Fallah, S.: *Multi Agent based Control Architectures*	1166
Galiev, I.; Shiler, A. & Shiler, V.: *Assembly and dynamics tests of newly designed flexible railway wheelset*	1171