

26th International Scientific Conference on Transport Means 2022

Sustainability: Research and Solutions

Online
5-7 October 2022

Part I

ISBN: 978-1-7138-6264-2

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© (2022) by Kaunas University of Technology
All rights reserved.

Printed with permission by Curran Associates, Inc. (2024)

For permission requests, please contact Kaunas University of Technology
at the address below.

Kaunas University of Technology
K. Donelaičio St. 73
44249 Kaunas
Lithuania

Phone: +370 (37) 300 000, 300 421
Fax: +370 (37) 324 144

en.ktu.edu

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Contents

Preface	4
D. Szpica, M. Kuszniar. Computational Determination of Flow Characteristic of the Low-pressure Gas-phase Injector Using the Lumped Method	5
M. Biliaiev, T. Rusakova, V. Biliaieva, O. Berlov, V. Kozachyna, P. Kirichenko. Quick Computing Numerical Model of Pollutant Dispersion in Urban Street Canyon	10
A.D. Hoang, Z. VINTR, D. Valis, Q.T. La. The Effect of on/off Cycling on the Lifetime of a Light-Emitting Diode Used in a Military Vehicle Design	17
V. Štefancová, K. Čulík, T. Hudcovič, S. Kubaľák. Impact of the COVID-19 Pandemic on Urban Public Transport - A Case Study in Slovakia	22
S. Himmetoglu. Integration of Muscle Tone into a Multi-Body Head-and-Neck Model for Crash Applications	27
S. Martinov. Simulation Model of a Rail-Road Container Terminal Described as a Queueing System	33
Y. Krykavskyy, L. Bolibrukh. The Impact of Russian Invasion of Ukraine on the Rail Freight Flows	40
J. Sordyl. Road Weather Condition Variability Analysis and Critical Infrastructure Points Identification Using Mobile Measurement Method	44
Z. Korecki, T. Hoika. Simulation of the L-159 Alca Conducting Anti-Surface Air Operations in Support of a Battalion Task Group	50
X. P. Cu, Z. VINTR, H. A. Bui. Prediction of the Lifetime of Shock Absorbers of Tracked Vehicles Using the Degradation Data	56
I. Lebid, N. Luzhanska, Ie. Lebid. Optimization of the Customs Clearance Process for Goods of Different Nomenclature	61
J. Hanzl, L. Bartuška. Smart City Concept of Waste Logistics and Its Implementation in a Real Environment	68
M. Dzięwiątkowski, D. Szpica. Analysis of the Influence of the Selective Reduction System (SCR) Application for a Diesel Engine on the Emission Level of Nitrogen Oxides (NO _x)	74
S. Lileikis, J. Zakrevskij. Optimization of the Intermodal Forwarding Process Using Digital Technologies	79
M. Lusková, M. Hudáková. Risk Identification of Critical Infrastructure Elements in Road Transport Sector	83
A. Bernatskyi, O. Siora, M. Sokolovskyi, V. Lukashenko, T. Nabok, N. Shamsutdinova, V. Bondarieva. Development of Equipment and Testing the Technology of Semi-Automatic Laser Welding of Railway Carriage Design Elements using a Handheld Tool	89
M. Grdinić-Rakonjac, V. Pajković, B. Antić. Self-reported Behaviour in Montenegro: Driving above the Speed Limit	95
Š. Čorňák, J. Jelínek. Prediction of Engine Oil Quality	100
S. Himmetoglu. Introduction of a Protection System for Rear-Facing Seats in Autonomous Car Crashes	104
N. Calderón-Rivera, I. Bartusevičienė, F. Ballini. Inland Waterway Development as a Mean to Increase Transport Sustainability	110
V. Mígal, S. Arhun, A. Hnatov, M. Shuliak. Evaluating the Quality of Design and Manufacture of Agricultural Tractors by Vibration Characteristics	116

M. Biliaiev, T. Rusakova, V. Biliaieva, V. Kozachyna, O. Berlov, P. Semenenko. Analysis of Temperature Field in the Transport Compartment of the Launch Vehicle	122
M. Kornaszewski, R. Pniewski, M. Chrzan. Support Making Decisions in the Exploitation Issues of Railway Signalling Devices	128
S. Himmetoglu, E.N. Zengin, O. Özkök, B.S. Kara. Acceptance of Autonomous Vehicles in Turkey	134
M. Korbut, D. Szpica. Heat Transfer Consideration in the Modelling of a Piston Pneumatic Engine Operation	140
K. Otersone, A. Vasiljevs. Experimental Investigations of Radio Coverage Conditions in 5G Cellular Mobile Communication Networks for Railway Application	146
J. Matuška, J. Košťálová. Tactile Arrangements for Visually Impaired People – Conceptual Framework	151
O. Krasheninin, O. Obozny, O. Shapatina, I. Kramchanin, O. Lagereva. Decision-Making to Assess the Technical Condition of Locomotive Equipment in Conditions of Uncertainty	157
T. Bibič, T. Cvahte Ojsteršek. Urban Consolidation Centres – What Can We Learn from Their Implementation So Far?	162
E. Kicova, O. Ponisickakova. Customer and its Requirements in Public Transport in Connection with the COVID-19 pandemic	168
W. Loga-Księska. Mobile Monitoring of Fine Particulate Concentrations on City Roads	174
M. Bažant, P. Smoczyński, A. Gill, J. Bulíček. Missing Tracks and Switches – on the Way to Assess Modernised Stations in Terms of their Usefulness for Railway Traffic	180
V. Brusentsov, V. Puzyr, Y. Datsun, O. Brusentsov. The Effect of the Human Personality of a Locomotive Driver on the Professional Integrity Level	186
P. Vittek, T. Dvořáková, S. Stojić, P. Had. Smart Airports and Smart Cities - The Interconnection Concept	190
A. Novák Sedláčková, T. Remencová, J. Nedvídková. Women as Pearls of Air Transport	195
M. Biliaiev, T. Rusakova, V. Biliaieva, P. Mashykhina, K. Rusakova. Predicting Dust Pollution in the Passenger Compartment	206
T. Ciszewski, W. Nowakowski, P. Bojarczak. Application of RAMS Methodology to Computerized Railway Systems	212
F. Škultéty, D. Beňová, M. Janovec. Evaluation of Major EU27 Airports in Terms of their Green Connectivity	218
G. Rognoni, E. Brocco, G. Kyaw Oo D'Amore, M. Biot. Improvements in the Characterization of Viscoelastic Materials for Marine Applications	224
A. Markauskas, E. Limbaitė, M. Savickas. The Baltic Sea Region Ports' Development to Increase Cruise Shipping and Reduce Emissions: the Case of Klaipeda Cruise Ship Terminal Optimal Expansion	230
Y. Krykavskyy, O. Shandrivska, N. Shynkarenko. River Heavy Transport in Emergency Conditions	237
T. Javořík, J. Kruntorád. Infrastructure Conditions for the Operation of Alternative Drive Trains in Regional Passenger Rail Transport	242
R. Pniewski, M. Chrzan, M. Kornaszewski. Deep Learning for Reliability Analysis of Railway Traffic Control Systems	248
S. Himmetoglu, G. Dugan. Development of a Mathematical Tool to Measure Crash Severity in Frontal Impacts	254

A. Vasiljevs, K. Otersone. Mathematical Models of VHF/UHF Radio Wave Propagation in Cellular Mobile Communication Networks	260
G. Myskiv, S. Lykholat. State and Prospects of Restoration of Ukraine's Transport and Logistics System	267
O. Ponisciakova, E. Kicova. Possibilities for Increasing the Strategic Leadership of Transport Companies in Connection with the Covid-19 Pandemic	273
A. Švásta, J. Furch. Evaluation of the Possibility of Adopting Existing Construction for Purposes of Design an Unmanned Ground Vehicle	278
M. Ballay, E. Macurová, P. Kohút, E. Sventeková. Time-Graphic Analysis of a Traffic Accident - Cyclist and Pedestrian	284
R. Łukasik. Analysis of Selected Threats and Risks in the Road Transport of Containerized Cargo for the Tromso-Tana Route, Located in Norway's Arctic Circle	290
M. Vesela, S. Cheberyachko, O. Deryugin, O. Yavorskaya, O. Tretyak, I. Bas. Improving the Passenger Road Transportation Safety Management System	296
Z. Říha, J. Tichý, J. Gnap. The Cost Development in Road Freight Transportation	302
S. Himmetoglu, F.N. Şen, F.T. Ozer. Female Modelling and Protection in Road-Traffic Accidents	308
H. Prymachenko, Ye. Hryhorova, P. Kharlamov, O. Kharlamova, A. Tokarenko. Optimization of Cargo Movement in the Direction of Ukraine - European Countries on the Basis of Multimodal Routes	314
D. Hůlek, M. Novák, D. Řeha, V. Němec. Accident Rate of Different Types of Gliders in the Czech Republic	319
M. Hudáková, P. Lahuta, K. Mäkká. Risk Management in Integrated Management Systems in Transport	323
Ie. Riabov, B. Liubarskyi, L. Overianova, S. Goolak, L. Kondratieva. Mathematical Model of the Electric Traction System of Quarry Railway Transport	330
A. Soczówka, P. Chyliński. International Passenger Railway Connections in Poland after 1989	336
K. Krzikallová, M. Krajňák, M. Mandak, T. Mlčochová. Gasoline and Diesel Tax Burden: The Case of the Czech and Poland Republics	343
V. Volkov, I. Taran, T. Volkova, N. Ponomarova, Z. Kochuieva. Determination of Vehicle Stabilization Parameters During Braking	347
Z. Krobot, A. Švásta, V. Neumann. Diagnostic Tools and Internal Network Architecture of Nowadays Special and Combat Vehicles Operated within the Army of the Czech Republic	353
P. Gavrilovs, J. Eiduks, G. Srautmanis, D. Gorbacovs. Determination of the Chemical Composition and Impact Strength of the M-24 Bolts for Fastening the Rubber-Cord Coupling of EMU Trains	360
K. Nosal Hoy, B. Straszak, K. Solecka, I. Taran, Ya. Litvinova. Assumptions to Implementing Mobility-as-a-Service in the Krakow Metropolitan Area	366
M. Kurhan, D. Kurhan, M. Husak, N. Hmelevska. Innovative Technologies for the Introduction of High-Speed Train Operation (on the Example of Track Maintenance in the Plan)	372
Z. Bulková, M. Dedík, V. Štefancová, J. Gašparík. Proposal of the Systematic Measures to Support Rail Passenger Transport During the Pandemic Period	378
P. Pryciński, J. Murawski, M. Nader, G. Sierpiński. Profitability Analysis of Using Electric Vehicles in Urban Distribution Systems	384
T. Kučera, V. Hendrych. Application of ABC Analysis in Logistics Warehousing Processes: A Case Study	390

O. Cherednichenko, M. Tkach, I. Ratushniak , B. Lychko. Efficiency of the CODAG Ship Power Plant with of Fuel Thermomechanical Treatment	395
G. Vaičiūnas, S. Steišūnas. Comparison of the Effectiveness of Rolling Stock Wheel Damage Detection Systems	400
M. Blatnický, J. Dižo, D. Molnár. Analysis of the Current State of the Issue of Electric Bicycle Structural Design	405
A. Toruń, L. Sokołowska. Field Tests of All-Purpose Interface between Interlocking System and Line Block System	411
Y. Krykavskyy, K. Kalynets, N. Chornopyska. Changing of Global Logistics Flows due to the War in Ukraine	416
Z. Krobot, A. Breznicka, P. Stodola, J. Stodola. Fault Tree in Risk Analysis	424
O. Ischuka, D. Lomotko, M. Lomotko. Logistics Approach in Energy-Efficient Technology for Shunting Work at the Marshalling Station	431
A. Bogajevskiy, S. Arhun, S. Ponikarovska. Estimating the Effect of Technical Controls on Improving the Operational Efficiency of Locomotive Diesel Generators	437
V. Lupták. Proposal for the Possibility of Introducing a New Transport at the JHMD	443
O. Strelko, Yu. Berdnychenko, O. Soloviova, H. Kyrychenko, L. Soloviova, S. Hurinchuk, S. Isaienko. Development of Scheduled Urban Passenger Transportation by Road in Ukraine	447
M. Babyak, J. Kalivoda, L. Neduzha. Simulating the Operation of the Pantograph-type Current Collector	453
V. Nerubatskyi, O. Plakhtii, D. Hordiienko. Improving the Energy Efficiency of Traction Power Supply Systems by Means the Implementation of Alternative Power Sources	459
M. Chrzan, M. Kornaszewski, R. Pniewski. The Concept for the Migration of GSM-R to 4G and 5G	465

26th International Scientific Conference on Transport Means 2022

Sustainability: Research and Solutions

Online
5-7 October 2022

Part II

ISBN: 978-1-7138-6264-2

Contents

Preface	480
J. Bulíček, J. Kleprlík, K. Světlá. Issues of Administrative Processing of Road Offences Detected by Weigh-in-Motion High-Speed Automatic System and Suggestions to Rationalising of this Administration	481
S. Goolak, Ie. Riabov, V. Tkachenko, B. Yeritsyan. The Determination of Power Losses in the Traction Electric Drive Converter of the Electric Locomotive	487
A. Seidlová, M. Ledvinová. Using Cargo Bikes in Personal Logistics – Conditions and Possibilities in the Czech Republic	493
D. Paula, T. König, M. Bauder, F. Petermeier, T. Kubjatko, H.-G. Schweiger. Performance Tests of the Tesla Autopilot and VW Travel Assist on a Rural Road	498
V. Malovichko, R. Rybalka, N. Malovichko, K. Honcharov. Determining the Set of Elements for Automatic Monitoring and Diagnosing the Relay Interlocking System	509
K. Šajbanová, J. Čerňan, F. Škultéty, M. Dendisová. Thermodynamic Analysis of the Conversion of the Auxiliary Power unit AI-9 to a Turbo-prop Engine	515
A. Wagner, A. Anderluh, F. Michelberger, P. Graf, M. Prem. Progress of Optimization in Rail-Based Multimodal Transport Chains	520
A. Lovska, O. Fomin, D. Skurikhin. Determination of the Stress State of the Body of a Hopper Car Transported by Sea	525
M. Kovtanets, O. Serhienko, V. Nozhenko, V. Kyselov, O. Guida, I. Kiva, T. Kovtanets. Increasing the Energy and Environmental Efficiency of Rolling Stock by Increasing the Resource of the Contact Surfaces of the “Block-Wheel-Rail: System	530
A. Suk, M. Ledvinová. The Role of Road Hierarchization in Development of Transport Infrastructure in Urban Areas and Its Links to Urbanism	539
E. Wawrzyn, R. Barcikowska. Joint Undertakings for Research and Development of Railway	545
E. Turan, A. Sari, E. Sulukan, D. Özkan, Ö. Demir, U. B. Çelebi, N. Vardar. Energy System Analysis for Greener Passenger Transportation in İstanbul Strait	551
O. Ievsieieva, I. Pidoprygora, A. Ievsieiev, D. Kovalova. Importance of Compatibility of Financial Statement Indicators in Calculating Financial Standing Indicators for Structural Units of Railway Transport	562
J. Dižo, M. Blatnický, J. Fiačan, S. Semenov, E. Mikhailov. Design of a Steel-Steel Adapter for a Light Rail-Road Vehicle	568
J. Janura, T. Zavodjančík, P. Vertaľ, E. Kolla. Selected Method for Evaluation of Vehicle’s Automated Driving Systems	573
J. Bulíček, D. Šourek, M. Vojtek, N. Mondek, M. Škorupa. Modelling of Structure of Public Transport Lines in the Agglomeration of Pardubice	579
V. Aftaniuk, O. Kiris, D. Danylenko, Y. Korovaichenko, A. Aftaniuk. Simulation of Air Distribution in a Workplace in an Enclosed Space of a Ship	585
K. Čulík, K. Hrudkay, J. Ondruš, R. Grísa. Investigating Households Attitude toward Electromobility	589
M. Kameník, I. Kameníková, L. Capoušek. Importance of Paved Operating Areas for General Aviation Aircrafts in the Czech Republic	595
S. Raksha, P. Anofriev, O. Kuropiatnyk, K. Glavatskij, V. Bohomaz, O. Posmitiukha, S. Volkova. Substantiation of the Parameters of the Bench for Testing of Railway Wheels for Contact and Fatigue	601

Strength

A. Slobodianyuk, G. Abuselidze. Prospects for Increasing the Flight Network in the Ukrainian Aviation Market in the Context of the COVID-19 Pandemic in the Context of the Agreement on a Common Aviation Area	605
A. Patlins, M. Bekeris. Development of IoT Solution Prototype for Reliable and Sustainable Transport System in Uncertain Epidemiological Conditions	611
V. Paulauskas, D. Paulauskas, L. Filina-Dawidowicz. Evaluation of Seaports and Terminals Possibilities to Adapt to Changes in Market and Economic Conditions	617
A. Pomykala. Changes in Transportation due to the Influence of SARS-CoV-2	623
O. Fomin, A. Lovska, D. Skurikhin, V. Nerubatskyi, D. Sushko. Special Features of the Vertical Loading on a Flat Car Transporting Containers with Elastic-Viscous Links in their Interaction Units	629
A. Dolinayova, I. Domeny. Rail Passenger Transport before and during Pandemic COVID-19 in Slovak Republic	634
O. Serhiienko, Yu. Domin, M. Kovtanets, D. Marchenko, V. Mogila, S. Kuzmenko. Improvement of Locomotive Dynamic Qualities by Investigating Effectiveness of the Rotary Hydraulic Vibration Dampers	640
A. Pálková, J. Mašek, D. Pribula. Co-Modality as a Tool for Improvement of Public Transport	646
S. Semenov, E. Mikhailov, M. Miroshnykova, J. Dižo, M. Blatnický, J. Harušinec. A Reduction of the Running Resistance of a Tram Bogie	651
A. Malūkas, S. Lebedevas. Regulations towards Cryogenic Carbon Capture Implementation on the Marine Transport	657
I. Bondarenko, R. Keršys, L. Neduzha. Analysis of Problem Related to Experimental Data Processing in the Study of the Rolling Stock Influence on the Track	663
A. Novák, D. Bendík, T. Lusiak. Artificial Intelligence and Its Use in Aviation	669
M. Kovtanets, O. Serhiienko, V. Nozhenko, D. Marchenko, A. Klimash, T. Kovtanets. Substantiation of the Effectiveness of the Jet-Abrasive Impact on the Rails to Improve the Frictional Properties of the “Wheel-Rail” Contact	677
E. Nedeliaková, M. Valla. Application of Quality Management Methods in Railway Undertakings as a Support for the Competitiveness of Railway Transport in the Transport Market	682
E. Valionienė, B. Plačienė. Resilience of Seaport Ecosystem: Theoretical Approach and Future Research	688
W. Nowakowski, T. Ciszewski, P. Bojarczak. Communication Technologies Used in Intelligent Transportation Systems	694
Š. Kavan. Traffic Safety as an Element of Children's Education in the Czech Republic	699
V. Mogila, M. Kovtanets, M. Morneva, O. Porkuian, D. Marchenko, T. Kovtanets. Modeling of the Heat Transfer Process for Steam Condensation inside the Tubes of Diesel Locomotive Radiator Sections	704
T. Zavodjančík, J. Janura, P. Vertaľ, E. Kolla. Pedestrian Target Systems for Active Vehicle Safety Testing	708
B. Sugali Krishna Naik, D. Sourek. Review of Green Practices in the Czech Republic Challenges and Implementation of Lean Supply Chain Management System	713
N. Chornopyska, K. Stasiuk. Competitive Advantages Assessment for the Railway Industry of Ukraine	718
M. Karpenko, O. Prentkovskis. Review of Researches Tendency in the Future of the Road Transport	724
R. Muhitovs, I. Rankis, M. Mezitis, G. Strautmanis, V. Iriskovs. Comparative Analysis of Methods for	729

Regulating the Heating Power of Turnouts

V. Nozhenko, M. Kovtanets, O. Serhiienko, V. Mogila, D. Marchenko, M. Vakulik. Control of Frictional Interaction in a Two-Point Tribocontact “Wheel-Rail”	735
N. H. Venkatesh. Aspects of Safety in Autonomous Driving Systems	740
Z. Říha, I. Dočkalíková. Economics of Electromobility Development in the Czech Republic from the Perspective of Users	745
V. Sukalova. Senior Taxi as a Support for the Mobility of Seniors in the Period of Covid 19	750
M. Babyak, L. Neduzha. Transportation Optimization of Homogeneous Freight in the Transport Systems	755
B. Bodnar, O. Ochkasov, V. Serdiuk, M. Ochkasov. Signal Analysis of the Armature Rotation Irregularities in the Traction Electric Motor by Unsupervised Anomaly Detection Methods	761
A. Šperka, J. Čamaj, Z. Gerhátová, V. Zitrický. Possibilities of Shortening Travel Times on the Railway Line Zvolen – Košice	767
V. Lukoševičius, V. Liesionis, V. Navickas. Fatigue Analysis of a Tanker Semi-Trailer Structure	774
R. Kalniņa, I. Demjanenko, R. Drunka, K. Smilgainis. Photocatalytic Disinfection: Direction for the Treatment of Ship “Greywater” from Pathogens and Difficult-to-Degrade Organic Compounds	782
L. Ursulyak, K. Zheleznov. Simulation of Braking Processes in Freight Trains	788
J. Majerova, M. Nadanyiova, Z. Bednarcik. The Real Added Value of Corporate Social Responsibility of Automotive Brands and Its Implications for Marketing Management	792
O. Kichkin, O. Kichkina. Methods of Improving the Information Logistics of a Trucking Company on the Example of the US Refrigerated Cargo Market	798
M.F. Baimukhamedov, A.M. Baimukhamedova, G.S. Baimukhamedova, M.K. Akgul. Development of Transport and Logistics Complex of Kazakhstan in the Context of the Program “Digital Kazakhstan”	803
S. Zajankauskas, A. Povilionis, V. Lukoševičius. Investigation of the Active Suspension in Small Cars	808
D. Kotkova, L. Kotek, D. Malanik, M. Hromada, M. Malanikova. Software Tool for Identification and Classification of Soft Targets of Transport Infrastructure	817
O. Fomin, P. Prokopenko, D. Turovets, A. Fomina. Mobile System for Determination of Quality Indicators of Wagon Movement under Operating Conditions	822
D. Juodvalkis, M. Mažeika. Analysis of Transport Pollution Air Quality Monitoring Stations in Lithuania	827
O. Kuropiatnyk, S. Raksha, O. Krasnoshchok. Experimental Research of Ropeway Dynamics	831
B. Békési, L. Szilvássy, G. Major, L. Gajdács, K. Jámbor. Working Drones in a Modern Airport's Daily Life	836
V. Andrieiev, O. Tiutkin, O. Hubar, R. Markul, N. Mukhina. Methods of Assessment of Ballast Contamination on Railways of Ukraine	842
K. Ciešlar, T. Knefel J. Nowakowski. Numerical Analysis of the Strength of the Crankshaft of a Four-Stroke Internal Combustion Engine	850
O. Horobchenko, V. Demchenko, O. Demchenko. Simulation of the Influence of the Rolling Surface Profile on the Stability of Wheel Pair Movement on the Railway Track	854
M. Dagilis, S. Kilikevičius. Post-Stall Correction for Vortex Lattice Method	861
L. Novotný, V. Popardovský. Electric Conversion of Small Wheeled Military Vehicle	865

O. Fomin, P. Prokopenko, D. Turovets, A. Fomina. Interaction Assessment of the Component Parts of the Rolling Stock with the Infrastructure by Determining the Dynamic Characteristics of the Movement of Converted Hopper Wagons after Long-Term Operation	870
V. Konecny, A. Breznicka, M. Cerveny, P. Stodola, J. Stodola. Selected Risk Analysis Tools	876
J. Chocholac, M. Polak, S. Vancurova, P. Susovska, J. Brhel. Logistic Planning Tool for Perishable Goods in Accordance with Green Distribution Logistics and Green Reverse Logistics	884
A. Rijkure. Analysis of Port Efficiency Assessment Methods, Development of a New Multidimensional Complex Model	890
Z. Zvakova, M. Boros. The Procedure for Security Checking of Vehicles at the Entrance	895
G. Wiśniewski. Activities Affecting the Safety of Transport Companies by Changing the Process and Awareness of Employees, and the Implementation of Innovative Technical Infrastructure	899
R. Indriksons. Load on Free-Falling Lifeboat Passengers	905
R. Zaripov, A. Tkachuk, S. Miller, S. Zigangirov, P. Gavrilovs. On the Development of Electric Vehicles for the Tourism Industry	911
J. Kubás, M. Ballay, K. Zábovská. Assessment of the Use of Alternative Energy Sources with Emphasis on Electromobility in the Slovak Republic	916
J. Chlumecký, D. Vymětal, J. Froněk, P. Vanek. Selected Methods for Improving Public Transport	921
B. Tymoshevskyy, M. Tkach, D. Kostenko. Efficiency of the Hydrogen Compression Facility Based on the Metal-Hydride Technology for Fueling Hydrogen Powered Transport	926
M. Simutis. Mathematic Modelling of Towing Operation	932
G. Boyko, M. Kovtanets, I. Medvediev. Integral Assessment of the Technical Condition of Pad Brakes	937
E. Popardovská, V. Popardovský, M. Popardovský. Internal Structural Defects Determination of Polymer Composite Using Lock-in Thermography	941
K. Gunasekaran, J. Goicolea, P. Griškevičius. Structural Design, Simulation and Numerical Comparison of the Dynamic Analysis of High-Speed Railway Bridges Using ABAQUS and CalDintav 3.0 Software	946
D. Kotkova, M. Hromada, L. Kotek. Assessment of the Readiness of the Selected Object of Transport Infrastructure for Violent Attacks	951
O. Vatchenko, B. Vatchen. Efficiency of the Project of Using a Crushing Cleaning Machine	957
J. Kochas, J. Sadauskas, J. Šmatauskas. Assessing the Ecological and Technical Performance of the New DFDS Ferry	963
J. Kulička. The Position of Eigenvalues in the Gaussian Complex Plane Depending on the Change of the Coefficients of the Homogeneous Linear Differential Equation in Transport Application Using Matlab	968