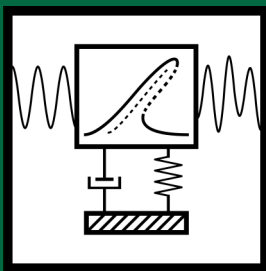
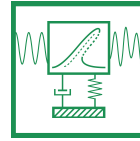


International Conference VIBROENGINEERING

Katowice, Poland
October 14-15th, 2015



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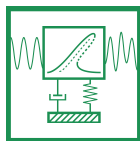
20th VIBROENGINEERING 2015:

**International Conference on Vibration Theories, Approaches
and Technologies in Infrastructure and Transportation
Engineering**

Conference Contacts:

Ms. Cieśla: 48696650561

Mr. Burdzik: 48605617723



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The 20th VIBROENGINEERING 2015: International Conference on Vibration Theories, Approaches and Technologies in Infrastructure and Transportation Engineering will be held during 14-15-th of October, 2015 in Katowice, Poland. Its purpose is to provide a platform for scientists, engineers and practitioners throughout the world to exchange ideas and present their latest research results in the areas of infrastructure engineering, typically bridge engineering, hydraulic engineering, offshore engineering, and transportation structures.

The main theme of the conference will be Vibration Theories, Approaches and Technologies in Infrastructure and Transportation Engineering. This conference covers a range of topics, including but not limited to:

Modelling & Simulation in Vibroengineering

Spectral analysis

Nonlinear vibration problems

Vibration damage diagnosis

Vibration Coupling & Interaction

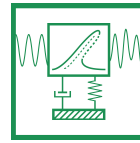
Modal Analysis & Identification

Noise & Uncertainty & Control

All accepted papers intend to address the hottest issues in Vibroengineering of dynamical systems and will be published in JVE PROCEEDIA. The extended excellent papers will be considered for publication in Journal of Vibroengineering.

The program of the conference is arranged into one Invited Speakers Session and Symposium Sessions at Novotel Hotel, Katowice, Poland.

On behalf of the Organizing Committee, we would like to welcome the delegates to International Conference VIBROENGINEERING 2015. We hope that you will enjoy the conference and find VIBROENGINEERING 2015 Program exciting. We look forward to meeting you in October 2015, Katowice.



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Rafał Burdzyk, Silesian University of Technology, Poland

Minvydas Ragulskis, Kaunas University of Technology, Lithuania

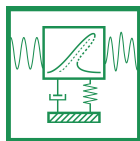
International Organization Committee:

Maria Cieśla

Tautvydas Ragulskis

Piotr Fołęga

Łukasz Konieczny

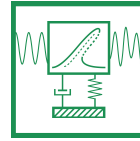


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M. Zakrzhevsky, Riga Technical University, Latvia



Conference Program

Day 1: October 14

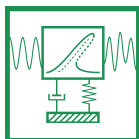
Location: Novotel Hotel, Katowice

09:45-11:15	Official Reception at Novotel Hotel, Katowice
11:30	Free transportation from Novotel Hotel, Katowice to Goldstein Palace, Katowice

Day 1: October 14

Location: Goldstein Palace, Katowice, Poland

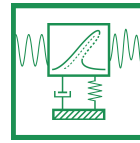
	PLENARY SESSION Chairs Rafal Burdzik and Minvydas Ragulskis
12:00-12:15	OPENING CEREMONY
12:15-12:45	Plenary Speech: Charles Lord Damping-where are we and where are we going?
12:45-13:15	Plenary Speech: Uichi Nishizawa Development of spherical ultrasonic motor for space. Evaluations of durability under high temperature environment.
13:15-13:45	Plenary Speech: Mahmoud M. Jahjouh Damage detection of wind turbine supporting structures using an improved harmony search algorithm
13:45-14:30	Lunch
14:45	Excursion “Katowice – road to modern city by improved transport system”



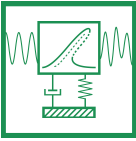
Day 1: October 14

Location: Novotel Hotel

Poster ID	POSTER SESSION 17:30-19:30
17:30 - 19:30	Session Chairs Dr. Łukasz Konieczny and Prof. Alexander Shokhin
P1	Piotr Deuzzkiewicz, Jaroslaw Pankiewicz. Nonlinear model of rubber torsional vibration damper
P2	Jacek Dziurdź, Maciej Zawisza. The investigation of the impact of changes in the characteristics of the rubber element on the effectiveness of torsional vibration damper
P3	Zbigniew Dąbrowski, Bogumił Chiliński. Identification of a model of crank shaft with a damper of torsional vibrations
P4	Anna Grzeczka, Piotr Kohut, Maciej Klaczyński, Edmund Wittbrodt, Tadeusz Uhl. Vision-based motion analysis of a kitesurfer
P5	Damian Markuszewski, Maciej Zawisza. Defect detection in composite constructions – the proposition of a diagnostic test
P6	Jakub Młyńczak, Tomasz Hejczyk, Bartłomiej Wszolek, Adam Galuszka, Damian Surma, Roman Ogaza, Rafał Burdzik. Passenger safety and information module in intelligent integrated traffic management system
P7	Szymon Surma, Jakub Młyńczak, Ireneusz Celiński, Jan Warczek. Mobile analysis of railway traffic safety
P8	Jakub Młyńczak, Ireneusz Celiński, Rafał Burdzik. Effect of vibrations on the behaviour of a vehicle driver
P9	Jan Warczek, Jakub Młyńczak, Ireneusz Celiński. Simulation studies of a shock absorber model proposed under conditions of different kinematic input functions
P10	Paulina Nogowczyk, Grzegorz Szcześniak, Łukasz Konieczny, Rafał Burdzik. Non-conventional suspension systems in heavy special-purpose trucks
P11	Tomasz Ostrowski, Paulina Nogowczyk, Rafał Burdzik, Łukasz Konieczny. Technical elements for minimizing of vibration effects in special vehicles
P12	Laskowski Dariusz, Rafał Burdzik, Piotr Łubkowski, Łukasz Konieczny. Vibration effect on the anthropo-technical systems reliability
P13	Piotr Łubkowski, Rafał Burdzik, Dariusz Laskowski, Łukasz Konieczny, Polak Rafał. Selected issues of vibration effects on IT network devices reliability
P14	Wojciech Homik, Andrzej Skrzat. Strength analysis of small-dimension hub rubber torsional vibration damper



P15	Grzegorz Wojnar, Wojciech Homik. Reduction of the amplitudes of selected components of the frequency spectrum of momentary velocity of the crankshaft of the internal combustion engine piston through the use of torsional vibration dampers
P16	Marek Stankiewicz, Jan Targosz. Research methodology for vibration isolation materials
P17	A. Mikhail Britch, Algimantas Bubulis, Vladimir Minchenya, Vincentas Veikutis, Jonas Navickas. Mechanism of generation of the flexural vibrations in an ultrasonic waveguide
P18	Dariusz Mažeika, Martynas Lendraitis, Algimantas Bubulis, Audrius Bartkus. Air flow pressure drop research of vehicle air filter with different inner liner design
P19	E. Korobko, A. Baev, A. Bubulis, V. Kuzmin, Z. Novikova, E. Novik. The peculiarities of ultrasound wave propagation in magnetorheological fluid with complex dispersive phase
P20	Bartosz Jakubek, Wojciech Rukat. Influence of a tool's working diameter on the level of handle vibrations of an impact drill
P21	Marek Szczutkowski, Janusz Musiał, Zbigniew Lis. Measurement reliability of the continuous vibration monitoring process of wind turbines in conditions of an accredited laboratory
P22	Wieczorek Andrzej. The effect of the type of lubrication oil on the vibration of industrial planetary gearboxes
P23	Maria Cieśla. Vibrations as the main element of transport external costs in terms of economic and human impact
P24	Zbigniew Łosiewicz. Use of vibroacoustic diagnostics in the exploitation of a vessel in real conditions
P25	Robert Kostek, Bogdan Landowski, Łukasz Muślewski. Simulation of rolling bearing vibration in diagnostics
P26	Cioch Witold. Vibration analysis in diagnosing turbine engines working in non-stationary states
P27	Marek Kuchta, Mirosław Siergiejczyk, Jacek Paś. Measurement system for testing the alar cast partials
P28	Tomasz Figlus, Łukasz Konieczny, Rafał Burdzik, Piotr Czech. Assessment of diagnostic usefulness of vibration of the Common Rail system in the diesel engine
P29	Tomasz Figlus, Łukasz Konieczny, Rafał Burdzik, Piotr Czech. The effect of damage to the fuel injector on changes of the vibroactivity of the diesel engine during its starting
P30	Mariusz Wandor, Rafał Burdzik. Research on vibration of steering gear of automotive vehicle



P31

Grażyna Malczyk, Wiesław Wszolek.

The study of the vocal cords in the process of stuttering

Day 1: October 14

Location: Novotel Hotel

20:00-22:30

GALA DINNER

Day 2: October 15

Location: Novotel Hotel

ORAL SESSION 1

Session Chair Prof. **Rafał Burdzik** and Prof. **Charles Lord**

09:00-09:15

H. Kim, K. P. Lee, S. H. Lee, J.-Y. Jin, C. Jang.

Modelling shoreline movement using two extreme beachface slopes

09:15-09:30

Aleš Hába, Jaromír Zelenka, Martin Kohout.

Integration of multidimensional fault diagnostic indicators on the example of rolling element bearings

09:30-09:45

Jacek Wodecki, Paweł Stefaniak, Jakub Obuchowski, Agnieszka Wylomanska, Radosław Zimroz.

Combination of ICA and time-frequency representations of multichannel vibration data for gearbox fault detection

09:45-10:00

Grigory Panovko, Alexander Shokhin, Sergey Eremeykin.

Adaptive properties of a self-synchronization effect of unbalanced vibroexciters

10:00-10:15

Martin Zubik, Ales Prokop, Kamil Rehak, Pavel Novotny.

The effect of the gear parameters to the noise of transmission

10:15-10:30

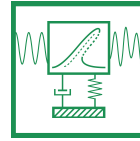
Bogumił Chiliński, Maciej Zawisza.

Modelling of lateral-torsional vibrations of the crank system with a damper of vibrations

Day 2: October 15

10:30-11:00

Coffee Break



Day 2: October 15

Location: Novotel Hotel

ORAL SESSION 2	
	Session Chair Prof. Anatoli Vakhguelt and Prof. Andrzej Puchalski
11:00-11:15	Włodzimierz Choromanski, Maciej Kozłowski, Iwona Grabarek. The concept of functional evaluation of innovative driver interface (HMI) on the example of multifunctional steering wheel in an electric car
11:15-11:30	Jakub Obuchowski, Maciej Madziarz, Radosław Zimroz. Seismic multiple events – a study on signals' separation
11:30-11:45	Anatoli Vakhguelt, Marek Bergander. Evolution of acoustic waves in heaped granular material
11:45-12:00	Robert Kostek, Bogdan Żółtowski. Rolling bearing defect detection and diagnostics
12:00-12:15	Grzegorz Żak, Agnieszka Wylomańska, Radosław Zimroz. Filtering procedure for local damage detection in gearbox using alpha stable modeling
12:15-12:30	Laura Gegeckiene, Edmundas Kibirsktis, Vitalijus Volkovas, Robertas Mikalauskas. Investigation of three-layered rectangular corrugated cardboard package resistance to dynamic loads

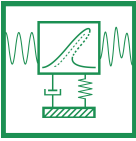
Day 2: October 15

12:30-14:00	Lunch
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Day 2: October 15

Location: Novotel Hotel

ORAL SESSION 3	
	Session Chair Prof. Algimantas Bubulis and Prof. Bogdan Żółtowski
14:00-14:15	Alexander Shokhin, Andrey Nikiforov, Georgy Korendyasev, Sergey Eremeykin. Analysis of dynamic properties of two-mass system with inertial exciter of limited power
14:15-14:30	Marcin Kurzydło, Marek Pawelczyk. Vibration measurements for copper ore milling and classification process optimization
14:30-14:45	Jakub Sokolowski, Jakub Obuchowski, Maciej Madziarz, Agnieszka Wylomańska, Radosław Zimroz. Seismic signals discrimination based on instantaneous frequency
14:45-15:00	Jakub Vágner, Jaromír Zelenka, Aleš Hába, Martin Kohout, Petr Havlíček. Stationary device for vibrodiagnostics of passing vehicle



15:00-15:15	Marta Polak, Jakub Obuchowski, Maciej Madziarz, Agnieszka Wylomańska, Radosław Zimroz. Differences in time-varying group delay of seismic signals
15:15-15:30	Marcin Strączkiewicz, Tomasz Barszcz. Integration of multidimensional fault diagnostic indicators on the example of rolling element bearings
15:30-15:45	Jacek Wodecki, Paweł Stefaniak, Agnieszka Wylomańska, Radosław Zimroz, Grzegorz Zak. Segmentation algorithm of roadheader vibration signal based on the stable distribution parameters

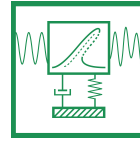
Day 2: October 15

15:45-16:00	Coffee Break
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Day 2: October 15

Location: Novotel Hotel

	ORAL SESSION 4
	Session Chair Prof. Uichi Nishizawa and Prof. Radosław Zimroz
16:00-16:15	Charles Lord, Jem Rongong. A microslip model for layered structures subjected to bending
16:15-16:30	Jarosław Bednarz. Example of the application of operational modal analysis method for damage detection of the rotating blades
16:30-16:45	Karol Listewnik, Grzegorz Grzeczka, Maciej Klaczyński, Witold Cioch. Real-time LabVIEW application for diagnostics and evaluation of machine vibration
16:45-17:00	Andrzej Puchalski, Iwona Komorska. Analysis of the combustion engine dynamics by unified measure in the phase space of the vibration signal
17:00-17:15	Wojciech Homik, Piotr Grzybowski. The simulation model of small-dimension rubbery torsional vibration damper
17:15-17:30	Bogdan Żółtowski, Marcin Łukasiewicz. Vibration assessment of the consumption of a technical object
17:30-17:45	Ali El Hafidi, Cintya De La Pegna, Bruno Martin. An optimal placement of PCLD treatment for vibration reduction of plates.
17:45-18:00	Gökay Simitçioğlu, Burak Ustaoglu, Serter Atamer, Vedat Z. Doğan, Halit S. Türkmen, Zahit Mecitoğlu, Y. Emre Erginsoy. Dynamic analysis of polyethylene fuel tanks used in buses



18:00-18:15	Maciej Klaczynski. Automatic detection system of aircraft noise events during acoustic climate long-term monitoring near airport
18:15-18:30	ENVIBRA Test and Measurement

Day 2: October 15

	CLOSING SESSION
18:30-18:45	Chairs Prof. Rafal Burdzik & Prof. Minvydas Ragulskis Ideas, Cooperation and Projects Meeting All Conference participants are welcome to attend
18:45-19:00	Chairs Prof. Rafal Burdzik & Prof. Minvydas Ragulskis Best Papers Award, Closing Ceremony