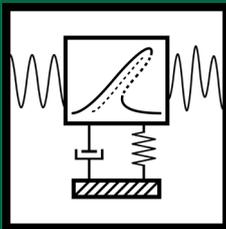


# The 31st International Conference on VIBROENGINEERING

Dubai, United Arab Emirates  
April 20-22nd, 2018



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## **The 31st International Conference on VIBROENGINEERING**

**Vibration and Acoustics in Civil Engineering and Fault Diagnostics**

**20-22nd April 2018, Dubai, United Arab Emirates**



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**The 31st International Conference on VIBROENGINEERING** will be held during 20-22nd of April 2018 in Dubai, United Arab Emirates. 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 order to further promote the Vibroengineering and its applications to the aerospace, automobile, energy and other industries. The Conference is organized by **JVE International** in partnership with **Heriot Watt University Dubai Campus**.

The main theme of the conference focuses on (but not limited to):  
**Vibration and Acoustics in Civil Engineering and Fault Diagnostics.**

#### **General Topics of the Conference:**

- Acoustics, Noise Control and Engineering Applications
- Chaos, Nonlinear Dynamics and Applications
- Fault Diagnosis Based on Vibration Signal Analysis
- Flow Induced Structural Vibrations
- Fractional Dynamics and Applications
- Mechanical Vibrations and Applications
- Modal Analysis and Applications
- Oscillations in Biomedical Engineering
- Oscillations in Electrical Engineering
- Seismic Engineering and Applications
- Vibration Generation and Control
- Vibration in Transportation Engineering

Internationally renowned invited speakers and contributing authors from all over the world will present the latest advances in the area of Vibroengineering. This conference will feature a broad range of high-level technical presentations including invited distinguished experts. The conference will provide an opportunity to communicate your recent research advances, exchange ideas in innovative engineering technologies, meet old friends and make new business partners in the area of Vibroengineering. With your participation, this Conference will prove to be an exciting scientific event, a fruitful opportunity to promote scientific research and technological development of Vibroengineering and its applications.

With your participation, this conference will prove to be a very exciting event, a fruitful opportunity, to promote scientific research and technological development of vibration engineering and its applications.

All papers presented at VIBROENGINEERING Conferences are published as short Conference papers in Vibroengineering PROCEDIA. Conference papers published in Vibroengineering PROCEDIA are indexed in EI Compendex, Scopus, Inspec, Gale Cengage, EBSCO, Google Scholar and CNKI Scholar.

The authors of best papers presented at the Conference will be invited to prepare the extended version of their papers (10-20 pages) which will be considered for publication in Journal of VIBROENGINEERING (indexed in Web of Science, EI Compendex, EBSCO, Gale Cengage and



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Inspec), Journal of Measurements in Engineering (indexed in Web of Science, EI Compendex, EBSCO, Gale Cengage and Inspec) and Journal of Mathematical Models in Engineering (indexed in EBSCO, Gale Cengage).

The Conference Venue is at JA Oasis Beach Tower located in the most central area of Dubai Marina, United Arab Emirates – JBR (Jumeirah Beach Residence).

On behalf of the Organizing Committee, we would like to welcome the delegates to the 31st International Conference on VIBROENGINEERING. We hope that you would enjoy the conference and find the program of the Conference exciting. We look forward to meeting you in April 2018 in Dubai.



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Prof. **Fadi Ghaith** (Heriot Watt University, Dubai Campus, United Arab of Emirates)

Prof. **Minvydas Ragulskis** (JVE International, Lithuania)

**Organizing Committee:**

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M. Bayat (Roudehen Branch, Islamic Azad University, Iran)

K. Bousson (University of Beira Interior, Portugal)

I. Blekhman (Mekhanobr - Tekhnika Corporation, Russia)

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J. Viba (Riga Technical University, Latvia)

V. Volkovas (Kaunas University of Technology, Lithuania)

J. Wallaschek (Leibniz University Hannover, Germany)

Mao Yuxin (Zhejiang Gongshang University, China)

M. Zakrzhevsky (Riga Technical University, Latvia)



## Conference Program

**Day 0: April 20**

**Location: JA Oasis Beach Tower**

16:00-18:00	<b>Registration</b>
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**Day 1: April 21**

**Location: JA Oasis Beach Tower**

09:00-10:00	<b>Registration</b>
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**Day 1: April 21**

**Location: JA Oasis Beach Tower**

	<b>PLENARY SESSION</b> Session Chairs: <b>Prof. Minvydas Ragulskis</b> and <b>Prof. Fadi Ghaith</b>
10:00-10:05	<b>Conference Opening Ceremony</b>
10:05-10:20	Welcome Speech: <b>Minvydas Ragulskis</b> . Vibroengineering – past, present and the future
10:20-10:40	Invited Keynote Lecture: <b>Jian Ma</b> , (Beihang University, China) Fault diagnosis and health assessment using cognitive computing theory
10:40-11:00	Invited Keynote Lecture: <b>Fadi Ghaith</b> , (Heriot Watt University, UAE) Elastodynamic Modeling and Simulation of the AIRBUS A380 Wing
11:00-11:20	<b>Vytautas Ostaševičius</b> , (Kaunas University of Technology, Lithuania) Vibrational Separation of Biological Cells

**Day 1: April 21**

**Location: JA Oasis Beach Tower**

11:20-11:45	<b>Coffee Break</b>
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**Day 1: April 21**

**Location: JA Oasis Beach Tower**

<b>ORAL SESSION 1</b>	
Session Chairs: <b>Dr. Jian Ma</b> and <b>Dr. Mahmoud Bayat</b>	
11:45-12:00	<b>Guntis Strautmanis.</b> On the issue of impact of anisotropy of the rotor elastic suspension on the performance of the automatic balancer
12:00-12:15	<b>Wei Zhang.</b> Natural characteristics analysis of aircraft wing box based on finite element method and measured data
12:15-12:30	<b>Marek Placzek.</b> Tests of the acoustic emission of the power steering column equipped with a modified composite worm gear housing
12:30-12:45	<b>Yuan Chen.</b> Influence of oil film stiffness on natural characteristics of single-rotor three-input helicopter main gearbox
12:45-13:00	<b>Mehmet Sefa Orak.</b> Monitoring Cantilever Beam with a Vision-based Algorithm and Smartphone
13:00-13:15	<b>Hassan Rezazadeh.</b> The effect of non-linear inertia on dynamic response of asymmetric multi-story buildings

**Day 1: April 21**

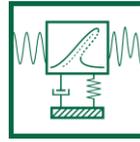
**Location: JA Oasis Beach Tower**

13:15-13:30	<b>Coffee Break</b>
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**Day 1: April 21**

**Location: JA Oasis Beach Tower**

<b>ORAL SESSION 2</b>	
Session Chairs: <b>Dr. Marek Placzek</b> and <b>Dr. Amir Esmael Forouhid</b>	
13:30-13:45	<b>Mahmoud Bayat.</b> Seismic response of steel structures with wire rope isolators at base
13:45-14:00	<b>Tong Zhang.</b> Cylindrical roller bearing fault diagnosis based on VMD-SVD and Adaboost classifier method
14:00-14:15	<b>Amir Esmael Forouhid.</b> Noise pollution modeling associated with the operations of the Sarakhs airport
14:15-14:30	<b>Azeddine Ratni.</b> Defect detection in gearbox systems based on the instantaneous phase of signals
14:30-14:45	<b>Behrooz Yousefi.</b> A mixed finite element formulation for Timoshenko fiber models based on the local stress field
14:45-15:00	<b>Davood Sedaghat Shaygan.</b> Comparing seismic performance of steel frames equipped with diagonal and chevron viscous damper under near and far field earthquakes
15:00-15:15	<b>Alireza Ardakani.</b> Dynamic behavior of NATM tunnel under harmonic loading



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**Day 1: April 21**

**Location: JA Oasis Beach Tower**

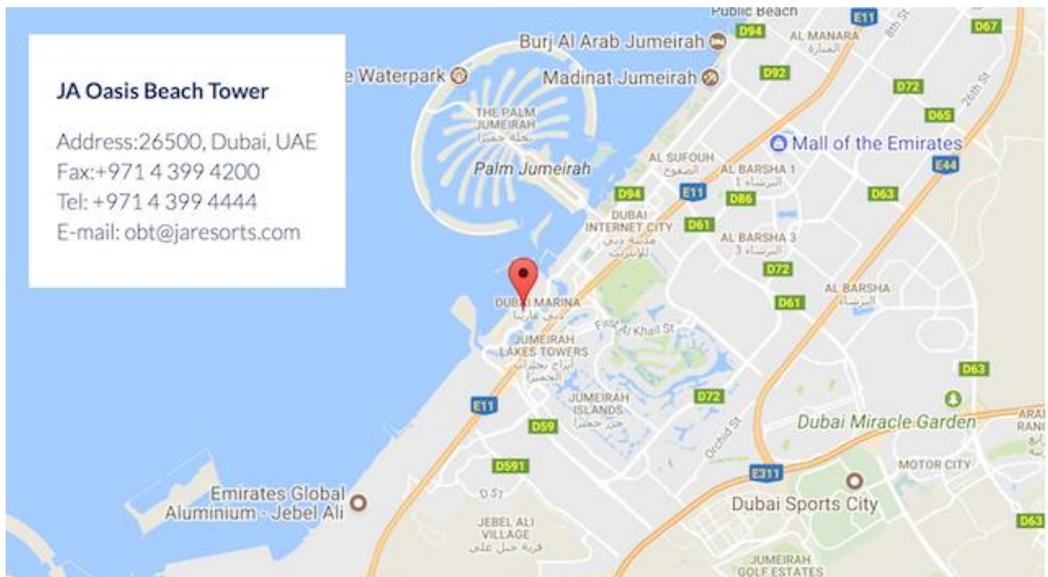
	<b>CLOSING SESSION</b> Session Chairs: <b>Prof. Minvydas Ragulskis</b>
15:15-15:30	<b>Closing Ceremony</b>

**Day 2: April 22**

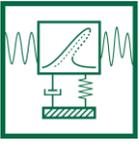
**Location: Pier 7 Valet Parking, Dubai Marina**

11:00-13:00	<b>Voluntary Boat Tour</b> Book through <a href="https://xclusiveyachtshare.com">https://xclusiveyachtshare.com</a> for 22nd of April
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## Conference Location



JA Oasis Beach Tower hotel is located in JBR, Dubai Marina.



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## Finding Venue

As a guideline for easier finding the venue – JA Oasis Beach Tower, on the opposite side there's a famous Rixos Hotel JBR.



When you enter the reception, go straight and walk the corridor to the lifts and go to 2nd floor where conference rooms are located.

