The 38th International JVE Conference

Rome, Italy
June 7-8, 2019
The 38th International JVE Conference

Vibration Engineering – Problems and Applications

June 7-8, 2019 in Rome, Italy
The 38th International JVE Conference will be held Rome, Italy. 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 Innovation in Structural Engineering Association.

The main theme of the conference focuses on (but not limited to):

**Vibration Engineering – Problems and Applications**

**General Topics of the Conference:**

- Materials and Measurements in Engineering
- Mathematical Models in Engineering
- Acoustics, Noise Control and Engineering Applications
- Mechanical Vibrations and Applications
- Fault Diagnosis Based on Vibration Signal Analysis
- Vibration Generation and Control
- Seismic Engineering and Applications
- Modal Analysis and Applications
- Vibration in Transportation Engineering
- Flow-induced Structural Vibrations
- Biomechanics and Biomedical Engineering
- Chaos, Non-linear Dynamics and Applications
- Dynamics and Oscillations in Electrical and Electronics Engineering
- Fractional Dynamics and Applications
- System Dynamics in Manufacturing System Modeling
- Dynamics of Smart and Functionally Graded Materials

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 JVE 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 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:
Faculty of Civil and Industrial Engineering, Sapienza University of Rome
Via Eudossiana 18 – Roma, Italy

On behalf of the Organizing Committee, we would like to welcome the delegates to the 38th International JVE Conference. We hope that you would enjoy the conference and find the program of the Conference exciting. We look forward to meeting you in June 2019 in Rome.
Chair:
Prof. Nicola Nisticò  Department of Structural and Geotechnical Engineering, Sapienza University of Rome, Italy

Scientific Organizing Committee:

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Alper Ilki  Istanbul Technical University, Turkey
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Giorgio Monti  Sapienza University of Rome, Italy
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Domenico Liberatore  Sapienza University of Rome, Italy
Giovanni Minafo  Università degli studi di Palermo, Italy
Panagiotis Asteris  University of Athens, Greece

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Marco Damiani  Sapienza University of Rome, Italy
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Attilio Quadrino  Sapienza University of Rome, Italy
Nina Serdar  University of Montenegro, Montenegro
Giuseppe Quaranta  Sapienza University of Rome, Italy

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J. Wallaschek Leibniz University Hannover, Germany
Mao Yuxin Zhejiang Gongshang University, China
M. Zakrzhevsky Riga Technical University, Latvia
# Conference Program

**Day 1: June 7**  
**Location: Room 7, Faculty of Civil and Industrial Engineering**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00-09:30</td>
<td>Registration</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Time</th>
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</table>
| 09:30-09:45  | PLENARY SESSION  
               Session Chairs: Tautvydas Ragulskis and Prof. Nicola Nisticò               |
| 09:45-10:00  | Conference Opening Ceremony                                                      |
| 09:45-10:00  | Welcome Speech: Tautvydas Ragulskis. Vibroengineering – past, present and the future |

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<tr>
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| 10:00-10:15  | **ORAL SESSION 1**  
               Session Chairs: Prof. Nicola Nisticò and Dr. Chiara Bedon               |
| 10:00-10:15  | Ata Meshkinzar. Vibration of circumferentially stepped-thickness piezoelectric cylindrical shells |
| 10:15-10:30  | Hartiny Kahar. Time-frequency energy analysis of chaotic mechanical system affected by additive impulses |
| 10:30-10:45  | Abraham Pérez Alonzo. Analysis of a biaxial fiber Bragg grating accelerometer intended for seismic applications |
| 10:45-11:00  | Krystyna Kuzniar. Impact of seismic-type shock parameters on the soil-structure interaction effect in the USC mining region |
| 11:00-11:15  | Chuijie Yi. Investigation on sparse measurement on ambient noise of large-scale fan |

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<th>Time</th>
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<tbody>
<tr>
<td>11:15-11:30</td>
<td>Coffee Break</td>
</tr>
</tbody>
</table>
### ORAL SESSION 2

Session Chairs: **Prof. Krystyna Kuzniar** and **Dr. Ata Meshkinzar**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30-11:45</td>
<td>Sandra Grau-Bartual</td>
<td>Effect of positive airway pressure oscillations on human epithelial cells</td>
</tr>
<tr>
<td>11:45-12:00</td>
<td>Guntis Strautmanis</td>
<td>Study of the area of attraction of the auto-balancing mode in a ball-type automatic balancing device with a horizontal axis of rotation</td>
</tr>
<tr>
<td>12:00-12:15</td>
<td>Alicja Kowalska-Koczwara</td>
<td>Influence of location of measurement point on evaluation of human perception of vibration</td>
</tr>
<tr>
<td>12:15-12:30</td>
<td>Chiara Bedon</td>
<td>Vibration experiments for diagnostic investigations on a glass suspension footbridge</td>
</tr>
<tr>
<td>12:30-12:45</td>
<td>Anvar Valeev</td>
<td>Complex condition monitoring for industrial equipment via remote strain gauge diagnostics and vibration isolating metamaterials</td>
</tr>
<tr>
<td>12:45-13:00</td>
<td>Charles Lord</td>
<td>Localised strain multiplication via rigid body motion amplifiers for strain dependent vibration dampers</td>
</tr>
</tbody>
</table>

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<th>Time</th>
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</thead>
<tbody>
<tr>
<td>13:00-13:15</td>
<td>Conference closing ceremony</td>
</tr>
</tbody>
</table>

### Day 1: June 7
**Location: Restaurant “La Cicala e la Formica” Via Leonina, 17**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>13:30-14:30</td>
<td>Lunch</td>
</tr>
</tbody>
</table>

### Day 2: June 8
**Location: Faculty of Civil and Industrial Engineering**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30-14:00</td>
<td>Rome City Tour</td>
</tr>
</tbody>
</table>
Sponsors and Partners

Conference Location

Faculty of Civil and Industrial Engineering, Sapienza University of Rome
Via Eudossiana 18 – Roma, Italy