

ISSN 1027-5851

International Journal of Acoustics and Vibration

June 2017

Volume 22, Number 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© (2017) by International Institute of Acoustics & Vibration
All rights reserved.

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact International Institute of Acoustics & Vibration
at the address below.

International Institute of Acoustics & Vibration
c/o Dr. Malcolm J. Crocker
1418 Wiggins Hall
Auburn, AL 36849, USA

Phone: (334) 844-3248
Fax: (334) 844-3306

www.iiav.org

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

EDITORIAL OFFICE

EDITOR-IN-CHIEF
Malcolm J. Crocker

MANAGING EDITOR
Marek Pawelczyk

ASSOCIATE EDITORS
Dariusz Bismor
Nickolay Ivanov
Zhuang Li

ASSISTANT EDITORS
Teresa Glowka
Sebastian Kurczyk
Karol Jablonski
Jan Wegehaupt

EDITORIAL ASSISTANT
Neha Patel
Margarita Maksotskaya

EDITORIAL BOARD

Jorge P. Arenas
Valdivia, Chile

Jonathan D. Blotter
Provo, USA

Leonid Gelman
Cranfield, UK

Samir Gerges
Florianópolis, Brazil

Colin H. Hansen
Adelaide, Australia

Hugh Hunt
Cambridge, England

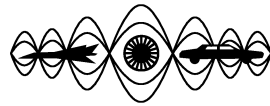
Dan Marghitu
Auburn, USA

Manohar Lal Munjal
Bangalore, India

Kazuhide Ohta
Fukuoka, Japan

Goran Pavic
Villeurbanne, France

Subhash Sinha
Auburn, USA



International Journal of Acoustics and Vibration

A quarterly publication of the International Institute of Acoustics and Vibration

Volume 22, Number 2, June 2017

EDITORIAL

ICSV24: London Calling
Jian Kang and Barry Gibbs 142

ARTICLES

Modeling and Vibration Suppression of Flexible Spacecraft Using Higher-Order Sandwich Panel Theory
Milad Azimi, Morteza Shahravi and Keramat Malekzadeh Fard 143

Free Vibration Analysis of Functionally Heterogeneous Hollow Cylinder Based on Three Dimensional Elasticity Theory
Masoud Asgari 151

Electrically Forced Vibrations of Partially Electroded Rectangular Quartz Plate Piezoelectric Resonators
Hui Chen, Ji Wang, Jianke Du and Jiashi Yang 161

Damping Performance of Dynamic Vibration Absorber in Nonlinear Simple Beam with 1:3 Internal Resonance
Yi-Ren Wang and Hsueh-Ghi Lu 167

Energy Harvesting Estimation from the Vibration of a Simply Supported Beam
A. Rajora, A. Dwivedi, A. Vyas, S. Gupta and A. Tyagi 186

Preparation and Experimental Study of Magnetorheological Fluids for Vibration Control
Ying-Qing Guo, Zhao-Dong Xu, Bing-Bing Chen, Cheng-Song Ran and Wei-Yang Guo 194

A Subjective Related Measure of Airborne Sound Insulation
Reinhard O. Neubauer and Jian Kang 201

Mechanical Fault Diagnosis Method Based on LMD Shannon Entropy and Improved Fuzzy C-means Clustering
Shaoliang Dong, Xiangyang Xu and Jiayuan Luo 211

Analysis of Transverse Vibration Acceleration for a High-speed Elevator with Random Parameter Based on Perturbation Theory
Chen Wang, Ruijun Zhang and Qing Zhang 218

Model-Based Algebraic Approach to Robust Parameter Estimation in Uncertain Dynamics Rotating Machinery
Pablo Izquierdo, Higinio Rubio, Manuel P. Donsion and J.C. Garcia-Prada 224

Optimal Vibration Control for Structural Quasi-Hamiltonian Systems with Noised Observations
Zi-guang Ying, Rong-chun Hu and Rong-hua Huan 233

Detection of Damage in Spot Welded Joints Using a Statistical Energy Analysis-like Approach
Achuthan C. Panikaj, Marandahalli V. Shivaprasad and S. M. Murigendrappa 242

Probes Design and Experimental Measurement of Acoustic Radiation Resistance
Xiaoqing Wang and Yang Xiang 252

Thermoviscoelastic Vibrations of a Micro-Scale Beam Subjected to Sinusoidal Pulse Heating
D. S. Mashat, A. M. Zenkour and A. E. Abouelregal 260

Noise and Vibration Analysis of a Heat Exchanger: a Case Study
Thiago A. Fiorentin, Alexandre Mikowski, Olavo M. Silva and Arcanjo Lenzi 270

About the Authors 276