

ISSN 1027-5851

International Journal of Acoustics and Vibration

June 2018

Volume 23, 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© (2018) by International Institute of Acoustics & Vibration
All rights reserved.

Printed by Curran Associates, Inc. (2018)

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****Jorge P. Arenas****EDITOR EMERITUS****Malcolm J. Crocker****MANAGING EDITOR****Marek Pawelczyk****ASSOCIATE EDITORS****Dariusz Bismor****Nickolay Ivanov****Zhuang Li****ASSISTANT EDITORS****Teresa Glowka****Sebastian Kurczyk****Karol Jablonski****Sara Alszer****EDITORIAL ASSISTANT****Akshata Balghare****Margarita Maksotskaya****EDITORIAL BOARD****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

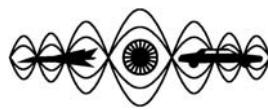
Fukuoka, Japan

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 23, Number 2, June 2018**EDITORIAL****The ICSV25: Sound of Peace Bell***Akira Ikuta* 123**ARTICLES****Design and Testing of a Mechatronic Device to Actively Self Suppress Vibration in Structures***Simone Cinquemani, Marco Bassetti and Ferruccio Resta* 124**Condition Monitoring of Single Point Cutting Tools Based on Machine Learning Approach***N. Gangadhar, Hemantha Kumar, S. Narendranath and V. Sugumaran* 131**Dynamic Analysis of Half Car Model with MR Damper as Semi-Active Suspension Element***K. Hemanth, Hemantha Kumar and K. V. Gangadharan* 138**Application of Spectral Element Method Combining Dilatation Theory to Sound Generated by a Co-rotating Vortex Pair***Zhenzhong Bao and Guoliang Qin* 147**Rolling Bearing Fault Detection in the Initial Stage of Degradation Based upon Optimized NLM and TKEO***Hongru Li, Baiyan Chen, He Yu, Yaolong Li and Hongqiang Gu* 157**Dynamic Characteristics of the Flange Joint with a Snap in Aero-Engine***Yu Liu, Jianjun Wang and Liqiang Chen* 168**Vibration Analysis of a Spring Supported FG Beam Under Harmonic Force***Chih Demir and Merter Altinoz* 175**Roughness Evaluation Approach for Nonstationary Vehicle Noise Based on Wavelet Packet and Neural Network Techniques***Hui Guo, Yansong Wang, Xiaolan Wang, Ningning Liu and Yarong Li* 185**Numerical Simulations of Tap Test on Composite Structures***Sung Joon Kim* 195**FFT-ApEn Analysis for the Vibration Signal of a Rotating Motor***Yiqing Zhou, Shituan-Ho Chang, Shuguang Wu, Xiong You Cai, Lin Tang and Z. Y. Xu* 203**Attributes of a Vibration Isolator Design with Stiffness Nonlinearities***Sudhir Kaul* 208**Rolling Bearing Fault Trend Prediction Based on Composite Weighted KELM***He Yu, Hong-ru Li, Zai-ke Tian and Yu-Kui Wang* 217**Vibration Analysis of an Axially Moving Plate Based on Sound Time-Frequency Analysis***Qianqian Lu, Wei Shao, Yangfang Wu and Chunlin Xia* 226**Acoustic Emission Signal Analysis and Event Extraction through Tuned Wavelet Packet Transform and Continuous Wavelet Transform While Tensile Testing the AA 2219 Coupon***P. Arun Bose, T. SasiKumar, P. Arul Jose and Jeby Philip* 234**Analysis on a Kinetic Theoretical Model of the Straight-Curved Pipe Conveying Fluid***Hua-bin Wen, Yi-ren Yang, Yun-dong Li and Yun Huang* 240**Location Optimization of Monopole Equivalent Sources in Wave Superposition Method***Shaowei Wu and Yang Xiang* 254**Free Vibration of Angle-ply Laminated Conical Shell Frusta with Linear and Exponential Thickness Variations***K. Viswanathan, A. K. Nor Hafizah and Z. A. Aziz* 264**About the Authors** 277