

ISSN 1027-5851

# **International Journal of Acoustics and Vibration**

December 2021

Volume 26, Number 4

**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© (2021) by International Institute of Acoustics & Vibration  
All rights reserved.

Printed with permission by Curran Associates, Inc. (2022)

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](http://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](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

**EDITORIAL OFFICE**

EDITOR-IN-CHIEF

**Jorge P. Arenas**

EDITOR EMERITUS

**Malcolm J. Crocker**

MANAGING EDITOR

**Marek Pawelczyk**

PRODUCTION EDITOR

**Dariusz Bismor**

ASSOCIATE EDITOR

**Zhuang Li**

ASSISTANT EDITORS

**Teresa Glowka****Karol Jablonski****Sara Bysko****Stanislaw Wrona****Bartłomiej Hrapkowicz**

EDITORIAL ASSISTANT

**Morgan Shaffer****Linwood Stevens****Elizabeth Robb****April Garrett****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**

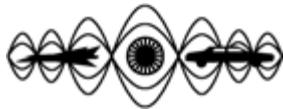
Fukuoka, Japan

**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 26, Number 4, December 2021****EDITORIAL**

- Impulse Noise: A Real Threat for Workers and a Challenge for Acousticians** *Jorge Arenas* . . . . . 272

**ARTICLES**

- Effect of Tooth Surface Modification on Dynamic Transmission Efficiency of Double Helical Gear Trains** *Feng Wang, Xing Xu, Jiaqi Xia and Hongbo Que* . . . . . 274
- A Method for Predicting the Influences of Bearing Support Stiffness and Position on the Vibrations of a Flexible Rotor System** *Jing Liu and Changke Tang* . . . . . 287
- Size-Dependent Stability of a Cantilevered Piezoelectrically Actuated Micropipe Conveying Fluid** *Li Yun-dong, Cheng Feng and Wen Huabin* . . . . . 296
- Acoustic Attenuation Performance of Two-Pass Perforated Hybrid Mufflers with Mean Flow** *Jiliang Fan and Zhenlin Ji* . . . . . 306
- Determination of Notched Input for Equipment Under Random Vibrations** *K. Renji* . . . . . 316
- Influence of Different Modified Gears on the Vibration and Noise of Electric Vehicle Reducer** *Bo Xu, Yu Qiu, Bifeng Yin, Xijun Hua and Hang Du* . . . . . 325
- About the Authors** . . . . . 337