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Bonnie Schnitta, SoundSense

Prediction, Modeling, and Systems

Session Chairs: Kristin Cody and Robert Powell, Room: Camp

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Dr. Bhisham Sharma, Michigan Technological University

Motor Vehicle Noise 2

Session Chairs: Song He and Charles Moritz Room: Camp

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11:00 AM 11-June-2024 NC_2024_0185.pdf **DOI:** https://doi.org/10.3397/NC_2024_0185 *Evaluation of steering wheel vibration in electric vehicles and application to Dynamic Motor Drive...857* Vijay Srinivasan, Tula Technology Inc.; Vibhor Kumar Rajput, Tula Technology Inc.

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10:40 AM 11-June-2024 NC_2024_0088.pdf **DOI:** https://doi.org/10.3397/NC_2024_0088 Retrospective Cost Saving Comparison Between TNM 2.5 and TNM 3.2 Barrier Analysis Results...889 Cole Martin, Dudek; Hunter Moore, AECOM

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11:40 AM 11-June-2024 NC_2024_0096.pdf **DOI:** https://doi.org/10.3397/NC_2024_0096 Investigation of methods to estimate NLR of residential structures for airport sound insulation programs...924 Eric Cox, HMMH; Hayden Jubera, HMMH

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10:00 AM 11-June-2024 NC_2024_0187.pdf **DOI:** https://doi.org/10.3397/NC_2024_0187 A case study of residential waste plumbing noise control...929

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10:20 AM 11-June-2024 NC_2024_0165.pdf **DOI:** https://doi.org/10.3397/NC_2024_0165 Acoustical performance of steel coil springs for vibration isolation...939

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11:00 AM 11-June-2024 NC_2024_0076.pdf **DOI:** https://doi.org/10.3397/NC_2024_0076 *HVAC terminal units are too darn loud...957*Jameson Dickman, WSP USA; Rebecca Wilson, WSP USA

11:20 AM 11-June-2024 NC_2024_0163.pdf **DOI:** https://doi.org/10.3397/NC_2024_0163 *Mitigating vibration from building systems in a second-floor laboratory...969*AnnMarie Hirsh, Babich Acoustics

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AI-powered Noise Recognition & Classification System

Denis Poulin, Seti Media inc.; Thierry Noel, Seti Media inc.

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An isolated ceiling hanger to be seen, not heard.

Bradlay Hunt, CDM Stravitec; Alfredo Rodrigues, CDM Stravitec

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Vlacoustics solutions for acoustic measurement

Jeff Guy Schmitt, Vlacoustics

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Automated Noise Identification (ANI)

Paul McDonald, Sonitus Systems

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Vibro-acoustic materials analysis: Diving into characterization techniques and simulation

Kevin Verdiere, Mecanum Inc.; Julien Biboud, Mecanum Inc.; Simon Campeau, Mecanum Inc.

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Design improvements are simple and obvious and opportunities surround us

Bruce Burgess, Mull-It-Over Products

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Vibration isolation solutions with regupol

David Good, REGUPOL America LLC; Christopher Klinker, REGUPOL Germany

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Vision Noise Barrier Introduction

Patrick Harkins, Silentium Group

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Interoperability with CadnaA, CadnaB and CadnaR: a unique software system for extended acoustic calculations.

Antonio Notario Tévar, DataKustik GmbH

11:30 AM 11-June-2024 Oral Only *CadnaA Noise Prediction Software*

David James Smith, Scantek, Inc

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Case study of multiple impactors in athletic facility

Justin Reidling, Ecore International

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Urban Solution Group Presentation

Claudia Cardozo, Urban Solution Group; Brian Puckett, Urban Solution Group

Community Noise - Data Centers 1

Session Chairs: Joseph Horesco and Viken Koukounian

Room: Jackson

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Overview of Ingard, K. Uno, and George C. Maling Jr. 's 1974 paper on Physical Principles of Noise Reduction: Energy Considerations, Noise Reducing Elements, and Sound Absorbing Materials

Janith Godakawela, Michigan Technological University

10:40 AM 11-June-2024 Oral Only Overview of Cochran et. al.'s 1967 paper on What is the Fast Fourier Transform?

11:00 AM 11-June-2024 Oral Only

Yijie Zhang, Purdue University

Overview of "Properties of Sound Sources and Their Fields" by K. Uno Ingard and George C. Maling, Jr. Shaocheng Wu, Purdue University

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1:50 PM 11-June-2024 NC_2024_0101.pdf **DOI:** https://doi.org/10.3397/NC_2024_0101 Exploring the potential of recycled polypropylene-waste jute fiber composites for sound insulation: An experimental and theoretical analysis...1063

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1:50 PM 11-June-2024 NC_2024_0126.pdf **DOI:** https://doi.org/10.3397/NC_2024_0126

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Acquired hearing loss: Are prevention or reversal realistic goals?

Dr. Colleen Le Prell, University of Texas at Dallas

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Session Chairs: Seth Bard and Charles Oppenheimer Room: Camp

10:30 AM 12-June-2024 NC 2024 0022.pdf **DOI:** https://doi.org/10.3397/NC_2024_0022

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Session Chairs: Jeanette Hesedahl and Melinda Miller

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11:50 AM 12-June-2024 NC_2024_0155.pdf **DOI:** https://doi.org/10.3397/NC_2024_0155 Acoustic design considerations for mental and behavioral healthcare facilities...1371
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Community Noise - Noise Impact Assessment

Session Chairs: Paul Burge and Kenneth Kaliski
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10:30 AM 12-June-2024 NC_2024_0011.pdf **DOI:** https://doi.org/10.3397/NC_2024_0011 The European Environmental Noise Directive in Germany...1383

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10:50 AM 12-June-2024 NC_2024_0130.pdf **DOI:** https://doi.org/10.3397/NC_2024_0130 Streamlined process for determining noise mitigation requirements for new development projects...1388 Paul L. Burge, AECOM; Hunter Moore, AECOM

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11:30 AM 12-June-2024 NC_2024_0107.pdf **DOI:** https://doi.org/10.3397/NC_2024_0107 *Measurement and quantification of low frequency noise emissions from utility-scale wind turbines...1408* Michael Hankard, Hankard Environmental, Inc.; Justin Bowers, Hankard Environmental, Inc.; Lessa Cerio, Hankard Environmental, Inc.; Spencer Thomas, Hankard Environmental, Inc.

11:50 AM 12-June-2024 NC_2024_0092.pdf **DOI:** https://doi.org/10.3397/NC_2024_0092 Noise control tactics to balance the demand for sustainable energy storage, community tranquility, and environmental regulatory compliance...1418

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