

Automotive ACOUSTICS & VIBRATION



6th International Forum
22-23 September 2020, Virtual conference

ORGANIZED BY



interNéct

With featured experts, among others, from:



Porsche Engineering
driving technologies

HONDA
The Power of Dreams



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Testimonials:

"The event was eye opening for me. The attendees are subject matter experts and industry influencers."

Steve Homco, Ford Motor Company

"The presence and contribution of this conference makes it unique in the UK"

Clive Sutton, Ricardo UK

"Great networking event. Lots of customers and future customers in one place. Highly recommended"

Gary Rands, Siemens

"I've met many of the key players in the industry and understand their issues now so that we can look for solutions that suit their needs"

Phil Bownds, Brüel & Kjaer

"Based on the way that it has been organized and the high level of delegates that were here, including a lot of decision makers, we've met all the right people and I developed more leads than from most other exhibitions"

Matt Lucas, HBM Prencia

"One of the best Forums I have been to with respect to networking opportunities. Very well organised"

Tony Shepperson, Head Acoustics UK, Ltd.

"An excellent opportunity to network with likeminded industry professionals from supplier, OEMs and academia. We are all dealing with the same challenges and by sharing our knowledge we can all benefit!"

John O' Sullivan, Bentley Motors Limited.

Scientific Committee & Keynote Speakers:



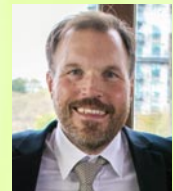
Aaron Hankinson
Head of Driven Attributes Engineering
Jaguar Land Rover, UK



Dr. Andrew Elliott
Reader in Vibro-Acoustics
University of Salford, UK



Alexandre Nunes
Senior Specialist in Vehicle Integration and NVH



Johan Stenson
Senior Director Driving Dynamics and Noise & Vibration Centre
Volvo Car Group, Sweden

Hear about the latest case studies on:

- ▶ Drivetrain acoustics & NVH in chassis, powertrain and body engineering
- ▶ Tyre noise dynamics, road noise and structural dynamics
- ▶ Active NVH control & sound quality enhancement
- ▶ Design of advanced pedestrian alert systems and minimization of environmental noise pollution

Discover innovative concepts in:

- ▶ The balance between refinement and acoustic character
- ▶ NVH versus energy efficiency, recyclability and environmental friendliness

- ▶ Noise Optimisation, interior and exterior sound design for EVs and HEVs and fully autonomous vehicles
- ▶ Full NVH simulation, testing and validation, acoustic integration and attribute balancing

Learn about advanced technologies in:

- ▶ Aero-acoustics technologies, duct acoustics and combination of acoustic and thermal performance optimization
- ▶ Structural dynamics and materials science, metamaterials and cost-efficient solutions with lightweight passive NVH tools



To Register: **T** +1 604 726 5530 | **E** info@internect.ca

<https://www.internect.ca/content/3/international-forum-automotive-acousticsvibration-nvh-2020>

AGENDA | SEPTEMBER 2020

Sponsorship Opportunities:

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Brüel & Kjær has led the Sound & Vibration field for over 75 years, and that is not about to change. Brüel & Kjær's Automotive division helps customers solve NVH challenges by developing advanced technology for measuring and managing sound and vibration. The solutions and technology we provide shorten development time, ensure component quality and optimize vehicle performance. We offer advanced NVH solutions like the NVH Simulator and DISCOM NVH Analysis systems. <http://www.bksv.com>



DEWESoft have been providing market leading measurement solutions for nearly twenty years, covering many different measurement applications across all industries, but traditionally with a strong focus on the Automotive market. DEWESoft offers highly effective solutions for NVH measurement applications such as Modal Analysis, Rotational and Torsional Vibration, Order Tracking and Balancing, Orbit Analysis, Human Body Vibration and Shock Response spectra, Octave Analysis, Sound Level Metering, Sound Power, Sound Intensity and Sound Quality analysis. With a refreshingly fair approach to software licensing and no ongoing maintenance costs, DEWESoft offers one of the most versatile and cost-effective NVH measurement solutions on the market. <https://dewesoft.com>



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How?

Please contact us for detailed information:

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Email: info@internect.ca

FEATURED EXPERTS:



Matthew Aaron Hankinson
Head of Driven Attributes Engineering
Jaguar Land Rover, UK



Dr. Andrew Elliott
Reader in Vibro-Acoustics
University of Salford, UK



Alexandre Nunes
Senior Specialist in Vehicle Integration
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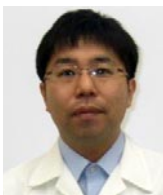
Johan Stenson
Senior Director Driving Dynamics and
Noise & Vibration Centre
Volvo Car Group, Sweden



Giorgio Adriano
NVH Simulator Account Manager
EMEA
VI-grade Srl, Italy



Andrzej Pietrzyk
Senior Engineer
Volvo Car Corporation, Sweden



Masashi Miyazawa
Assistant Chief Engineer
Honda R&D Co., Ltd., Japan



Yuri Ribeiro Silva
NVH Manager
NIO Co., China



Benjamin Bernard
NVH Lead Engineer
*Porsche Engineering Services GmbH,
Germany*



Andrew Jackson
Sound Quality Engineer
Bentley Motors Limited, UK



Laurent Gagliardini
NVH Expert
Groupe PSA, France



Jean Le Besnerais
R&D Engineer, CEO & Founder of
Eomys Engineering
Eomys Engineering, France

VIRTUAL CONFERENCE PROGRAMME

Forum Day One

Tuesday, 22 September 2020

(Note: The programme references UK time)

8:00-8:10 Welcome & opening speech by the organiser



Maria Nikolopoulou
CEO
Internect Forums Limited, Canada

8:10-8:20 Keynote speech [Session chaired by Johan Stenson]



Johan Stenson
Senior Director Driving Dynamics and Noise & Vibration Centre
Volvo Car Group, Sweden

8:20-8:50 The Challenges for NVH over the Next 5-10 Years



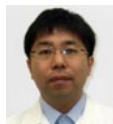
Matthew Aaron Hankinson
Chief Engineer Driven Attributes Engineering
Jaguar Land Rover, UK

- ▶ NVH challenges of RDE 2 emissions in ICE engines
- ▶ HEV vehicle targets
- ▶ Balancing NVH for stiffness and weight
- ▶ Focus on high frequency structural NVH

Sponsor
8:50-9:00 Dewesoft Presentation

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9:00-9:10 Huntsman Presentation

9:10-9:40 Post-Processing Technique and Analysis of Aerodynamic-Noise Sources Around a Vehicle



Masashi Miyazawa
Assistant Chief Engineer
Honda R&D Co., Ltd., Japan

- ▶ Full vehicle CAA
- ▶ Noise generation mechanism
- ▶ Vortex shedding and attachment
- ▶ Frequency analysis of flow field

9:40-10:10 Break

10:10-10:20 Keynote speech [Session chaired by Alexandre Nunes]



Alexandre Nunes
Senior Specialist in Vehicle Integration and NVH

10:20-10:50 How to Bridge the Gap between Testing and Simulation



Giorgio Adriano
NVH Simulator Account Manager EMEA
VI-grade Srl, Italy

- ▶ The HBK platform: B&K, HBM and VI-grade
- ▶ Virtual prototyping: from vehicle dynamics to ride and comfort - with calibrated sound and vibrations
- ▶ A unique offering for the Automotive industry
- ▶ The right context for the right simulation: listen & feel

10:50-11:20 Novel Acoustic Materials for NVH Applications



Dr. Andrew Elliott
Reader in Vibro-Acoustics
University of Salford, UK

- ▶ Novel acoustic materials and how to create them
- ▶ Graded index metamaterials the "Acoustic Black Hole"
- ▶ Adsorptive materials such as activated carbon
- ▶ Materials characterisation
- ▶ Additive and subtractive manufacturing

11:20-11:35 Break

11:35-12:05 Interactive Session - Panel discussion: Lightweight versus Advanced NVH Performance Chaired by our Scientific Committee



Matthew Aaron Hankinson
Chief Engineer
Driven Attributes Engineering
Jaguar Land Rover, UK



Alexandre Nunes
Senior Specialist in Vehicle Integration and NVH



Johan Stenson
Senior Director
Driving Dynamics and Noise & Vibration Centre
Volvo Car Group, Sweden



Dr. Andrew Elliott
Reader in Vibro-Acoustics
University of Salford, UK

- ▶ Does lightweight and durability go hand in hand?
- ▶ Cost and efficiency under consideration
- ▶ NVH and business considerations when choosing a supplier

12:05-12:35 Interactive Session - Team Debate with Q&As In small groups you will have the chance to share your views in a lively debate while solving a technical question.

12:35-12:40 Closing remarks by the organisers & end of Virtual Forum Day 1



Maria Nikolopoulou
CEO
Internect Forums Limited, Canada

Forum Day Two

Wednesday, 23 September 2020

(Note: The programme references UK time)

8:00-8:10 Welcome & opening speech by the organiser



Maria Nikolopoulou
CEO
Internect Forums Limited, Canada

8:10-8:20 Keynote speech [Session chaired by Aaron Hankinson]



Matthew Aaron Hankinson
Chief Engineer Driven Attributes Engineering
Jaguar Land Rover, UK

8:20-8:50 An Evolution Perspective on Active Control Technologies



Alexandre Nunes
Senior Specialist in Vehicle Integration and NVH

- ▶ Current status of active controls on vehicle application
- ▶ Active controls as an enabler to improve mobility experience: Quietness, Motions and Ride comfort
- ▶ The machine learning approach
- ▶ Learnings and future developments

8:50-9:20 Active Noise Control for Electric Vehicles



Yuri Ribeiro Silva
NVH Manager, NIO, China

- ▶ Introduction to existing active control systems
- ▶ Considerations for electric vehicle applications
- ▶ Case studies for road noise and HVAC system noise control
- ▶ Challenges and future perspectives

9:20-9:50 Break

9:50-10:20 Panel Discussion: Electric Car Sound Enrichment – How to Engage with the Driver



Benjamin Bernard
NVH Lead Engineer
Porsche Engineering Services GmbH, Germany



Dr. Andrew Elliott
Reader in Vibro-Acoustics
University of Salford, UK



Andrew Jackson
Sound Quality Engineer
Bentley Motors Limited, UK



Laurent Gagliardini
NVH Expert
Groupe PSA, France



Jean Le Besnerais
R&D Engineer, CEO & Founder of Eomys Engineering
Eomys Engineering, France

- ▶ Electric sound character – can it be emotional?
- ▶ What make a sound real or plausible?
- ▶ Should it be adjustable by the driver?
- ▶ Where the sound source should come from?

10:20-10:30 Keynote speech [Session chaired by Andrew Elliott]



Andrew Elliott
Reader in Vibro-Acoustics
University of Salford, UK

10:30-11:00 Audio CAE - CAE Techniques for Car Audio System Development



Andrzej Pietrzyk
Senior Engineer
Volvo Car Corporation, Sweden

- ▶ Simple speaker model and its implications
- ▶ Low frequency issues - FE analysis of interaction of speaker with car body structure
- ▶ Mid & High frequency issues - detailed FE modelling of the vicinity of the speaker
- ▶ Application of Ray Tracing technique to Audio CAE

11:00-11:15 Break

11:15-11:45 Interactive Session - Panel discussion: The Automotive Engineering Future after Coronavirus

Chaired by our Scientific Committee



Matthew Aaron Hankinson
Chief Engineer
Driven Attributes
Engineering
Jaguar Land Rover,
UK



Alexandre Nunes
Senior Specialist in
Vehicle Integration
and NVH



Johan Stenson
Senior Director
Driving Dynamics
and Noise &
Vibration Centre
Volvo Car Group,
Sweden



Dr. Andrew Elliott
Reader in
Vibro-Acoustics
University of
Salford, UK

- ▶ Effective remote working from personal experience
- ▶ Is CAE and virtual prototyping more necessary than ever?
- ▶ New platforms for effective sales and marketing for suppliers
- ▶ The future of the Automotive industry

11:45-12:00 Closing remarks by the organiser



Maria Nikolopoulou
CEO
Internect Forums Limited, Canada



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	Basic Package 2	£349	Day 2 Virtual Conference + Day 2 Conference Documentation

*All Prices are in GBP (Great Britain Pound Sterling)

Delegate Details:

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First Name: _____ Last Name: _____

Job Title: _____ Department: _____

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