AES TCAA Web meeting 4/21/21

Whitepaper on In-Vehicle Measurements – Update

Pat Dennis and Steve Hutt gave an update on progress of the paper.   It will focus on 3 areas of measurement, Frequency Response, Max SPL and Impulsive Distortion, formerly buzz, squeak, and rattle.   Currently in the mode of data gathering from various vehicle systems and analyzing.   Have found that different ways of pink noise generation along with differing ways of analyzing have resulted in some differences. If one octave or 1/3 octave analysis is used differences are small. Also investigating if microphone orientation affects results (up, down, car forward, rearward, etc).
Goal is to complete paper by end of this year.   This paper will be a living document and the release at the end of the year will be considered version 1.   As more experience is gained it is imagined this paper will evolve over time.

A first version (light) will be prepared for presentation in technical program at the Fall 2021 AES Show (Las Vegas).

Upcoming Events
Next reviewed AES upcoming events in general which can be found here:
https://aesshow.com/

APEI – Automotive Audio Webinar: Acoustic Vehicle Alert Systems (AVAS) and Automotive Sound Design 4/27/21 @ 11:00EST
https://audioproducteducationinstitute.org/acoustic-vehicle-alert-systems-avas-and-automotive-sound-design/

The webinar will offer the first open discussion in the audio community of Acoustic Vehicle Alert Systems (AVAS) and external Sound Design of automobiles. This session will cover the legislation around silent vehicles, the regulations created both in Europe and the U.S. how they differ and how they could conflict with existing vehicle noise regulations. The creative tools for design and main features to consider in audio processing in automotive audio applications, the exterior sound design of vehicles and AVAS, and by extension interior sound enhancement, will be covered.

Panelists will discuss topics on the following:
Jereon Lanslots (Siemens): Regulations for the industry
Markus Bodden (Neosonic): Sound Design for AVAS & NVH
Agnieszka Oltarzewska (Siemens): Subjective evaluation of created sounds

Presentations are less detailed in technical details and more focus on hands-on, experiential, practical examples, in more of a conversational style.

This presentation will be recorded for future viewing in case you miss the live event.

General APEI website can be found here: https://audioproducteducationinstitute.org.

If you have ideas for future APEI events or would like to participate in presenting please contact Roger https://www.aes.org/technical/aa/ .

Spring AES Show in Europe https://aesshow.com/spring2021/
Show will be virtual and is slated for May 25-28, 2021
Interesting presentations scheduled are:

1. The Sound of Things presented by Agnieszka. Not tied to Automotive but general overview of NVH SQ of things (e.g. vacuum cleaners, etc).
2. Our Roads to the Automotive Industry panel discussion being held by Shelley Uprichard with 5 female engineers in the Automotive Audio Industry. Planning to have Engineers in fields of Automotive Tuning, Upmixers, NVH in general, and DSP coding to name a few.
3. The Boring Allpass Filter? Presented by Jayant Datta.

Pre-recorded presentations are in the works and are due by beginning of May.

This show will be a bit more interactive than previous virtual shows. Will have Zoom Rooms to meet the authors. Also looking for a way for attendees to interact with one another (i.e. hallway discussions of live events) by use of an app similar to Discord used in the gaming world.

AES Fall Show in US
The fall show will be a hybrid version, technical portion virtual with exhibits in Las Vegas, NV slated for Oct 11-13, 2021. Show will be collocated with NAB Show and online at aesshow.com/fall/2021. Website will be forthcoming.

If anyone has any ideas for presentation at the show please let Roger know https://www.aes.org/technical/aa/

Automotive Audio Conference, June 8-10 2022
Scheduled to be held at Ford Conference Center in Dearborn, MI, USA.
http://aesshow.com/automotive2022/

Call for Papers is open! https://aesshow.com/automotive2022-contributions/ Dewey Du is papers chair.

This will be the 5th conference and hoping it will be live but preparing for streaming as well.
- Currently have 3 Keynote presentations planned
- Communications team will keep the information flowing

New for this year is a news feed site.
https://www.aes.org/conferences/2021/automotive/newsroom.cfm It is meant to be a

place for fresh news about the conference and the information from the planning committee and keynotes prior to the event, during the event, and afterward.

SAE Conference on NVH
To be held Sept 7-10, 2021 in Grand Rapids, MI   https://www.sae.org/attend/nvh
Roger will be giving a keynote address on crossover between acoustic design for audio and NVH.   More and more automotive audio systems are also handling NVH duties and Roger will expound on this.

Machine Learning Technical Council
Steve Hutt mentioned that the AES has added a Technical Council on Machine Learning. It will overlap many TC's so if interested please contact Steve Hutt.
https://www.aes.org/aes/stevehutt

Open Discussion
Before the meeting was closed Raf asked if anyone had any topics of interest. Shelley Uprichard mentioned remote tuning.   Due to the pandemic remote tuning has become a real thing.   Roger brought up he has been involved with this already.   Roger and Shelley will discuss ways to bring this new way of tuning to light.

Dewey Du brought up automatic VR for vehicles.   Noted that in consumer products using the internet for feedback was a mature process, but maybe not so in automotive. Mentioned VR is usually a black box item in most designs but how is the quality of the voice signal quantified.   Christian Hoene mentioned the metric of Speech Intelligibility Index as well as ways of assessing in the ITU standards.   Roger to discuss possible future presentation with Dewey, Christian and Thomas Gmeiner looking at the system beginning with the microphone aspect all the way through to final output.

AES TC-AA LinkedIn Group has been started!
https://www.linkedin.com/groups/12424742/

This is a private group so if you are interested joining must have a LinkedIn account and contact any of the following members through LinkedIn to be added:
Rafael Kassier
Roger Shively
Patrick Dennis

TC-AA Next Meeting
The next meeting to be held close to AES Spring Show in May. Details will be forthcoming.