

AES TCAA Web meeting 12/17/19

Reviewed current TC-AA website (Mission, Areas of Concentration, Current Areas of Work, Planned/Recent Activity, Automotive Audio Trends). Minutes of past meetings can be found here as well. <http://www.aes.org/technical/aa/>

Looking at setting up a private LinkedIn site for communication and postings. Have contacted AES HQ and they said they would help. Development ongoing.

AES Vienna, the 148th European Pro Audio Convention, May 25-28, 2020

Call for contributions is open until January 6, 2020. Sessions will be determined by February 14, 2020. If get enough Automotive content can have our own session. Submit contribution (Papers, Workshops, Tutorials) proposals here: aes.org/events/148/authors/cfc/

Workshop Suggestion: It's All About the Bass! (Moderator: Rafael Kassier)
Panelists: Ben Kok, Martin Olsen, Mandy Parnell (pending), Greg Sikora
Abstract: With great power comes great responsibility. Digital signal processing (DSP) has given us the ability to correct for colorations in audio reproduction systems, but what if these coloration are natural and/or expected? Is there a "natural" bass boost in rooms which becomes more significant in smaller rooms and even more so in smaller spaces like automotive cabins? Do humans expect this boost? Is soundfield control the answer? Automotive sound systems also need to reproduce sound in the presence of significant low frequency noise. How is road and engine noise dealt with? Is active compensation the answer? What is the impact of all of this on music reproduction, and particularly on the reproduction of that all-important bass? The answers to the important quests are the subject of this panel discussion of leading industry experts from simulations, acoustics, automotive audio and music production

Some ideas for other proposals are:

1. Immersive Audio
 - a. Immersive native Formats (Sony, Dolby, others???)
 - b. Upmix immersive formats (Harman, Fraunhofer, Auro, ?)
 - c. Discuss current state, future development and needs
 - d. Engage universities (call for contributions) to research objective methods to assess spatial perception / spatial quality of sound stage in car cabins (long term activity, we could run a specific track of papers within convention or conference). Currently there's very little to none research in this area.
2. Workshop on High Efficiency systems
 - a. What is HiE for transducers and amplifiers
 - b. What is impact of HiE on an overall performance of EV range comparing to component weight optimization
 - c. Conference or Convention?
3. Workshop on Microphones in Cars

- a. Very little discussions or papers on this topic within AES
- b. Workshop to discuss automotive mic specs and microphone architectures to cover automotive needs (cancellation technologies, compensation technologies, hands-free, beamforming, etc.) – so far there's no established standard how to deal with system complexity
- c. Initial workshop could be then transformed into working group to write a recommendation

Will reach out on TC-AA reflector to see if there are other interested parties to participate in a workshop on in-vehicle microphones. Contact Dewey (Yu.Du@harman.com) if interested.

Jonatan from Volvo brought up idea of workshop on measurements for Vienna. This has been done in New York and at the last Automotive Audio Conference. Could be keep the momentum going.

Dewey from Harman is currently working on a paper on microphones and may submit for Engineering Brief consideration in Vienna.

Samira from IAV will be submitting a paper on ANC work for Vienna. ANC is becoming an integral part of automotive audio systems. A separate subcommittee may be formed in the future if there is enough interest.

Future Convention Workshop Proposals

Dilip from Bose suggested workshop on computational platforms for automotive audio. Dedicated audio platforms have been provided in the past by ADI, NXP and other vendors. In addition ARMS are getting popular for audio processing as are the Snapdragon chips from Qualcomm. Workshop could be a tutorial to get the series started. Dan Foley of Audio Precision said he could help with contacts for potential contributions.

Standards

Greg Sikora from Harman has suggested a white paper submission for “Best practices of in-situ acoustics and max SPL measurements”. Those who heard the idea expressed interest to be a part of the committee. Interested parties are:

- Steve Temme
- Steve Hutt
- Jonatan Ewald
- Pat Dennis

A formative meeting to discuss scope and next steps will be forthcoming. If interested in participating please contact Greg Sikora through TC-AA <http://www.aes.org/technical/aa/>

Automotive Audio Conference for 2021

Initial planning has begun! Looking for venue possibilities as well as potential sponsors. Possible location is Detroit, Michigan USA. Dan Field of Panasonic and Samira Mohamady of IAV expressed interest on being on the committee. If interested in participating please contact Roger.

Next web meeting in mid February 2020. Keep a look out for the meeting notice!