

## TC-AA AES 147<sup>th</sup> Meeting Minutes

### Chair/Co-chair changes

Alfred has stepped down as chairman. The following appointments have been made:

Roger Shively – co-chair US

Greg Sikora – co-chair EUR

Pat Dennis – co-vice chair US

Rafael Kassier – co-vice chair EUR

The chairs would like to thank Alfred for a job well done getting the committee on track and giving us some great momentum. His leadership will be missed. This is a great new team and we will hope to continue the forward momentum generated by the TC-AA

Reviewed past meeting minutes briefly to show activity within the committee. Please visit <http://www.aes.org/technical/aa/> for past minutes.

### Trends

Reviewed trend list for any updates/additions.

- Distributed DSP is still being popular as increased demand on processing continues
- See need for common audio architecture between OEMs. Suppliers having hard time with differing strategies causing increasing complexity and inefficiencies.
- Microphone Arrays – seeing multiple microphones in-vehicle, but not sure if being used as arrays.
  - o Road Noise Cancellation is gaining momentum
  - o Seems automotive has good systems approach to audio but not so much to microphone applications
  - o Mics – there is need for wider frequency mics, current ones have restricted bandwidth and are only used for certain applications.
- 3D Audio –is it becoming a commodity?
  - o No/very little discreet audio for such systems
  - o Discussed that there were streaming services for immersive audio being talked about and it could become a very hot topic soon.
- High Efficiency – OEMs mainly concerned about weight than current consumption at the moment.
  - o Suggested a possible workshop for future convention on what does high efficiency really mean?
  - o Brought up how DSP can make up for speaker deficiencies to help make system more efficient
- Power/Performance – mentioned next version of AES2 2012 will use volts and impedance instead of power.
  - o Talked about move to spec out system instead of components – panel to be held at 147<sup>th</sup> in NY.
- Sound zones/bubbles – being mainly used for ADAS, emergency alerts, NAVI prompts and BTHF phone conversations, not necessarily for music at this time.

### **Automotive Audio Conference held in Germany**

Report on automotive conference will be forthcoming in the AES journal. From those attended they thought conference was very good, good location, good papers, good topics of discussion, good demo cars. Complaints were cost of attending and conditions at the venue for exhibitors. Apparently it cost a lot, and as an exhibitor one was not allowed into the papers sessions, and the exhibits were “dead” when the papers were happening. There was a request to look at the cost structure from one exhibitor. The exhibitors paid to attend and to exhibit, and they were on a separate floor of the venue than where the papers were. The breakouts didn’t encourage traffic to the other floor. The venue was praised but the lack of traffic needed to be reassessed.

Looking at doing another conference in a couple years and looking for suggestions for possible locations. The TC Chairs will need to survey the possible US (Detroit) and Asia (Korea, Japan) locations. We will need to also look at the conflicts with the US AES Convention and the very popular Headphone Conference which is on the same cycle with the Automotive Conference. It was difficult for some to commit to three months in a row of Headphone Conference, Automotive Conference, US Convention.

### **Conventions**

Talked about having an automotive audio paper session at international conference. Would it gain enough interest by attendees?

### **AES Vienna 2020, Austria Center, Vienna, May 25-28**

Rafael Kassier is holding a panel discussion – It’s all about the Bass! Covering the following topics:

- Is the “bass boost” in small rooms, and more so in automotive cabins “natural”?
- Should be tune it away?
- Do humans expect this boost?
- What is the exact nature of this boost?
- Is soundfield control the answer?
- What about road and engine noise?
  - o Is active compensation the answer?
- What is the impact on the musical playback?

Examine from the following angles:

- Simulation/Physics
- Very small room acoustics
- Automotive real world issues
- Impact on the music

### **Next meeting**

Web Meeting sometime in mid-December. Keep a lookout for the meeting notice. Suggested date is Dec 17.