

AUDIO ENGINEERING SOCIETY
Technical Committee on Audio Forensics Meeting
131st AES Convention – New York
October 22, 2011

Meeting began at 2:00 p.m.

Present: Jeff Smith; Chair, Eddy Brixen; Vice Chair, Marisa T. Déry, Daniel Fuller, Catalin Grigoras, Keith McElveen, Christoph Musialik, Myke Roy, Jacob Steinhour, Dennis Walsh, Charles Van Winkle.

130th AES Convention – London, May 13-16, 2011

- Eddy Brixen briefed the committee on the events of the 130th AES Convention in London.
- The Technical Committee on Audio Forensics met and discussed upcoming conventions and conferences. Also discussed was the wide variety of voice identification techniques. The committee suggested that the Scientific Working Groups (SWGs) and the National Center for Media Forensics (NCMF) could work with Technical Committee to develop workshops, paper sessions, or presentations addressing the broad spectrum of speaker recognition techniques.
- The Technical Committee also noted the need for a list of organizations that work with audio forensics to post on the AES website. This would help to spread the word about events like the 46th AES Conference on Audio Forensics, but also to know who is working in the field.
- Jeff Smith noted that the National Center for Media Forensics (NCMF) has a significant database of contacts. A listing of organizations from the database could be compiled for the Technical Committee website.
- The Technical Committee also chaired a workshop on audio forensics at the 130th Convention. If any Technical Committee members have interest in viewing the video of the workshop, they were asked to e-mail Jeff Smith at jeff.smith@ucdenver.edu.

46th AES Conference on Audio Forensics – Denver, June 14-16, 2012

- Jeff Smith updated the Technical Committee on the status of planning for the 46th AES Conference on Audio Forensics.
- Materials for the AES 46th Conference on Audio Forensics were distributed, including the call for papers and a promotional flyer.
- Deadlines for paper submission, preliminary schedule, and potential paper topics were reviewed. Paper proceedings will occur on the first two days of the conference, with workshops being held on the final day. There will also be a social event coordinated in downtown Denver.
- The venue is the Warwick Denver Hotel. The physical layout of the conference space was reviewed. The exhibition space will be adjacent and open to the conference proceedings.
- The NCMF will be hosting courses before and after the conference: Forensic Authentication of Digital Audio (June 11-13) and Forensic Audio Enhancement (June 18-20.)

- Attendance is anticipated to be high and feedback so far has been positive.
- The Conference Committee includes:
 - Chair: Jeff Smith
 - Papers Co-Chairs: Durand Begault and Catalin Grigoras
 - Workshop Co-Chairs: Eddy Brixen and Christopher Peltier
- Feedback on the conference planning was requested from the Technical Committee. Potential workshop/tutorial topics were discussed. An emphasis on practical techniques – particularly in workshops – was requested. Jeff Smith will send out a solicitation for engineering briefs to help facilitate this.
- It was noted that there will likely be very few papers on audio forensics at the 132nd AES Convention in Budapest, as they will more likely be submitted for the conference in Denver. It was suggested to do a workshop on audio forensics in Budapest to attract interested parties to the field and spread the word about the conference.

Anthology on Audio Forensics

- Durand Begault has proposed for the committee to compile an anthology on audio forensics, which he has volunteered to edit. This would be published through AES and include papers from AES and elsewhere. The project would take approximately 12 months. He will develop criteria for inclusion/exclusion which could be shared with the Technical Committee. Authors would be able to provide updated versions of papers. Also included would be the Watergate tape reports and the acoustic report on the gunshot analysis of the JFK assassination. Both a paper and digital version with OCR would be useful.
- The Technical Committee members discussed the potential project and expressed support of the anthology, especially if it included papers outside of AES. There was unanimous support for the project. Keith McElveen expressed interest in assisting.

Trends in Audio Forensics

- Jeff Smith announced that the Technical Council has solicited the Technical Committee on Audio Forensics to update a document identifying emerging trends in the field of audio forensics to be published in an AES Journal within the next year. The last time this was submitted to the Technical Council was in 2007.
- Topics from the 2007 document included audio authentication, voice identification, enhancement of recordings, and upcoming events dealing with audio forensics. The Technical Committee discussed potential updates to the document including:
 - Replacing the term ‘voice identification’ with ‘speaker recognition and automatic speaker recognition’ to be consistent with scientific expectations in the field. Also a definition of these terms will be included.
 - Identifying new tools developed in the last few years to assist with enhancement of digital audio.
 - Removing the specific references to 50 and 60 Hz with regard to audio authentication using ENF analysis.
 - Addressing the challenges of examiner qualifications and how forensic science is impacted as a whole. This is primarily as a result of the National Academy of Science survey and report on forensic sciences in the United States.

- Including innovations in noise reduction, speech clarification, and source separation as important developments in the field, especially with regard to cell phone technology.
- Addressing the challenges facing the field in tool validation and likelihood ratios and the need for literature in these areas.

Meeting ended at 3:01 p.m.

Jeff Smith approved 3/19/2012