AES SWISS SECTION NEWSLETTER

136th Issue

The AES presents a Special Event!

A combined meeting of the Diploma Ceremony for the graduates of the 2015 "Sound Technician" exams and "An Evening with Michael Kelly"

Thursday, the 3rd of March 2016, 17h00
At Paul Klee Zentrum, Monument in Fruchtland 3, 3006 Bern

SPEAKER: Michael Kelly

LANGUAGE: English

Schedule:

16:15 Doors open and accreditation

17:00 2015 Diploma Ceremony & Presentation from Michael Kelly (Audio for Games)

18:45 Apéro in the foyer of the ZPK

20:00 Optional dinner at Schöngrün restaurant

Dinner: Menu: Fr.75.- (drinks NOT included)

The closing date for dinner inscription is **February 21.** Do not forget to specify if you want a vegetarian menu.

Please register for meeting and/or dinner as soon as possible at this address: **aes.ec.ch@gmail.com** or as usual at the web address: **www.swissaes.org** (under programme).

NOTE: participants must sign up for the dinner beforehand and not on the day, due to logistics. Prepayment is recommended and payment slips may be obtained upon request by e-mailing **lauragoeldlin@2mc.ch**

Public transport:

Bus 12 (terminus at Paul Klee Zentrum).

Guest Speaker bio

Michael Kelly: Director of Research and Development at DTS and works on spatial audio algorithms used in games and other media. Kelly is also co-chair of the AES Technical Committee on Audio for games and chairs the AES Audio for Games conferences, held every two years.
He has over 10 year's experience in the games industry working on both the creative and technical aspects of games.
Michael began his career as Lead Sound Designer at Revolution Software working on Broken Sword: The Sleeping Dragon. Following this, he was responsible for the implementation of high quality DSP effects on a number of platforms at Creative Labs and led 3rd-party audio tools and high-level library development for PS3 and Vita at Sony Computer Entertainment Europe.
He has a PhD in Electronic Engineering from the University of York, specializing in 3-D audio and Audio Coding.

REPORT ON PREVIOUS MEETING

Low frequency mode control using active subwoofers

3rd of September 2015, Relec SA, Yverdon-les-Bains

SPEAKERS: Véronique Adam, AudioNetworks SA / Goldmund
Alain Roux, Relec SA / Psi Audio
Antoine Pittet, David Strobino, HEPIA GE
Hervé Lissek, EPFL

REPORTER: Véronique Adam

Around 50 people gathered on this Thursday afternoon in the premises of Relec SA, in Yverdon-les-Bains.

Véronique Adam opened up the meeting with a brief presentation of the CTI/KTI project named "INTERACTS" for Intelligent low-frequeNcy acoustic Equalization of Rooms using Active ConTrol Subwoofers. She explained the framework of this project and the original feature of gathering four un-competitor partners: two academic partners (EPFL and HEPIA) and two industrial partners (Relec SA [Psi Audio] and AudioNetworks SA [Goldmund]). She explained their innovative idea to develop active subwoofers acting as sound absorbers to equalize naturally in time and level the low frequency behaviour in different types of listening rooms.

The first speaker was Alain Roux, who gave an overview of the basic principles of acoustics and especially of those related to the low frequency behaviour in standard size rooms.

After this theoretical introduction to the problems generated by low-frequency modes, the next presentations explained the two technical solutions developed in the framework of the Interacts project:

1. The analogue architecture solution called "Low frequency absorption by velocity control through acoustic resistance" was presented by Antoine Pittet and David Strobino from the Hepia GE. They described the theory of porous layers and the implemented solution using an acoustic resistance (micro-perforated metal sheet) and a subwoofer used as a velocity transducer
2. The digital architecture solution called "Low frequency absorption by hybrid sensor-/shunt-based impedance control" was described by Hervé Lissek from the EPFL. He explained the theory of loudspeaker diaphragms used as membrane absorbers and the implemented solution using an hybrid impedance control architecture enabling the absorption on a wider frequency range to be optimized.

For both analogue and digital architectures, the speakers presented some very convincing measurement results based on the preliminary tests carried out with the prototypes in real conditions.

After the presentations, the attendees were invited to test both technologies in the Relec SA demo room. They had the possibility to test the room absorption using one to eight prototypes, in order to grasp the naturalness of these absorption solutions provided in time and level.

After the official event, the discussions about this interesting topic went on in a friendly restaurant nearby.

The Swiss AES section would like to thank warmly Mr Roger Roshnik and the Relec team for their kind collaboration and for the aperitif offered in their premises.

NB: The PDF of the presentations are available on the website of the AES Swiss Section.