Fraunhofer IIS

Job-Titel:
MA Thesis Students/Interns: Quality of Experience in modern audio-visual Setups

Job-Beschreibung
FOR THE »AUDIO AND MEDIA TECHNOLOGIES« DIVISION IN ERLANGEN, THE FRAUNHOFER INSTITUTE FOR INTEGRATED CIRCUITS IIS IS CURRENTLY SEEKING

MASTER THESIS STUDENTS OR INTERNS FOR THE TOPIC: QUALITY OF EXPERIENCE IN MODERN AUDIO-VISUAL SETUPS

Fraunhofer IIS has become known worldwide for its significant participation in the development of audio coding technologies like mp3 and AAC. Providing major contributions to the standardization and the deployment of MPEG-H 3D Audio for next generation TV broadcast, we have shown once more that we are on the cutting edge of innovation. For a successful introduction of these new codes in the consumer market, we are currently developing devices for the playback of these new 3D-Audio standards at home, such as soundbars.

What is this about?
Fraunhofer IIS has openings in the research field of reproduction devices that enable a user-friendly playback of 3D-Audio at home, such as soundbars. Potential work includes the implementation or evaluation of recent methods, e.g. by performing measurements and conducting listening tests under real-world conditions.

Current consumer technologies have moved towards large screen for visual display in combination with dedicated devices for sound reproduction, such as soundbars. Both types of devices are designed to deliver the best picture and sound quality respectively using state-of-the-art technologies.

It is, however, known, that different senses interact as shown for spatial perception with the ventriloquism effect. A good media experience thus also relies on a suitable adjustment between both devices. A first source of potential mismatch between visual and auditory display may be due to mismatching spatial reproduction parameters such as perceived spaciousness and locations.

Your responsibilities:
The current project will look into the effect of a mis-alignment between audio and visual signals in the specific case of soundbar reproduction and large screen TV. Realistic signals, such as feature films and documentaries will be used as test material. Your work will range from creating test content to defining suitable test methodologies and according evaluation methods.

The aim of the master thesis is to evaluate and quantify sources of potential perceptual mismatches that have an effect on the user experience.

What you can expect from us
- An open and cooperative working environment
- Freedom to develop your own interests, knowledge and skills
- State of the art technology and equipment
- Flexibility concerning your working hours

If you have any questions about this opening, please contact hanne.stenzel@iis.fraunhofer.de

The thesis will be assigned and carried out in accordance with the rules of your university. For this reason, please discuss the thesis with a professor who can advise you over the course of the project.

Interested?
Please apply for this position using the following link: https://recruiting.fraunhofer.de/Vacancies/52278/Description/2
Applications are possible in German and English. Please include a cover letter, your CV and your latest transcripts of records (as PDF) and quote ID number 52278. Address your application to Nina Wörlein.

Please let us know how you learned about this job opportunity.

Additional information is available on our website: www.iis.fraunhofer.de/en
### Anforderungsprofil

**What we expect from you**

- You are currently studying "Tonmeister" or sound engineering
- You are interested in Psycho-Acoustics, 3D-Audio, listening tests and audio signal processing
- You have knowledge in MaxMSP and DAWs (Nuendo)
- You are interested in acoustic measurements and audio hardware

### Kontakt

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| Firmenname: | Fraunhofer IIS |
| Ansprechpartner: | Frau Nina Wörlein |
| Jetzt bewerben: | [https://recruiting.fraunhofer.de/Vacancies/52278/Description/2](https://recruiting.fraunhofer.de/Vacancies/52278/Description/2) |


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