



With us, you don't
just talk the talk,
you walk the walk.

Change starts with us.

Working Student / Intern (m/f/d) – Adaptive Binaural Reverb

The Fraunhofer-Gesellschaft (www.fraunhofer.com) currently operates 76 institutes and research institutions throughout Germany and is the world's leading applied research organization. Around 32 000 employees work with an annual research budget of 3.4 billion euros.

Listening to audio, such as music or movie content, via headphones typically results in a different experience as opposed to listening to audio via loudspeakers. The room acoustics and our spatial hearing capabilities contribute to a more immersive and natural sound. To enhance the listening experience via headphones, **binaural hearing** technologies have been developed that are capable to simulate the desired spatial and acoustic properties to a certain degree. In our group, we are working on adapting our binaural technology to different acoustic spaces. In particular, the reverberation must be matched in a perceptually satisfactory manner. To this end, different classical or machine learning-based signal processing algorithms are developed and tested. Designing a convincing demonstrator for an **adaptive reverb** and conducting listening tests are further crucial aspects of this project. Depending on your educational background, personal preferences, and current project status, you can contribute to any of these aspects.

You are interested in combining research and practices and would like to develop further in the field of adaptive binaural reverb?

Then have a look at our offer!

What you will do

- You implement and test state-of-the-art adaptive reverb algorithms
- You are conducting listening tests for a room-adaptive reverb
- You help to design a demonstrator to experience the technology

What you bring to the table

- You are currently studying Communications and Multimedia Engineering (CME), Advanced Signal Processing and Communications Engineering (ASC), Electrical, Electronical and Communication Engineering (EEI), Information Technology (I&K), Computational Engineering (CE) or similar (all Master)
- You are interested in audio and already have some experience with (audio) signal processing
- Nice to have: experience with machine learning

What you can expect

- **Flexible** working hours
- **Open** and **friendly team work**
- **Varied** tasks with room for **creativity**
- Exciting **seminars** and **events**
- **Networking** with scientists
- **Active contribution** in applied research
- **Interesting** and **innovative** projects
- **Mentoring program** »josephine@iis.fraunhofer.de« for talented female students

Your start date and weekly working hours will be determined individually with you (as a student assistant from **10** to **20** hours a week or as an intern for a period of at least three months). You can reduce your hours before exams and increase them during semester breaks. You can flexibly determine the working days. After your studies, there are attractive opportunities to join the institute on a full time or part time basis.

We would be happy to offer you the opportunity to write a bachelor's thesis or master's thesis in cooperation with us in the above-mentioned subject area. 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.

We value and promote the diversity of our employees' skills and therefore welcome all applications - regardless of age, gender, nationality, ethnic and social origin, religion, ideology, disability, sexual orientation and identity.

Interested?

Apply [online](#) now (PDF: cover letter, CV, transcripts). We look forward to getting to know you!

Fraunhofer-Institute for Integrated Circuits IIS

www.iis.fraunhofer.de/en

Requisition Number: 1787110

Application Deadline: none

Location: Erlangen

