

JOB OFFER

The Center of Competence for Hearing Aid System Technology – HörTech gGmbH – in Oldenburg, Germany, is a leading non-profit research institute in the field of audiological and acoustical developments related to hearing systems. HörTech is involved in numerous national and international projects regarding the development of hearing aid system technology as well as associated products. We are looking for a

Signal Processing Engineer (m/f)

in part-time (65 %), for a limited period until 31 March 2020, for the project mEEGaH-Stim (mobile EEG-based brain stimulation to improve hearing, see also <http://www.technik-zum-menschen-bringen.de/projekte/meegahstim>).

In mEEGaHStim, we intend to use brain-computer-interfaces (BCI) to improve hearing performance in complex listening situations. The BCI identifies which of several sources the hearing aid user is attending and then instructs the hearing aids to amplify that source and to suppress sounds from other sources.

Your challenge

- Develop automatic steering of beamformer algorithms in multi-speaker situations, using EEG input data
- Computational Auditory Scene Analysis (CASA) – estimate number and direction of multiple sound sources (speakers) simultaneously
- Digital source separation of identified sound sources and envelope extraction of these sources

Methods

- Real time digital signal processing for hearing aids
- Signal processing of EEG data in conjunction with sound processing
- Statistical analysis and correlation of data streams from acoustics and EEG

Your profile

- Master's degree or equivalent in electrical engineering, physics, computer science, audiology, or a related field
- Experience in acoustic signal processing
- Excellent programming skills in C++ and MATLAB

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Desired Skills

- Experience in CASA methods
- Experience in room acoustic modelling
- Experience in real-time processing

We offer

- Work on state-of-the-art software platforms in hearing aid R&D
- Interdisciplinary work with physicists, engineers, psychologists in the project mEEGaHStim
- A vibrant work environment with people excited about pushing the frontiers of applied hearing research to improve the situation of hearing impaired
- Close connections to various local and international research institutions and manufacturers
- Flexible time management, support of recreational and health activities
- Individual trainings
- Possibility to pursue a PhD if formal prerequisites are fulfilled by the candidate (co-operation with Prof. Hohmann, Universität Oldenburg).

Are you interested in working in a dynamic, growing international team of experts and organizing your field of activities in an independent and flexible manner? Then we are looking forward to receive your application. Please send your complete application (incl. letter of motivation, CV, certificates, preferably by email) by 30 June 2017 to:
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