



Opportunities
for Talents

TUM

Technische Universität München

The Professorship of **Audio Information Processing (AIP)** of the Technical University of Munich focuses on psychoacoustics, virtual and room acoustics, and hearing devices, like hearing aids and cochlear implants.

We are looking to fill a key position in our team in **Cochlear Implant Modelling and Algorithms** with a

PhD candidate or Post-doctoral research scientist (m/w/d)

as a full-time position to start at the earliest convenient date (open call).

MAIN RESPONSIBILITIES:

- Modeling auditory nerve responses to electrical stimulation and development of neural-model based stimulation strategies for users of auditory neuronal prostheses (cochlear implants)
- Developing listening tests to fit and verify stimulation strategies using direct stimulation of cochlear implants
- Statistical analysis of the results
- Publication in English-language scientific journals and presentations at conferences
- Supervision of student projects, assistance with teaching and with raising external funding.

QUALIFICATIONS:

- (Interest in completing a) Doctoral degree (PhD) in one of the following areas: auditory neuroscience, psychoacoustics, medical physics/audiology, audio technology, signal processing, or a related area
- Knowledge and experience desirable in neural modeling and models of the auditory system, designing and analyzing psychoacoustic experiments, direct stimulation of cochlear implants, algorithms for hearing devices, auditory perception, audio signal processing
- Very good programming skills in Matlab, Python, or C/C++
- Excellent written and oral communication skills as well as experience with scientific publications
- Knowledge and command of the German language desirable for working with cochlear implant users
- Flexibility and good interpersonal skills and interest in basic research and medical applications
- Interest in supervising students, helping with teaching and raising external funds.

We offer...

you the opportunity to join an interdisciplinary team, to work with up-to-date technical equipment including sound booths equipped with direct stimulation hardware for cochlear implants, an anechoic chamber hosting an audio-visual virtual reality system, and to learn about the latest methods in hearing research. Our close interaction with the Bernstein Centre for Computational Neuroscience Munich (www.bccn-munich.de), the Munich Institute of Biomedical Engineering (www.bioengineering.tum.de), the Graduate School of Systemic Neurosciences (www.gsn.uni-muenchen.de), the Hearing Research Network Munich, our extensive cooperation with industry and with scientific partners, and the numerous courses offered at TUM create an attractive environment with excellent perspectives for personal development. Please find further information at www.aip.ei.tum.de.

We offer a full-time position as academic staff with the opportunity to pursue a doctoral degree. Payment will be based on the Collective Agreement for the Civil Service of the Länder (TV-L/E13) and is initially for 1 year and intended to be extended. TUM explicitly encourages applications from qualified women. Applications from disabled persons with essentially the same qualifications will be given preference.

Interested?

I look forward to answering your questions on the phone (+49 89 289 28282) or by email. Please send your application (CV, supporting documentation) **preferably by email** to aip@ei.tum.de (position open until filled):

Prof. Dr.-Ing. Bernhard Seeber
Professorship of Audio Information Processing
Technical University of Munich
Arcisstrasse 21; 80333 Munich, Germany

Data Protection Information:

As part of your application, you provide personal data to the Technical University of Munich (TUM). Please view our privacy policy on collecting and processing personal data in the course of the application process pursuant to Art. 13 of the General Data Protection Regulation of the European Union (GDPR) at <https://portal.mytum.de/kompass/datenschutz/Bewerbung/>. By submitting your application you confirm to have read and understood the data protection information provided by TUM.