The Professorship for **Audio Information Processing (AIP)** of the Technical University of Munich focuses on psychoacoustics, virtual and room acoustics, hearing devices, auditory models and audio applications.

For research on **Cochlear Implant Modelling and Algorithms** we are looking for 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).

Your 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 measure performance with novel stimulation strategies in complex listening situations
- 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.

Your 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.

Our offer:

We offer you the opportunity to join a dynamic, 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, the Graduate School of Systemic Neurosciences, the Hearing Research Network Munich, our extensive cooperation with industry and with scientific partners, and the numerous talks and courses offered at TUM create an attractive environment with excellent perspectives for personal development. Please see www.aip.cit.tum.de, http://y2u.be/yN7vD1khTOI and www.tum.de for information.

We offer a full-time position as academic staff with the opportunity to pursue a doctoral degree. Salary is according to the Collective Agreement for the Civil Service of the Länder (TV-L/E13, 100%). The position is initially for 1 year and intended to be extended. TUM strives to raise the proportion of women in its workforce and explicitly encourages applications from qualified women. The position is suitable for disabled persons. Disabled applicants will be given preference in case of generally equivalent suitability, aptitude and professional performance.

Your application:

I look forward to answering your questions on the phone (+49 89 289 28282) or by email. Please send your expressive application **by email** no later than **03 November 2024** to Prof. Bernhard Seeber, aip@ei.tum.de.

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.