Universität Freiburg

IMBIT // BrainLinks BrainTools

acting thoughts

UNI FREIBURG

The centre BrainLinks-BrainTools / Intelligent Machine-Brain Interfacing Technology (IMBIT) at the University of Freiburg has a new opportunity for a PhD student in microsystems engineering starting on September 1st 2020.

PhD position TV-L E13, 85%

The position is available in the group of **Bioelectronic Microtechnology** lead by **Dr. Maria Asplund** (https://www.imtek.uni-freiburg.de/nachwuchsgruppen/asplund/) and will be tied to the new multi-partner European project NeuraViPeR (Neural Active Visual Prosthetics for Restoring function). In NeuraViPeR we will work in an international team to develop a neuroprosthetic system for visual restoration. We will use electrical stimulation directly in the visual cortex with the ultimate goal to provide an implantable solution for artificial vision (read more here: https://www.pr.uni-freiburg.de/pm-en/press-releases-2020/long-term-sight-on-the-horizon).

As a PhD student your role will be to develop refined microfabrication methods for the bioelectronic implant, as well as research on new electrode materials allowing more precise stimulation of brain tissue. The final project outcome should be an implantable system, where several thousand micro-sized electrodes allow electrical stimulation with sufficient precision to build up meaningful visual perceptions.

For the project we are looking for a PhD student with the following profile:

- A degree in microsystems engineering, electrical engineering, biomedical engineering or similar.
- Motivation to work in an interdisciplinary project team. In NeuraVipeR, the partners come from neuroscience, microelectronics, and computer science, so ability to communicate across disciplines is vital.
- A genuine interest in experimental work and engineering. Previous experience of practical work in the area of microsystems engineering is desirable but not essential.

As we are an international project team, good communication skills in English are required, as well as willingness to travel to visit the European partner labs and to present the work in international conferences. In addition to the research, you will be actively involved in preparing annual progress reports and support in project management and meetings. The project runs over 4 years starting September 1st 2020.

What we offer is an excellent environment for developing expertise in the exciting field of Bioelectronic Engineering and Brain-Machine Interfaces. Freiburg is right in the heart of the Black Forest region of southern Germany. The microsystems engineering department (IMTEK: https://www.imtek.uni-freiburg.de) is well known as a strong-hold for Neurotechnology, which also is one of the profile fields of the University of Freiburg.

If this position would fit your interest, please send your application as soon as possible via email (PDF, max. 5 MB) to maria.asplund@imtek.uni-freiburg.de or via post:

Dr. Maria Asplund.
Department of Microsystems Engineering - IMTEK
Albert-Ludwigs Universität Freiburg
Georges-Köhler-Allee 102
79110 Freiburg

All questions regarding the position can also be sent to the e-mail above. In your application please include the following:

- Your CV
- Copy of degree-certificates
- A motivation letter – describing briefly why you think this PhD position would fit exactly to you.