

## Postdoc/PhD Student Position in Computational Neuroscience

### Job description

We look for a talented researcher with a passion for computational neuroscience and brain stimulation. The goal of this project, funded by the European Research Council (ERC), is the understanding of the working mechanism of deep brain stimulation (DBS).

The successful applicant will join the group Biomedical Signals and Systems at the University of Twente (Netherlands), including a tight collaboration with the University Medical Center Hamburg Eppendorf (Germany). A further collaboration with the MRC Brain Network Dynamics Unit, University of Oxford (UK), is possible.

### About the project

Deep brain stimulation (DBS) is a surgical treatment for Parkinson's disease and some other neurological disorders. Despite its clinical success, it is not entirely clear how DBS acts on the brain and relieves motor symptoms. In the ERC project DECODE (Desynchronizing weak cortical fields during deep brain stimulation), we investigate the effects of weak electric fields remote from the stimulation site on network synchronization. The main focus of this position is physiology-based computational neural network modeling. A minor part will be on the experimental validation of the models in healthy participants.

For more information you are welcome to contact Bettina Schwab ([b.c.schwab@utwente.nl](mailto:b.c.schwab@utwente.nl)).

### Your profile

We look for a highly motivated, enthusiastic researcher who is driven by curiosity and has:

- or will shortly acquire, an PhD in (applied) physics, biomedical engineering, computational neuroscience, or a related topic [MSc for PhD position].
- experience with computational modeling of biological neural networks.
- affinity to the clinical application of neurotechnology.
- proficiency in English.

The following experimental skills are not required but can be of advantage:

- experience with electroencephalography (EEG).
- experience with transcranial alternating current stimulation (tACS).

### Our offer

We offer an exciting temporary research position in a dynamic and international environment.

- A fulltime position as postdoctoral fellow for 3 years [4 years contract for PhD position].
- Full status as an employee at the UT, including pension and health care benefits.
- Training in computational and experimental methods.
- Working in a committed, interdisciplinary team.
- A high degree of responsibility and independence [for PhD position: an increasing degree of responsibility and independence].

### Information and application

Are you interested to be part of our team? Please send your application to [b.c.schwab@utwente.nl](mailto:b.c.schwab@utwente.nl), including:

- a letter of motivation, emphasizing your specific interest, qualifications and motivation to apply for this position,
- a detailed CV including a list of publications,
- PhD certificate [MSc certificate],
- an academic transcript of BSc and MSc education,
- contact information of two referees.

The start date is flexible in 2024. We will continuously review applications.