

Postdoctoral Researcher in Sensorineural Feedback (1,0 fte)

Background

The STW-funded NeuroCIMT program (<http://www.neurocimt.nl>) creates an enabling technology platform for systems that integrate precision diagnostics with individualized treatment in patients with neurological diseases and sensory impairments. Eight interrelated projects add to the core of NeuroCIMT in developing advanced neurostimulation technology (cochlear implants, pain diagnosis and motor relearning), real-time biofeedback technology (for reducing spasticity, controlling blood pressure, and improving daily activities), and assistive devices (to compensate for spasticity and contractures).

Responsibilities

The Department of Biophysics at the Science Faculty of Radboud University Nijmegen is hiring a postdoc for 35 months, starting early 2017, to perform research within the national STW-Perspective program NeuroCIMT. You will work in close collaboration with NeuroCIMT's PhD student, with clinical researchers from the Otolaryngology department at RadboudUMC, and you will be our prime contact with the industrial partners within the project. Your work involves the development, implementation, and testing of an automatized neuro-feedback system for hearing-impaired listeners ('OtoControl'), which aims to optimize their hearing devices and auditory performance. Your duties will be diverse, ranging from experiment design to advanced EEG analysis in patients, collaborate with engineers and staff of our industrial partner, publishing scientific papers, and presenting your work at international conferences.

Work environment

The research activities within the Biophysics department (<http://www.ru.nl/mbphysics/>), led by Prof. John van Opstal, focus on a range of topics spanning neuro-computational modeling, visual, vestibular and auditory perception, and eye-head gaze-orienting in healthy subjects and patients. The group of John van Opstal is internationally recognized as one of the world leaders in sensorimotor psychophysics. The theoretical research in the department (prof. H.J. Kappen) focuses on deep learning/reinforcement learning in artificial neural networks, on fundamental theory and applications of Machine Learning techniques, and on Optimal Control for robotic systems.

All research of the Biophysics department is embedded in both, the Science Faculty of the Radboud University and the Donders Institute for Brain, Cognition, and Behaviour (DI). The Radboud University (RUN, <http://www.ru.nl/en/>) is a broad, international oriented university, offering education and performing research in the natural sciences, medical sciences and humanities at an internationally acknowledged level. Research at the RUN is bundled across 14 interdisciplinary Institutes. The Donders Institute is a world-class interfaculty research centre, and houses more than 800 researchers devoted to understanding the mechanistic underpinnings of the human mind (<http://www.ru.nl/donders/>). In 2013, the DI was assessed by an international evaluation committee as excellent and recognized as a 'very stimulating environment for top researchers, as well as for young talent'.

What we expect from you

- You have a PhD degree related to the field of (bio)physics, electrical or biomedical engineering, neuroinformatics, or an equivalent quantitative background, with ample experience in signal analysis, systems identification, or EEG analysis.
- You are self-motivated, pro-active, and able to operate independently in a multidisciplinary team.
- You have strong communicative skills, and a fluent command of English.

What we have to offer

- employment: 1,0 fte;
- a maximum gross monthly salary of € 4,028 based on a 38-hour working week (salary scale 10);
- in addition to the salary: an 8% holiday allowance and an 8.3% end-of-year bonus;
- salary will depend on training and work experience;
- duration of the contract: initially 12 months, renewable for another 23 months
- you will be classified as a Postdoctoral Researcher 4 in the Dutch university job-ranking system (UFO).

Would you like to know more?

For more information about this postdoctoral position you may contact Prof. dr. A.J. van Opstal,
T: + 31 (0)24 361 4251 E: j.vanopstal@donders.ru.nl W: www.mbfys.ru.nl/~johnvo .

To apply, please e-mail a detailed CV along with your application letter, and at least 3 references to: j.vanopstal@donders.ru.nl before February 1, 2017. When applying for this position, please refer to “vacancy NeuroCIMT/OtoControl-62002451”.