

2 year Post Doctoral position with the Neuromuscular Systems Research Lab at University College Dublin

Position: Postdoc

Job Location: Ireland

Job Description:

Applications are invited for a 2 year post-doctoral position with the Neuromuscular Systems Research Lab at University College Dublin. The project represents an exciting opportunity to work on a multidisciplinary research project funded by Research Ireland. This project aims to develop a multiscale model of the neuromuscular system to design and test closed-loop control strategies for deep brain stimulation (DBS) for Parkinson's disease. A highly motivated post-doctoral research fellow is sought to design multivariable control policies for closed-loop control of DBS in Parkinsons' disease. This work will form part of a wider multidisciplinary project incorporating clinical and preclinical studies. The project would suit candidates with expertise in neuromodulation, computational neuroscience, control theory and/or physiology of the corticospinal and basal ganglia systems.

The Neuromuscular Systems Lab is a multidisciplinary research group in the School of Electrical and Electronic Engineering at University College Dublin. Our research involves applying engineering principles, in particular mathematical modelling, signal analysis and experimentation, to understand how the nervous system controls muscle in healthy and diseased states. Through this research we aim to improve our understanding of the neuromuscular system to address fundamental questions in the control of human movement and to develop improved therapeutic and rehabilitation strategies.

Suitable candidates should have :

- PhD in Biomedical Engineering, Electrical/Electronic Engineering, Neuroscience or a related discipline
- Experience in the field of computational neuroscience, control theory or neuromodulation
- Excellent programming and computational skills
- A demonstrated commitment to research and publications
- An understanding of the operational requirements for a successful research project
- Evidence of research activity (publications, conference presentations, awards) and future scholarly output (working papers, research proposals, and ability to outline a research project.
- Excellent communication skills (Oral, Written , Presentation etc).

Further details along with application forms may be found at <https://www.ucd.ie/workatucd/jobs/> (reference **018180**)