

Neuromuscular Systems Lab

**School of Electrical & Electronic Engineering**

**University College Dublin**

Post-doctoral Research Fellow: Computational Modelling of Transcranial Ultrasound Stimulation

Description

Applications are invited for a full-time post-doctoral position with the Neuromuscular Systems Research Lab at University College Dublin.

The project represents an exciting opportunity for enthusiastic candidates to work on to work on a collaborative project within the Science Foundation Ireland CURAM Centre for Research in Medical Devices. In collaboration with researchers at the CURAM this multidisciplinary project aims to develop computational models of transcranial ultrasound stimulation of neurons within the deep structures of the brain with the overall objective of developing new neuromodulation approaches for the treatment of neurodegenerative diseases, including Parkinson’s disease.

A highly motivated post-doctoral research fellow is sought to develop computational models of ultrasound neural stimulation.

The ideal candidate will have expertise in the computational modelling of neural activity and neural stimulation and/or ultrasound propagation in biological tissues.

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.

Who Should Apply

Applicants should hold a PhD in Biomedical Engineering, Electrical/Electronic Engineering or a related discipline. Prior experience in computational modelling of neural stimulation is preferred. Excellent communication, analytical and programming skills are required. Suitable candidates should be able to work independently and as a part of team.

How to Apply

Full details of the position and the application process are available through the UCD Human Resources website (<https://www.ucd.ie/workatucd/jobs/>) job ref **014135 ‘**016639 - UCD Post-doctoral Research Fellow Level 1, UCD School of Electrical and Electronic Engineering.’Informal enquiries may be made to Professor Madeleine Lowery (madeleine.lowery@ucd.ie).