Postdoctoral Opening

Department of Electrical and Systems Engineering
Washington University in St. Louis (St. Louis, MO, USA)

Postdoctoral Opening: Control and Optimization of Neural Activity

Postdoctoral positions are available at Washington University in St. Louis in the area of control and optimization with applications in brain dynamics. This position is a part of an NIH BRAIN initiative-funded project on stimulation protocols for neuron-level control.

Current neurostimulation technologies provide substantial capability to manipulate the activity in neuronal networks. However, several key challenges remain, including handling many degrees of freedom with (usually) only a few stimulating actuators. This project will involve the development and implementation of optimal control methods for the precise manipulation of neuronal activity at the level of neurons and networks thereof. Candidates should have a strong background in the general areas of systems theory, control engineering, machine learning and/or optimization. Prior experience in neuroscience is not needed, but a general interest/curiosity about brain dynamics is a plus!

This project will be jointly supervised by Profs. ShiNung Ching and Jr-Shin Li in the Department of Electrical and Systems Engineering at Washington University. Interested applicants should send a CV and brief description of interests and goals to (shinung@wustl.edu) and (jsli@wustl.edu). Applications will be evaluated as soon as they are received, until the positions are filled.