



CENTRE FOR NEUROSCIENCE

INDIAN INSTITUTE OF SCIENCE

BANGALORE – 12

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Project Title: ***Inferring neural correlates of motor planning and control from muscle recruitment activity.***

Project Description: The project involves using high-density surface EMG recordings during voluntary reaching movements to probe and test the relationship between the patterns of motor unit recruitment and movement initiation and control using behavioral and neurostimulation approaches. Besides giving insight into how information processed in cortical areas is read out by muscles during voluntary movements, we also hope to delineate the neural basis of flexible sensorimotor gating. We also hope that such a line of research could be the forerunner to developing an assistive non-invasive brain-machine interface that decodes intentional signals from the activity of motor units before movement generation.

Position: Project Associate I

Salary: 25,000/- +27% HRA per month

Starting date: April 1st, 2024

Essential Qualifications: Master's degree in any branch of science or Bachelors (B.Tech) in Engineering or Technology

Experience/Skills:

work experience with Biosignals (EEG, EMG) processing

good ability to program with Matlab.

attitude to work in a group with other students/personnel in the team.

good learning abilities, exhibit interest in being part of a research activity, be inquisitive and deal with uncertainties, and exhibit flexibility.

good verbal and written communication skills.

Contact: Interested candidates can send their detailed CV and any recommendations/certificates to

Prof. Aditya Murthy (e-mail: adi@iisc.ac.in)

with the subject line "Project Associate I Resume"