Date: July 27, 2016

Advertisement for Project Assistant Position

Applications are invited from motivated and eligible candidates for the position of Project Assistant in a DBT funded Research Project titled "***Role of default mode brain network in normal Cognitive functions***".

Objectives of the Project

We investigate how the degree of intrinsic activity (temporal change), functional connectivity (change spatial map) in the Brain networks (measured with EEG and fMRI) are sensitive to disruption via cortical short-range as well long-range inhibition. This multimodal approach using non-invasive human neuroimaging along with biophysically detailed large-scale computational model will establish links between neurotransmitter imbalance in the organization of large-scale anti-correlated neural systems, cognition, and symptoms (broadly speaking cognitive impairment) associated with neurocognitive disorders in humans. We plan to optimize our model parameters with measurements from Magnetic Resonance Spectroscopy (MRS).

Eligibility

Essential Qualification:

(i) Bachelor's degree in Engineering/Technology/Medicine or equivalent

OR

(ii) Post-Graduate degree in any branch of Science such as Physics/ Mathematics/ Cognitive Science /Biology/Computer Science/ Psychology/ or equivalent

Desirable:

Candidates having exposure to **statistical analysis, programming and exposure to experimental design and data acquisition** are encouraged to apply.

Familiarity with modern computational techniques and working knowledge in programming in Matlab / C /C++ is must.

Stipend

Remuneration will commensurate with employee's education and experience.

Accomodation:

Project Assistants may be provided with suitable accommodation in lieu of H.R.A. on sharing basis, subject to availability.

Duration

Initial appointment will be for one year, which maybe extended based on performance and availability of fund.

How to Apply

Interested candidates are requested to submit a detailed CV to Dr. Dipanjan Roy, Center of Behavioural and Cognitive Sciences, University of Allahabad, via e-mail: dipanjan@cbcs.ac.in latest by August 20, 2016. Complete information with regard to respective degree: year of passing, discipline, score, marks, should be mentioned in the CV. Incomplete applications will be rejected. Selected candidates will be intimated by e-mail. No TA/DA will be paid for appearing in the interview. Interview date will be intimated a month in advance to the shortlisted candidates. For additional information candidates may send emails to dipanjan@cbcs.ac.in

Date: July 27, 2016

Advertisement for JRF Position

Applications are invited from motivated and eligible candidates for the position of Junior Research Fellow (JRF) in a DBT funded Research Project titled "***Role of default mode brain network in normal Cognitive functions*** ".

Objectives of the Project

First, we plan to characterize intrinsic resting state Blood Oxygen level Hemodynamic response (BOLD) dynamics, functional connectivity between multiple brain areas assessed by fMRI across healthy subjects. We expect increased functional connectivity in the DMN paralleled by the decrease in Frontal Parietal network (FPN) implicated in working memory, planning, decision making. Second, we model mechanistically using a large-scale biophysically motivated brain network model composed of several brain areas to generate synthetic BOLD resting state dynamics. Third, we investigate how the degree of intrinsic BOLD activity (temporal change), functional connectivity (change spatial map) in the DMN and FPN networks are sensitive to disruption via biophysically altering the cortical short-range as well long-range inhibition. This multimodal approach using non-invasive human neuroimaging along with biophysically detailed large-scale computational model will establish links between neurotransmitter imbalance in the organization of large-scale anti-correlated neural systems, cognition, and symptoms (broadly speaking cognitive impairment) associated with neurocognitive disorders in humans.

Eligibility

Essential Qualification:

(i) M.Tech./M.E. degree in Computer Science and Engineering/Electrical and Electronics Engineering/Instrumentation or in equivalent streams

OR

(ii) B.Tech./B.E. degree in Computer Science and Engineering/Electrical and Electronics Engineering/Instrumentation or in equivalent streams preferably with a GATE score

OR

(iii) Post-Graduate in Physics/ Mathematics/ Cognitive Science /Biology/Computer Science/ Psychology/ preferably with NET qualification

Desirable:

Candidates having exposure to **image processing, signal processing, statistical analysis, programming and exposure to machine learning** are particularly encouraged to apply.

Stipend

The fellowship for JRF will be @ Rs. 25,000- per month + HRA as per DBT guidelines i.e. those with NET qualification. The fellowship for Non-NET candidates will be: JRF@ Rs. 12,000/, respectively. HRA will be paid as per Government of India norms.

Duration

Initial appointment will be for one year, which is extendable up to 3 years solely based on performance.

How to Apply

Interested candidates are requested to submit a detailed CV to Dr. Dipanjan Roy, Center of Behavioural and Cognitive Sciences, University of Allahabad, via e-mail: dipanjan@cbcs.ac.in latest by August 20, 2016. Complete information with regard to GATE, NET score such as: year of passing, discipline, score, marks, All India Rank and number of candidates appeared should be mentioned in the CV. Incomplete applications will be rejected. Selected candidates will be intimated by e- mail. No TA/DA will be paid for appearing in the interview. Interview date will be intimated a month in advance to the shortlisted candidates. For additional information candidates may send emails to dipanjan@cbcs.ac.in