



## Indian Institute of Technology Indore

Simrol Campus: Khandwa Road, Simrol Indore 453552

Ref.: IITI/Maths/NSM/2022

Dated: 02.08.2022

### Advertisement for Senior Research Fellow (SRF) position under NSM project

IIT Indore invites applications from highly motivated, sincere, hardworking, and research-oriented candidates for the position of **Senior Research Fellow (SRF)** in the National Supercomputing Mission (NSM) funded research project (DST/NSM/R&D\_HPC\_Applications/2021/03.29) entitled “Diagnosis of Alzheimer’s disease using brain imaging data” of **Dr. M. Tanveer** (PI of the project). Candidates are advised to visit the profile of **Dr. M. Tanveer** (<http://iiti.ac.in/people/~mtanveer>).

#### **Project Details:**

The project is aimed to develop novel shallow/deep learning techniques for the diagnosis of Alzheimer’s disease. One of the primary objectives is to use standard feature extraction software to process neuroimaging data. Since the magnetic resonance imaging data is having many features, i.e., a million voxels and thus we need to utilize the national supercomputing facilities for the preprocessing of data. Another task of this project is to use efficient deep learning models for the classification and regression of brain imaging data. The deep learning networks such as convolutional neural networks have more than a million parameters. Therefore, we will deploy these networks on the high computation facilities. This will improve the research in the areas of Alzheimer’s disease as well as shallow/deep learning. Moreover, we will use the high computation facility for comparison of our proposed techniques with various state of the art deep learning approaches.

**Salary:** Consolidated emoluments – INR 35000 per month + House Rent Allowance (as per DST norms)

**Tenure of the appointment:** Initially for six months, extendable for further period subject to satisfactory performance of the incumbent and continuation of the project.

**Essential Qualification:** (a) ME/MTech or equivalent degree in Engineering/technology. Age limit: Maximum 32 years, or (b) M.Sc. in Mathematics/Computer Science or equivalent plus two years research experience. Age limit: Maximum 32 years.

**Desirable Qualification:** Candidates having high quality journal/conference papers in the areas of machine learning, deep learning and biomedical applications, knowledge of programming (MATLAB, R, Python) is encouraged to apply.

**How to Apply:** Interested candidates are requested to send a detailed CV with complete list of publications latest by **August 12, 2022**, to **Dr. M. Tanveer** ([mtanveer@iiti.ac.in](mailto:mtanveer@iiti.ac.in)) with the subject line “Application for Senior Research Fellow position”. Complete information with respect to such as year of passing, experience, marks etc. should be mentioned in the CV. Incomplete applications will be rejected. Only shortlisted candidates will be intimated by email for an online interview.

Note: The Institute reserves the right to fill or not to fill the post advertised.