



Recruitment of Junior Research Fellow in the Department of Computer Science and Engineering

Applications are invited for the post of Junior Research Fellow to work on a project titled “Development of Lightweight Android Mobile Software Powered by Deep Learning for Identification of Plant Leaf Disease” sponsored by the Department of Science and Technology, India under the Technology Development Program, for two years.

Objectives of the Project:

- Developing algorithms for disease modeling to artificially synthesize a particular disease (or multiple diseases) on a leaf image, thereby enhancing the training data set and improving plant leaf disease detection accuracy further.
- Optimizing the Deep Learning models suitably by reducing the network parameters to make the software lightweight and allowing users to download and execute it even on devices with less computational power.
- Implementing the algorithms/models developed through the project on Android platform and distributing this software as an Android-based smartphone application via API(s).
- Creation of server-side components on private/public cloud infrastructure with web services to connect/execute image processing deep learning algorithms along with the transactional database to store relevant data on users, images, etc., for future use like training advanced and updated algorithms.
- Creation of a mobile application through which users can capture, upload, and view or receive analysis and other relevant information on plant diseases and possible solutions for remedy.

Details of the Position:

- Name of Position: Junior Research Fellow
- Number of Positions: 01
- Last Date of Application: June 30, 2023
- Tenure: Two Years (initial appointment will be for one year which may be extended based on performance)
- Emoluments: INR 31,000/- + 18% HRA per month
- Qualifications:
 - M.Tech./M.E. degree in Computer Technology/ Information Technology/ Electronics and Communication Engineering/ Mathematics and Computing/ All related subjects of Computer Engineering with minimum 60% marks (or, 6.0 CPI on a 10-point scale).
 - or
 - B.Tech./B.E. degree in Computer Technology/ Information Technology/ Electronics and Communication Engineering/ Mathematics and Computing/ All related subjects of Computer Engineering with minimum 75% marks (or, 7.5 CPI on a 10-point scale).
 - The candidate must qualify for GATE or National Eligibility Tests such as CSIR-UGC NET including lectureship (Assistant Professor).
- Desirable Skills/Experiences:
 - Hands-on experience with implementing (training and testing) Deep Learning models
 - Good communication skills in English
 - Android application development and a basic idea of wireless communication establishment
- Upper Age Limit: 28 Years. Age relaxation is applicable as per Government of India (GoI) norms

Application Procedure:

Make a single PDF file with the application form (given on the next page) along with self-attested copies of all relevant qualification certificates, mark sheets, experience certificates, age-proof, and other relevant documents, and email it to pratik.cse@iitbhu.ac.in with subject line **Application for JRF 2023**. Document verification with the original will be done at the time of the interview.

General Terms and Conditions:

- The PI has the discretion to restrict the number of candidates to be called for interview to a reasonable limit by qualifications and/or experience higher than the minimum prescribed in the advertisement.
- Only shortlisted candidates will be communicated through email to appear for an interview.
- No TA/DA will be paid for attending the interview.
- The position is purely temporary and coterminous with the project.
- Refer to <https://www.iitbhu.ac.in/positions> for further updates and details, if any.

Contact Details:

Dr. Pratik Chattopadhyay (Assistant Professor)
Pattern Recognition Laboratory
Department of Computer Science and Engineering
Indian Institute of Technology (Banaras Hindu University) Varanasi 221005, U.P., India
Email ID: pratik.cse@iitbhu.ac.in

APPLICATION FOR JRF POSITION IN THE PROJECT

DEVELOPMENT OF LIGHTWEIGHT ANDROID MOBILE SOFTWARE POWERED BY DEEP LEARNING FOR IDENTIFICATION OF PLANT LEAF DISEASE

Please fill up all the fields of the Application Form properly. Otherwise, your application will not be considered. Email the form to pratik.cse@iitbhu.ac.in along with self-attested copies of all mark sheets and certificates.

1. FULL NAME:
2. DATE OF BIRTH:
3. SEX:
4. CATEGORY (GEN/SC/ST/OBC/EWS):
5. MARITAL STATUS:
6. NATIONALITY:
7. PHYSICALLY HANDICAPPED (YES/NO):
8. NAMES OF PARENTS/GUARDIANS:
9. ADDRESS OF CORRESPONDENCE (WITH CONTACT NO.):
10. EMAIL ADDRESS:
11. GATE SCORE WITH YEAR:
12. ACADEMIC BACKGROUND (STARTING FROM LATEST DEGREE UPTO SECONDARY):

PUT YOUR PHOTO
WITH CLEAR
BACKGROUND

SL. NO.	QUALIFICATION	UNIVERSITY/ INSTITUTE/ BOARD	YEAR OF PASSING	SUBJECTS	PERCENT AGE/CGP A	DIVISION
1.						
2.						
3.						
4.						

13. EXPERIENCE OF PROFESSIONAL WORK, IF ANY:

SL. NO.	ORGANIZATION	DESIGNATION	DATE FROM	DATE TO
1.				

APPLICATION FOR JRF POSITION IN THE PROJECT

DEVELOPMENT OF LIGHTWEIGHT ANDROID MOBILE SOFTWARE POWERED BY DEEP LEARNING FOR IDENTIFICATION OF PLANT LEAF DISEASE

2.				
3.				
4.				
5.				

14. NAME, EMAIL ADDRESSES, AND CONTACT DETAILS OF TWO REFEREES:

REFEREE ID.	REFEREE NAME	DESIGNATION	EMAIL ADDRESS	CONTACT NUMBER
1.				
2.				

DECLARATION:

I hereby declare that I have carefully read and understood the instructions and particulars of this application and that all entries in this form as well as in the attached sheets are true to the best of my knowledge

DATE

SIGNATURE

PLACE