INDIAN INSTITUTE OF TECHNOLOGY, ROORKEE
Department of Civil Engineering

Dated: 10.01.2022

ADVERTISEMENT TO FILL UP PROJECT POSITIONS*

Applications are invited from Indian nationals only for project position(s) as per the details given below for the research project(s) under the Principal investigator (Name: **Dr. Alok Bhardwaj**), Department of Civil Engineering, Indian Institute of Technology, Roorkee.

1. Title of project: **Rapid Estimation of Flood Extents using Synthetic Aperture Radar and Deep Learning**
2. Sponsor of the project: **SERB, New Delhi**
3. Project position(s) and number: **Junior Research Fellow** (JRF), **01** (One) position
4. Qualifications: B.Tech. in Civil Engineering and M.Tech. degree in Civil Engineering with specialization preferably in **Geomatics Engineering or Remote Sensing. Candidates awaiting results for the 4th semester of Master's program are also eligible to apply**. Candidates must have **qualified GATE exam**. The candidates with exposure to Synthetic Aperture Radar analysis, deep learning modeling, good programming skills in Python will be given preference.
5. Emoluments: Rs. **31,000/-** per month + **Rs. 2480/- HRA** per month
6. Duration: **1.5 to 2 years**
7. Job description: The project will involve selection of high-resolution optical images and generation of SAR time-series for selected flood events, generation of labels from selected optical images using digital image processing and GIS, deep learning modelling with input as time-series of SAR intensity and coherence and output as labels. The candidate will also work to optimize the amount of new training labels that will be required for continuous improvement of the trained deep learning model. The candidate must carry out the research work, planning and execution of project related activities, prepare report and presentations, and manuscripts for publications in peer reviewed SCI and SCOPUS indexed journals.
8. Candidates before appearing for the interview shall ensure that they are eligible for the position they intend to apply.
9. Candidates desiring to appear for the Interview should submit their applications with the following documents to following order.
   - Application with detailed CV including chronological discipline of degree/certificates obtained.
   - Copy of **GATE Score Card** and Attested copies of degree/certificate, mark sheets (10th, 12th, B.Tech. Semester wise, M.Tech. Semester wise) and relevant experience certificate (research and industrial field).
10. Candidate shall bring along with them the original degree(s)/certificate(s) and experience certificate(s) at the time of online interview for verification.
11. Preference will be given to SC/ST candidates on equal qualifications and experience.
12. Please note that no TA/DA is admissible for attending the interview.

Note: The selected candidate may get an opportunity for PhD admission. Once the project is completed, the candidate may be considered for Institute assistantship as per Institute policy.
The last date for application to be submitted to office of Principal Investigator is January 25, by 5 PM.
(*not applicable for walk in interview*)

The interview will be held on 31st January 2022 at 10:00AM onwards online through Webex. Meeting link will be communicated to the candidates fulfilling the qualification norms.

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(Alok Bhardwaj)
Name and signature of Principal Investigator
*To be uploaded on IIT Roorkee website and copy may be sent to appropriate addresses by PI for wider circulation.

Approved

Manish
12 Jan 2022
(Dean SRIC)