



Research Positions in the area of Environmental Science

**National Institute of Advanced Studies, Bangalore**

National Institute of Advanced Studies (NIAS) was conceived and founded in 1988 by the late Mr. J. R. D. Tata, who sought to create an institution to conduct advanced multidisciplinary research. Housed in a picturesque green campus in Bangalore the Institute serves as a forum to bring together individuals from diverse intellectual backgrounds, in the natural and life sciences, humanities, social sciences, and conflict and security studies. The philosophy underlying NIAS is given shape by its multidisciplinary research teams. The Institute is unique in its integrated approach to the study of intersections between science and technology, philosophy, social issues and leadership. The objective is to nurture a broad base of scholars, managers and leaders who would respond to the complex challenges that face contemporary India and global society, with insight, sensitivity, confidence and dedication. For more details: [www.nias.res.in](http://www.nias.res.in)

About the Programme/Project:

**Terrestrial Carbon Cycle of India :** The project aims at addressing major gaps in quantification and reduction in uncertainty of various carbon pools and fluxes determining the natural and anthropogenically altered terrestrial carbon cycle of India. It would focus on temporally varying vegetation and soil pools in GIS framework and also the major fluxes between atmosphere and terrestrial pools for over a two-century (1820-2020) period with enhanced spatial resolution in the satellite remote sensing era (1980-2020). The project will integrate satellite derived bio-geophysical data sets and land cover dynamics with historical maps, Government statistics, Census and economic surveys, thematic mapping for natural resource assessment and relevant historical sources surveys. It aims to link temporal carbon pools to carbon fluxes among vegetation-soil-atmosphere continuum using models of varying complexity. The results would help in describing the carbon source-sink balance over the study period and also contribute towards various land-based policy options for enhancing carbon sequestration.

Title of Position/s:

**Post-doctoral Associate (PDA)**

Job description (what is expected) Candidate would implement a spatial modelling framework for terrestrial carbon dynamics, using a combination of biosphere models, forest growth models, vegetation productivity models, soil C dynamics and biosphere-atmosphere transport models. Candidate would run these models with published spatial data bases, geophysical parameters derived from remote sensing, and new data sets generated in the project for quantification of terrestrial carbon pools and fluxes.

Qualifications and Experiences:

- i. Degrees : PhD
- ii. Research experiences : Published work on Terrestrial Carbon Cycle Models/ Remote Sensing for forest/crop biomass and productivity
- iii. Previous work experience : Quantification of carbon cycle pools and fluxes, remote sensing, GIS, Forestry

**Project Associate/Junior Research Fellow:**

Job description (what is expected) Candidate would create spatial data bases for study of terrestrial carbon cycle and be well

**Qualifications and Experiences:**

- i. Degrees : Masters in Environmental Science/ Forestry/ Botany/ Agriculture/ Remote Sensing/ Geoinformatics or equivalent. Candidates with valid NET-JRF or GATE score will be considered for the position of JRF.
- ii. Research experiences : RS & GIS studies on vegetation/ forest, biomass mapping and quantitative analysis of vegetation biophysical parameters
- iii. Previous work experience : Open source RS & GIS packages, Statistical analysis with R or S, Python

**Mode of Application:**

Interested applicants should submit their curriculum vitae electronically along with the following documents:-

1. Covering letter
2. Statement of Purpose
3. Copy of degree certificate
4. PDF copies of minimally 2 publications/writing samples- **applicable for the post of PDA only**
5. Name, address and email ID of four referees – **applicable for the post of PDA only**

The last date for receiving applications is June 25, 2021. Short-listed candidates will be invited to NIAS for a presentation followed by an interview (These may be conducted online due to current pandemic).

Salary will be commensurate with qualifications and experience and comparable to other premier institutions in the country.

**The applications should be addressed to:**

Head-Administration  
National Institute of Advanced Studies  
Indian Institute of Science Campus  
Bangalore-560, 012, India  
E-mail: admin@nias.res.in