



**An Excellent Opportunity to
PURSUE EXCELLENCE WITH RELEVANCE
National Institute of Advanced Studies, Bengaluru**

Project-funded Research Fellowships for PhD Students, Research Associates, and Post-Doctoral Fellows in the Energy and Environment Research Program

The National Institute of Advanced Studies (NIAS), a visionary initiative of J R D Tata, has a mandate to create leaders of substance and credibility in a variety of domains in India, and to carry out in-depth, policy relevant research from a multi-disciplinary perspective, drawing on a wide spectrum of disciplines in the humanities, social sciences, and natural sciences. NIAS provides a congenial atmosphere and institutional support for faculty and scholars to pursue their research and career goals, and expects them to produce significant outcomes in line with the institution's mandate. Please visit our website (www.nias.res.in) for a comprehensive perspective.

NIAS is recognized as a center for research by the Government of India (GOI) and many universities. Students work at NIAS for their PhD while they register with Manipal University or the University of Mysore. The rules and regulations of these universities are available on their websites. We are seeking capable and enthusiastic Researchers/PhD students interested to conduct multi-disciplinary research on GOI- funded, multi-year projects in the Energy and Environment Research Program (“Program”) at NIAS.

The Program seeks to bring in the much-needed integration to Energy, Environment, Natural Resources, and Climate Change studies at a time when India’s Power sector is undergoing a multi-faceted transition in terms of more stringent environmental standards while faced with a growing demand due to the aspirations of Indians for a better standard of living, and the projected demand of industries as per the “Make in India” Program. India’s current position is unique in this respect since the Power sector must meet all these challenges while lowering the tariffs to enhance affordability without unduly increasing the subsidy burden of the Utilities.

Coal forms the bulwark of India’s electricity sector, producing 75% of the electrical energy generated in India today, of which 85% is based only on low-cost Indian coal. In this context, the overall scope of ongoing funded projects in the Program is to explore environmental impacts caused by different aspects of mining and power projects, and to recommend sustainable pathways for affordable energy supply to Indians while ensuring that natural resource and power projects are designed and operated as self-sustaining systems in the long run. In this context, the Program has already secured a 3-year GOI grant for a specific project (with the scope for potential extension after assessment of progress achieved), and is poised to secure a 5-year grant from GOI to conduct multi-disciplinary research on a series of inter-linked projects. The key objectives of the projects funded (or to be funded) by these two GOI grants are as follows:

- Assess the effectiveness of the current technologies, practices, and policies related to opencast coal mining, reclamation, and restoration in India, and benchmark them with international technologies and best practices;
- Assess the institutional gaps in meeting the goal of creating a *self-sustained ecosystem* (post mine closure) in open cast coal mines, and recommend a suitable regulatory mechanism for opencast coal mining considering, social and environmental impacts of coal mining;
- Recommend, suitable technologies, operating practices, and policies with the overall objective of ensuring that open cast coal mines form part of self-sustaining ecological system in the long run.
- Assess the social, environmental and climate impact of select coal mining and/or power plant projects at the local and regional levels and examine means to mitigate the same;
- Develop recommendations for policy interventions at the State/Central level to meet India's growing needs for energy and natural resources while mitigating the environmental impact of natural resource and energy projects in India at optimal cost.

NIAS is looking for suitable **PhD students, Junior/Senior Research Fellows, and Post-Doctoral Fellows** to develop the aforesaid objectives into inter-linked but self-contained projects through both field and analytical studies which will form the basis for policy recommendations after incorporating the views of different key stakeholders.

ELIGIBILITY

PhD students and Junior/Senior Research Fellows:

A first-class Master's degree in Geosciences/Earth Sciences/Geo-informatics/Environmental Engineering/Materials/Mining Engineering/Power Engineering/Energy or Development Studies/Public Policy from a reputed Institution/University with a minimum of 60% marks or CGPA of 7.0 (10-point scale) or CGPA of 3.5 (5-point scale) at the Bachelor's & Master's level.

Candidates with scores from a National level examination like, GATE/CSIR-UGC NET for JRF/ INSPIRE-Ph.D., in areas relevant to the above fields, particularly with relevant practical experience related to Mining/Coal-power plants/Climate modeling will be given preference.

Post-Doctoral Fellows

A Ph.D. with First class or equivalent grade in the preceding degree in Geosciences/Earth Sciences/ Environmental Engineering/Mining Engineering/Power Engineering/Inter-disciplinary studies related to the Mining/Power/Natural Resources/Earth Sciences from a reputed University/Institution in India or abroad, with a consistently good academic record.

FELLOWSHIP

Selected candidates will be entitled to fellowships (on a yearly renewable basis), which will be available for a period of three years initially (for PhD Students and JRF/SRFs) and for two years (for Post-Doctoral Research Associates).

In case of PhD students and Junior/Senior Research Fellows, the fellowship amount is currently fixed at Rs. 25,000- per month for the first two years and Rs. 28,000/- per month for the third year, with an additional 30% per month as House Rent Allowance. However, there

is a potential for renewal of the fellowship for another two years based on the renewal of the institutional grant and the satisfactory performance of the researcher/student.

In the case of Research Associates (those who do not wish to register for a PhD), the consolidated stipend will vary between Rs. 21,000 and Rs. 25,000 pm, based on their qualifications and experience. However, they will be promoted as Junior Research Fellows with the same emoluments as a JRF once they qualify in the National level examinations listed above.

In the case of Post-Doctoral Fellows, the fellowship will vary between Rs. 36,000 and Rs. 38,000 per month (based on qualifications and experience), with an additional 30% per month as House Rent Allowance, which is comparable to other premier institutions in the country. These fellowships are for a fixed duration of two years only.

Interested applicants should submit their curriculum vitae electronically, including the names and addresses of three referees, two samples of published work and a brief statement of interest explaining why they are interested in joining **the Program**, in a **single PDF document**.

HOW TO APPLY

PhD students

Please download the application form (<http://www.nias.res.in/content/doctoral-programme>) from the NIAS website. The completed and signed application form should be sent along with scanned copies of undergraduate and post-graduate degree certificates and mark sheets. In addition, a resume containing your academic history, skills, published work, and accomplishments should be collated and sent as a single PDF file to: **niasphd@gmail.com**.

The deadline for receiving application with all required documents by email is **April 30, 2017**. A written examination comprising multiple choice type questions in quantitative, logical reasoning, analytical, and vocabulary skills will be conducted to shortlist the candidates for the two interviews, a subject specific interview and a comprehensive interview. For additional information, applicants may contact: **jnsandhya@gmail.com**.

Junior/Senior Research Fellows (other than PhD students) and Post-Doctoral Fellows

Interested applicants should submit their curriculum vitae electronically, including the names and addresses of three referees, two samples of published work and a brief statement of interest explaining why they are interested in joining the Program, in a **single PDF document** to: admin@nias.iisc.ernet.in.

The deadline for applications is **30 April 2017**. Short-listed candidates will be invited to NIAS for a presentation followed by an interview. For additional information, applicants may contact: **happyhippu@gmail.com**.

General

All applicants should clearly state in the subject line of their email: **“Energy & Environment Research Program.”** NIAS will accept only applications submitted by email. **All short-listed candidates called for Written Test and/or Interview will be provided financial assistance (towards travel and accommodation) to attend the same at NIAS.**