National Institute of Advanced Studies, IISc Campus, Bengaluru 560 012

Call for Applications: Project-funded Ph.D. Fellowships and Field Assistants in the Energy and Environment Program

The National Institute of Advanced Studies (NIAS), a visionary initiative of J. R. D. Tata, has a mandate to carry out in-depth, policy relevant research from a multi-disciplinary perspective. The Energy and Environment Program (EEP) at NIAS is seeking capable and enthusiastic Ph.D. students and Field Assistants interested to conduct multi-disciplinary research funded by a 5-year grant from the Ministry of Earth Sciences (MoES) ‘To understand the Interaction between components of Earth and Human Systems at various Spatial and Temporal Scales’. The objectives of this research grant are as follows:

- To study the impact of air quality on health at the local and regional levels, and examine ways and means to mitigate the same;
- To study the spatial-temporal, seasonal and long-term trends in the level of atmospheric pollutants and their inter-linkages;
- To identify pathways of pollutants and relative contribution between local versus distant sources along with its interpretation for select regions;
- To study the microclimate of select metropolitan cities with the goal of assessing relative contribution of different emission sources;
- To make comprehensive assessments of seasonal air pollution scenario to develop strategies, enablers, and action plans to transition to a more environment-friendly and sustainable energy/transportation mix;
- To understand the water-energy-agriculture nexus in select areas where there is competing use of surface water in agriculture and in thermal power plants to provide a basis for cost-benefit analysis of optimization measures for the sharing of water between agriculture and power generation to enhance sustainable operations in both sectors;
- To establish a baseline case for assessing potential improvements in technologies and practices to optimize usage of water in thermal power plants in general, and those located in water-deficit regions in particular;
- To develop policy formulations designed to make energy services accessible, affordable, and sustainable to the households who are unserved and/or under-served;
- To study socio-economic impact of select MoES’s programmes with reference to the SDGs;
- To contribute towards MoES’s Polymetallic Nodules (PMN) Program, esp. with reference to its potential environmental impact.

**Doctoral Fellows**
Master’s degree in Earth Sciences/Agricultural Sciences/Engineering/Sciences/Social Sciences/Geosciences/Geo-informatics/Materials/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 undergraduate and graduate levels.

**Field Assistants**
Master’s degree in Earth Sciences/Agricultural Sciences/Engineering/Sciences/Social Sciences/Geosciences/Geo-informatics/Materials/Public Policy or B.E./B.Tech. 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 undergraduate and graduate levels.

Please see the EEP announcement on the NIAS website [http://www.nias.res.in/sites/default/files/2018-EEP-Project-PhD.pdf](http://www.nias.res.in/sites/default/files/2018-EEP-Project-PhD.pdf) for other details.