

बसु बिज्ञान मन्दिर  
**BOSE INSTITUTE**  
(भारत सरकार के विज्ञान और प्रौद्योगिकी  
मंत्रालय द्वारा वित्तपोषित सोसाइटी)  
(A Society for Scientific Research financed by  
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**ADVT. NO. S/ESS/04/2018-19**

Bose Institute, Kolkata, invites application from the Indian Citizens for one (1) post of **Junior Research Fellow (JRF)** in the **DST (SPLICE-Climate Change Programme)** sponsored project entitled, "Understanding the Role of Local and Transported Biogenic and Anthropogenic Aerosols on Microphysical and Chemical Properties of Low-Level Clouds Over Eastern Himalaya, India" under the guidance of **Dr. Abhijit Chatterjee**, Environmental Science Section. The project is tenable upto 21.03.2021. Details of qualification, fellowship, age etc. are as follows:

**Essential Qualifications** : M.Sc. in Atmospheric Sciences / Environmental Science / Meteorology / Chemistry from a recognised University / Institution with NET \* qualification.

**Desirable Qualifications** : Good knowledge in the field of atmospheric chemistry/physics, air quality, aerosols etc., computer usage and software packages. Special preference will be given to those who have experience in air pollution and air quality monitoring and analytical instruments. The fellow will mainly be engaged in research activities to be carried out under this project at the Darjeeling campus of Bose Institute

**Fellowship** : Rs. 25,000/- p.m. plus admissible HRA except CSIR-UGC NET-LS  
Rs. 12,000/- p.m. plus admissible HRA for CSIR-UGC NET-LS

**Age** : Below 28 years as on the day on which the application is made.  
(relaxable in case of SC/ST/OBC/Women candidates as per rules).

\* As per SERB Office Memorandum No. SB/S9/Z-01/2015 dated 07.01.2015, the following examinations conducted by various Central Government Departments / Agencies are considered as National Eligibility Test (NET).

CSIR – CSIR-UGC National Eligibility Test including LS  
MHRD – Graduate Aptitude Test in Engineering (GATE), Joint Admission Test (JAM),  
Graduate Pharmacy Aptitude Test (GPAT)  
DBT - Biotechnology Eligibility Test & Test conducted in Bioinformatics  
by Bioinformatics National Consortium (BINC)  
DAE – JEST & JGEEBILS, NBHM  
ICMR – JRF Entrance Examination  
ICAR – All India Competitive Examination (AICE)

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**Duration** : Initially for two years as JRF and would be upgraded to SRF based on performance upto the tenure of the project

**Brief description of the project** :

The studies on the role of aerosols on the microphysical properties of clouds are very few in Indian context. As far as Himalaya is concerned, most of the studies on aerosol, cloud and aerosol-cloud interactions were carried out at northern, western and central Himalaya in India, But the question, “how aerosols play role not only in the formation of clouds by modify and regulate the physical characteristics of clouds and hence precipitation” has not been addressed so far over eastern part of Himalaya and remained unexplored. Eastern part of Himalaya is physiographically diverse and ecologically rich in terms of natural and crop-related biodiversity. Biogenic (primary and secondary organic aerosols) aerosols emissions from huge biosphere cover of eastern Himalaya, their potential activation to cloud condensation nuclei (CCN), their role in the modification of cloud micro physical properties and hence the precipitation, though expected, by and large remain and uncharted territory. Moreover, locally generated anthropogenic aerosols from fossil fuel and biomass burning emissions, long range transport of biomass burning as well as other anthropogenic aerosols from western and central Indo-Gangetic Plain (IGP) and Nepal could efficiently increase CCN loading affecting cloud microphysics over eastern Himalaya. These locally generated and transported aerosols cloud efficiently modify the chemical and physical properties of low level clouds as well as their optical and radiative properties. Such studies are of paramount importance having significant implications to the water reservoirs and the regional hydrological cycle where water stress is one of the serious issues over this part of Himalaya at the current scenario, The entire study (monitoring of aerosols, cloud properties etc) would be conducted over the Darjeeling campus of Bose Institute, West Bengal, India.

Interested and eligible candidates may apply on plain paper quoting “Advertisement No.” and “Application for the post of JRF” on the envelop as well as application with complete Bio-data giving e-mail ID / Phone No. and details of qualification i.e. examination passed, year, division, percentage of marks from Secondary onwards with Attested copies of testimonials addressed to the **Sr. Prof. & In-Charge, Registrar’s Office, Bose Institute**, P-1/12, C.I.T. Scheme VII-M, Kankurgachi, Kolkata – 700 054 on or before May 10, 2018.

**Sr. Prof. & In-Charge**  
**Registrar’s Office**