



## भौतिक अनुसंधान प्रयोगशाला, अहमदाबाद

(भारत सरकार, अंतरिक्ष विभाग)

नवरंगपुरा, अहमदाबाद -380009

**Physical Research Laboratory, Ahmedabad**

(Department of Space, Govt. of India)

Navrangpura, Ahmedabad-380009

### PRL JUNIOR RESEARCH FELLOWSHIPS (JRFs) – 2022

Applications for Junior Research Fellowships (JRFs) at Physical Research Laboratory (PRL) are invited from highly motivated and dynamic candidates to pursue research in any of the following science domains:

- 1. Planetary Sciences & Space Exploration:** Studies of surfaces, atmospheres, ionospheres of planets; theoretical modeling and observational studies of physical processes of Mars, Venus, Moon, asteroids; origin and evolution of the solar system objects through laboratory analysis of extraterrestrial material (meteorites and sample returned missions); analysis of data from Indian missions Chandrayaan-1, -2, -3, Mars Orbiter Mission and Aditya-L1; Development of scientific instruments for future planetary missions to Moon, Venus, and Mars; and Studies of planetary geology through the data obtained from space missions.
- 2. Space & Atmospheric Sciences:** Physics of the sun-earth interactions; space weather and its effect on societal applications; atmospheric circulation; aerosols and their impact on Earth's radiation budget; studies of trace gases, volatile organic compounds and their effects on the atmosphere; cloud dynamics; and global warming/climate change. These investigations are enabled by state-of-the-art and in-house built rocket-, balloon-, and ground-based experiments, optical and radio probing techniques, laboratory experiments along with theoretical simulations, numerical modeling, and Artificial Intelligence/Machine Learning techniques. Opportunities also exist for participation in upcoming Indian space missions like Aditya-L1, dual-aeronomy satellite mission DISHA, and missions to Venus and Mars.
- 3. Solar Astrophysics:** Physics of solar oscillations; structure and evolution of sunspots; magnetohydrodynamic processes in the solar atmosphere, coronal heating, solar eruptions; and space weather predictions. These investigations utilize high-resolution multi-wavelength data from both ground and space-based instruments like Multi-Application Solar Telescope (MAST), Chandrayaan-2, Udaipur-CALLISTO solar radio spectrometer, Global Oscillation Network group (GONG) together with numerical simulations. The solar astrophysics group is also involved in the design and development of sophisticated instruments for solar observations and participation in upcoming national projects, like the Aditya-L1 space mission and National Large Solar Telescope (NLST).

Candidates from disciplines of any branch of Physics, Engineering Physics, Space Physics, Atmospheric Sciences, Geology, Geophysics, Remote Sensing are eligible to apply. Candidates must have Bachelor's and Master's degrees in Science or Engineering with at least a first-class (60%) or equivalent grades at both Bachelor's and Master's levels and must have qualified in any national exam conducted by CSIR-UGC-NET, JEST, GATE & UGC-NET (Env. Sc.) with a valid score.

A Candidate must be an Indian citizen and should have studied at recognized Universities/Institutes in India. The upper age limit is 28 years as on 01 July 2022.

More details on the topics of research and web portal for applying online can be accessed from <https://www.prl.res.in/prl-eng/phd>. Apply online during **25.03.2022 to 20.04.2022**. OFFLINE/ONLINE Interviews for the candidates screened-in will be held on **27, 28, 29 April 2022**.

It is the sole responsibility of the candidate to ensure fulfillment of the eligibility criteria as notified. The candidate should fully comply with the procedural requirements and time limits stipulated for submission of the online application. Any deviations from the above would result in the cancellation of candidature, and any representation, whatsoever, on such matters will not be entertained.

DEAN, PRL

