



# राष्ट्रीय विज्ञान शिक्षा एवं अनुसंधान संस्थान भुवनेश्वर

परमाणु ऊर्जा विभाग, भारत सरकार का एक स्वयं शासित संस्थान

(अनुसंधान और विकास अनुभाग)

**NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH BHUBANESWAR**

(An autonomous research institution under Department of Atomic Energy, Govt. of India)

Jatni, Khurda, Odisha - 752050

**Research & Development Section**

**Advertisement No.: NISER / R&D- 263 / EPS2203 / 34 / 2023-24**

**Research opportunity in interdisciplinary Chandrayaan-2 planetary science project**

Indian nationals are invited for a **Junior Research Fellow** position in Chandrayaan-2 science project funded by ISRO/DoS. The work is interdisciplinary in nature- processing & calibration of IIRS spectrometer data, and then analysis to investigate for any mantle exposure in the south pole Aitken basin area and also to investigate the nature of hydration and volatility and their processes on the lunar surface. The overall work includes 3 major steps- (1) **Thermal correction**- Quantifying emissivity considering surface roughness and observation geometry in order to determine actual reflectance, (2) **Photometric correction**- Quantifying reflectance wrt a standard illumination geometry considering the wavelength dependent scattered light in a given heterogeneous natural surface, (3) **Spectral data analysis**- study the absorption features, mainly  $\sim 1-$ ,  $\sim 2-$ ,  $\sim 3-\mu\text{m}$ , and understand the physical and chemical processes (the interplay of multiple crystals/cations (e.g.,  $\text{Fe}^{2+}/\text{Mg}^{2+}/\text{Ca}^{2+}/\text{Al}^{3+}$ ) and anions (e.g.,  $\text{SiO}_4^{4-}$ ) in various surface conditions when exposed to the near-infrared charged photons).

**QUALIFICATION:** 1. Minimum of 60% marks or equivalent GPA in Masters or M.Tech. or M.E in Physics/ Astronomy and Astrophysics / Geology/ Geophysics/ Earth Science/ Chemistry/ Space/Engineering Physics/ Mechanical engineering/Civil engineering/Computer engineering; 4 year / 8 semester Bachelor's degree program in Mechanical engineering/ Civil engineering/ Engineering physics/Computer engineering with a minimum of 75% marks in aggregate or equivalent

2. Valid National Level Examination, i.e., CSIR-UGC-NET (LS or JRF) /GATE/JEST/equivalent

**DESIRABLE:** Knowledge in Spectroscopy/Physical-chemistry/Mineralogy/Geochemistry, and proficiency in python/programming

**FELLOWSHIP:** ₹31,000/- pm plus HRA (as per rules)

**MAXIMUM AGE:** 28 years as on 29<sup>th</sup> Nov, 2023, age relaxation to entitled categories as per GOI rules.

**Mode of selection:** Online/Offline

**The position is purely temporary for a period of 6 months (extendable on satisfactory performance) or completion of project whichever is earlier and strictly co-terminus with the project and not leading to any PhD degree in NISER. It would, therefore, not confer any right/ claim, implicit, or explicit for consideration/ absorption against any NISER post.**

Interested candidates may send the application (page 2-3 of the advt.), CV, SOP indicating research interest and programming proficiency and knowledge in physical-chemistry/ spectroscopy/ Mineralogy/ Geochemistry, and scanned copies of relevant educational certificates, and two recommendation letters by the thesis/ project /course guide, to [thangjam@niser.ac.in](mailto:thangjam@niser.ac.in) by **29<sup>th</sup> Nov, 2023**. Please check <https://www.niser.ac.in/users/thangjam> or contact Dr. Thangjam for further information.

*No TA/DA will be paid to the candidate, for appearing in the interview or joining the position.*

**Dean (R&D)**



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विज्ञापन संख्या : NISER / R&D- 263 / EPS2203 / 34 / 2023-24

**भर्ती के लिए आवेदन पत्र**

Application for recruitment to the post of **Junior Research Fellow**

Paste your recent  
colour passport  
photograph

1. पूरा नाम (स्पष्ट अक्षरों में) | Full Name (In Block Letters):

\_\_\_\_\_

2. पिता / पति का नाम | Father's / Husband's Name: \_\_\_\_\_

3. जन्मतिथि | Date of Birth : \_\_\_\_\_

4. उम्र | Age as on (दिनांक 29.11.2023) : \_\_\_\_\_

5. पत्राचार के लिए डाक का पता : \_\_\_\_\_

Postal Address for Correspondence

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. स्थाई पता | Permanent Address : \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. (a) कॉन्टैक्ट नं | Contact No. : \_\_\_\_\_

(b) ई-मेल | E-mail : \_\_\_\_\_

8. क्या अ.जा./ अ.ज.जा./अ.पि.व./ शा.वि. में आते हैं? : \_\_\_\_\_

Whether belongs to SC/ST/OBC/PWD

(जाति प्रमाण-पत्र का नकल संलग्न किया जावे | Copy of Caste Certificate to be enclosed)

9. क्या CSIR-UGC NET / GATE में योग्य हैं? : \_\_\_\_\_

Whether CSIR-UGC NET / GATE qualified?

(प्रमाण-पत्र का नकल संलग्न किया जावे | Copy of the Certificate to be enclosed)

10. शैक्षणिक योग्यताएँ (स्नातक से) | Educational Qualifications (Starting from Graduation):

परीक्षा का नाम   Name of the Examination	बोर्ड/ विश्वविद्यालय/ संस्थान Board/ Univ./ Institute	उत्तीर्ण होने का वर्ष   Year of Passing	विषय   Subjects	अंको का प्रतिशत Percentage of Marks

11. अनुभव, यदि कोई हो | Experience, if any:

संगठन/ नियोक्ताका नाम Name of Organisation/ Employer	सेवा अवधि वर्ष तथा माह Period of Service in Year & Months	पदनाम Designation	वेतनमान तथा मूल/ सकल वेतन Scale of Pay & Basic/ Gross Emoluments	कार्य की प्रकृति Nature of duties

मैं सत्यनिष्ठा से पुष्ट करता / करती हूँ कि उपर्युक्त जानकारी मेरी अधिकतम जानकारी और विश्वास के अनुसार सही है। यदि मेरे द्वारा दी गयी कोई जानकारी किसी भी चरण पर गलत पायी जाती है, तो मेरा आवेदन रद्द किया जा सकता है।

I do solemnly affirm that the above information given by me is true to the best of my knowledge and belief. If any information given by me is found to be incorrect at any stage, my candidature may be cancelled.

दिनांक | Date :

स्थान | Place :

आवेदक का हस्ताक्षर | Signature of Applicant