



Indian Institute of Technology (ISM)
Dhanbad
Office of the Dean (Research & Development)

Sanction No and Date: 41/14/03/2025-BRNS/1215, 08/01/ 2026	IIT (ISM) Project No.: SRDP 1258 G	Date: 13/05/2026
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Project Staff (JRF) position under BRNS Project

Applications are invited under the sponsored project. The details of the project are as under:

Position	Junior Research Fellow
Number of Position (s)	1
Title of The Project	Passive Daytime Radiative Cooling-based Dew Harvester for Tritium Sampling
Principal Investigator	Dr. Kesavan Ravi, Assistant Professor, Department of Fuel, Minerals & Metallurgical Engineering, IIT (ISM) Dhanbad
Tenure of Project	3 years
Job Description (in maximum of 100 words)	The selected candidate will work on the development of passive daytime radiative cooling (PDRC) materials and dew harvesting systems for tritium sampling applications. Responsibilities include fabrication and characterization of polymer-based PDRC films/coatings, thermal and optical property evaluation, atmospheric dew harvesting experiments, field testing, data analysis, and technical reporting. The candidate will also assist in experimental setup development, surface characterization, and interdisciplinary research activities related to heat transfer, coatings, and sustainable cooling technologies. Preference will be given to candidates with hands-on experience in materials processing, polymer composites, thermal analysis, spectroscopy, or experimental heat transfer.
Essential Qualification	B.E./B.Tech (with NET/GATE qualification) or M.E./M.Tech (with GATE qualification) in Metallurgical Engineering, Materials Science & Engineering, Mechanical Engineering, Polymer Engineering, Nanotechnology, Surface Engineering, or allied disciplines.

Desirable Qualification	<ul style="list-style-type: none"> • Hands-on experience in polymer processing, coatings, thin films, or composite materials. • Experience with characterization techniques such as FTIR, UV–Vis–NIR spectroscopy, SEM, DSC, contact angle measurement, or thermal analysis. • Knowledge of radiative cooling, heat and mass transfer, or atmospheric water harvesting concepts. • Experience in experimental setup development, data analysis, and scientific writing. • Familiarity with CAD, ImageJ, MATLAB/Python, or numerical/experimental thermal analysis will be an added advantage.
Age and Relaxation (if any)	None
Fellowship	Rs. 37000/- per month
Last Date & Time	30/05/2026, 11:59PM
<p>Shortlisted candidates will be informed on the date of interview. Mere possession of minimum qualification does not guarantee an invitation to the interview. Candidates will be short listed based on their merit and as per the requirement of the project. All candidates should make their own arrangements for their stay at Dhanbad, if required. No TA/DA will be paid to attend the interview.</p> <p>Application (CV and relevant supporting documents) need be sent to kesavanravi@iitism.ac.in by the deadline.</p>	

(Signature of PI)