Indian Institute of Technology (Indian School of Mines), Dhanbad
The Office of Dean, Research & Development

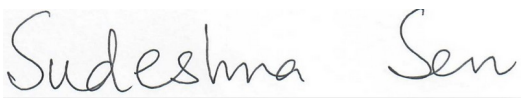
Sanction No and Date: ANRF/ARG/2025/009241/PS 20/03/2026	**IIT (ISM) Project No.** SRDP/1293/G	Date 22/05/2026

Recruitment for the position of "Research Associate-I" under ANRF-ARG Project

Applications are invited from interested and motivated candidates for the position of RA-I in a time bound sponsored project. The details of the project are as the following:

Position	**ANRF Research Associate-I**
Number of Position (s)	01 (one)
Title of The Project	Strong Correlation, Entanglement and Complexity in Topological and Flat Band Systems: A GPU accelerated approach
Principal Investigator	Dr. Sudeshna Sen, Department of Physics (sudeshna@iitism.ac.in)
Tenure of Project	The initial tenure will be of 01 (one) year. Upon completion of the first year the tenure may be extended by 06 months to 01 year based on the academic performance of the candidate and institute and PI's recommendation.
Job Description (in a maximum of 100 words)	The candidate will have to take part in the theoretical and computational research involving two cutting-edge areas in condensed matter physics: topology and strong correlations. Going beyond the previous mean-field studies, this project would involve in developing codes (on GPU architecture) and understanding the technically challenging regimes of these systems. One of the project objectives relies on the characterization of the phases using state-of-the-art many-body techniques, like the dynamical mean field theory and entanglement markers. It will involve developing tools that will be used to study correlated topological systems. Furthermore, s/he will be integrated in the collaborative activities of the group spanning both the national and international arena.
Essential Qualification	• Ph.D./MD/MS/MDS or equivalent degree or having 3 years of research, teaching and design and development experience after MVSc/M.Pharm/ME/M.Tech with at least one research paper

	in Science Citation Indexed (SCI) journal. * Candidates meeting minimum eligibility criteria are not necessary to be called for an interview. Criteria can be set to higher than minimum
Desirable Qualification	• Strong knowledge in theoretical/computational condensed matter physics, including quantum information based approaches. • Knowledge in computer programming and experience of developing codes from scratch is intended. • Candidates with prior experience of working in the field of strongly correlated systems or topological systems will be given preference. • Candidates should have a good record of publication in these or relevant fields. • Candidate is expected to contribute towards mentoring graduate students and development of research skills and competences including research led teaching.
Age and Relaxation (if any)	(a) The upper age limit for applying for award of RA shall be 35 years (relaxable as per the norms/orders of the Government of India)
Fellowship	(a) Rs. 58000/- per month + HRA (as applicable @ 18%)
How to Apply	Interested candidates should **email** a CV, with a research proposal(including past research experience) and a publication list in a **single pdf file** to the following email id: **ra1topology@gmail.com,** with subject line **ANRF postdoc application.**
Last Date & Time	**31-07-2026 at 5:00 pm**
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.	



(Signature of PI)