



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

Sanction No and Date: SRG/2022/000495 28 November, 2022	IIT (ISM) Project No. DST(SERB)(358)/2022- 2023/957/PHYSICS	Date 16/01/2023
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JRF position under DST-SERB Project

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

Position	JRF
Number of Position (s)	1
Title of The Project	Investigations of strongly correlated topological phases in heavy fermion and rare-earth materials
Principal Investigator	Dr. Sudeshna Sen, Department of Physics (sudeshna@iitism.ac.in)
Tenure of Project	2 years
Job Description (in maximum of 100 words)	<p>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 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. The recruited scholar would be engaged in such studies. Furthermore, s/he will be integrated in the collaborative activities of the group spanning both the national and international arena.</p>
Essential Qualification	<ul style="list-style-type: none"> Candidates must be holders of M.Sc. or equivalent in Physics with 1st class. Candidates must have valid GATE/CSIR-NET-JRF/NET-LS/INSPIRE or equivalent score or fellowship. <p>Shortlisted candidates will be informed on the date of interview.</p>

	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.
Desirable Qualification	<ul style="list-style-type: none"> • Good knowledge of fundamentals in physics like Quantum Mechanics, Statistical Physics, Electrodynamics and Mathematical Methods. • Knowledge in computer programming and handling linux based platforms would be beneficial. • Candidates with prior experience of working in the field of strongly correlated systems or topological systems will be given preference.
Age and Relaxation (if any)	Not more than 28 years as of 27-01-2023 (relaxable as per the norms/orders of the Government of India)
Fellowship	Rs. 31000/- per month + HRA (if applicable)
Last Date & Time	27-01-2023 at 5:00 pm; A copy of the application should be sent to the PI (Sudeshna Sen; E-mail: sudeshna@iitism.ac.in)
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.	

Sudeshna Sen

(Signature of PI)