

Advertisement for the recruitment of Junior Research Fellow (JRF) Position in the Department of Physics

Advanced Manufacturing and Technology DST

Applications are invited from highly motivated candidates for a JRF position in the field of “Oxide semiconductor thin films and their applications in the field of energy and DRA.” The work will focus on “designing of oxides-based materials and their thin films for energy-related applications.” This work involves the experimental realizations of oxide-based materials followed by theoretical investigations.

Eligibility (Compulsory)

- At least MSc with first class in Physics/Chemistry/Material Science
- Good knowledge of electronic structure theory and modification of electronic structure with defects
- (Compulsory) Expertise in Density Functional Theory and knowledge of handling computational softwares like “Quantum Espresso” and “VASP”.
- Capable of computation of phonon modes, band structure and electron localization function using different computational softwares.
- Applicants should have a first-author publication showing their relevant expertise as shown in the present advertisement
- Structural modeling using Mercury/VESTA software
- Candidates should have a strong understanding of material characterization (such as XRD, UV-vis/PL spectroscopy, Raman/FTIR spectroscopy, etc.) or knowledge of density functional theory and expertise in the electronic structure calculations with Quantum Espresso or CASTEP are encouraged to apply.

NOTE: The above qualifications are not optional and need to be understood as compulsory.

Desirable qualification

Understanding of Semiconductor oxides and band properties modification for modified/doped structures.

Fellowship details:

Junior research fellows will be paid a consolidated salary based on the salary structure of the DST or JRF category and other emoluments per month. The fellowship is for a period starting on Dec 01 2021 and ending on Feb 02 2022.

Service conditions:

(i) DA will not be entitled to JRF

(ii) House Rent Allowance (HRA): JRF may be provided accommodation based on availability, and those residing in accommodation provided by the institute will not be eligible for drawing HRA. Wherever provision of hostel accommodation is not possible, HRA may be allowed as per Government norms applicable in the city/location where they are working. The fellowship amount may be taken as basic for calculating the HRA.

(iii) Medical Benefits: The JRF will be entitled to medical allowance as per institute policy.

(iv) The travel entitlement for JRF for participation in scientific events/workshops in India will continue to be as per institute norms.

Duration: Until Feb 02 2022

Interview date: 25th November 2021

Kindly send your resume to Dr. S. Sen through email: sens@iiti.ac.in with the subject “**JRF under DST AMT.**” Only shortlisted candidates will be called for an interview on Google Meet. No TA/DA will be paid for the candidates appearing in the interview or for joining services. The last date for sending the resume is 23rd November 2021