



Indian Institute of Technology Jodhpur

Office of Research and Development

Advt. No.: IITJ/R&D(Advt.)/2024-25/040

13 September 2024

Project Recruitment

Applications are invited from the citizen of India for filling up the following temporary position in the Sponsored Research Project at this Institute. The position is purely temporary, initially for a period of 01 Year, and same extendable but co-terminus with the duration of the project, on a contractual basis with consolidated pay. The requisite qualification, experience and other details are given below:

1.	Project No.	S/SERB/MS/20230016
2.	Project Title	Dense matter inside the astrophysical compact objects consistent with gravitational-wave observations
3.	Name of the Project Investigator	Monika Sinha
4.	Duration for initial appointment	01 Year
5.	Name of the Post	Research Associate-1
6.	Post	01
7.	Consolidate Pay	Rs. 47,000/- + HRA@16%
8.	Minimum Qualification and Experience	<p>Eligibility: Ph D/MS or equivalent degree or having 3-years of research and teaching experience after ME/M.Tech. with at least one research paper in Science Citation Indexed (SCI) journal in the field of Astrophysics of compact stellar objects.</p> <p>Desirable Qualification: Research experience in astrophysics of compact stellar objects with quality publications.</p>
09.	Job Description	Research in Astrophysics of compact stellar objects
10.	Brief description of Project	Compact astrophysical objects are unique laboratory to probe matter at super-nuclear density. The project aims to discuss the observational constraints on the equations of state (EoS) of highly dense matter inside the compact objects and hence to narrow down the possible EoSs and the parameter space within limited number of EoSs. The aim is to study all possibilities in light of recent astrophysical observations. Our aim is to fix the parameterizations of EoSs making the matter compatible with both the nuclear physics experimental and astrophysical observational data. There are possibilities of more than one family of compact objects. The plan is to explore this possibility with the so far available astrophysical data. In that context the project plan is to

		study the neutron star matter with inclusion of dark matter and their consequences in the astrophysical observations. One rich area of cultivation is to comprehend the affects of neutrinos in dense matter composition and its consequences on BNS or supernova dynamics. In order to do that it is very crucial to study the hot dense matter. Consequently, the plan is to explore the hot dense matter within newly obtained experimental and observational data. In addition, the different non-radial oscillatory model of star fluid which may generate GWs will be studied.
11.	Maximum Age	Below 35 years
12.	Age Bar	Age will be calculated on the closing date of the online submission of the application. Relaxation in age for the category candidates only would be admissible as per Central Government Rules. Also kindly enclose the Caste Certificate along with the application.

The candidates possessing the requisite qualification and experience should apply through the **ONLINE process** up to **27 September 2024**.

It is mandatory to send the soft copy of the application with all relevant documents to recruitment_rnd@iitj.ac.in (Please mention the advertisement number in the subject line of the email). **Without documents, your application will not be considered.** There is no need to send the hard copy.

General Instructions to Applicant(s)

1.	The post(s) is purely temporary and contractual for a period of 01 Year and extension based on satisfactory performance, but co-terminus with the duration of the project
2.	Application, which is incomplete, not in prescribed format, without photograph or unsigned will be summarily rejected.
3.	Certificate in support of experience should be in proper format i.e. it should be on the organizations letter head, bear the date of issue, specific period of work, name and designation of the issuing authority along with his signature.
4.	Institute reserves the right to: a. Fix, modify or revise the eligibility conditions, age and selection criteria as per its requirements, at any time. b. Fill up the post, not to fill up the post or cancel the advertisement in whole or partly without assigning any reason. c. Place a reasonable limit on the total number of candidates to be called for the Written Test and/or Skill Test, Interview.
5.	The Institute shall verify the antecedents or documents submitted by a candidate at the time of appointment or during the tenure of the service. In case, it is detected that the documents submitted by the candidates are fake or the candidate has a clandestine antecedents/background and has suppressed the said information, then his/her services shall be terminated.
6.	Higher initial pay may be given to exceptionally qualified/deserving candidate.
7.	No TA/DA shall be paid to the candidates for attending the interview.

8.	No correspondence will be entertained from candidates regarding interview and reasons for not being called for interview.
9.	Canvassing in any form will be a disqualification.
10.	No interim correspondence will be entertained.
11.	No need to send hard copy.

Officer In-charge
Research & Development