



भारतीय प्रौद्योगिकी संस्थान इंदौर  
इंदौर 453 552  
**Indian Institute of Technology Indore**  
Indore 453 552

Office: +91 731 2438 733

Fax : +91 731 2438 721

IIT Indore

**Dated: 12/04/2021**

## **Advertisement for Junior Research Fellow (JRF) Position**

Applications are invited from motivated and eligible candidates for the position of Junior Research Fellow (JRF) in a DST-funded Research Project titled "Reducing parameterized complexities of matrix determinant and permanents". Objectives of the Project: By definition, matrix determinant and permanent are two very similar quantities of a square matrix, but computationally they are extremely different. Matrix determinant is a polynomial-time solvable problem; that is, it is in class P. Whereas matrix permanent is a #P-complete problem. The question we will be mostly focusing on is to find some classes of matrices whose permanent can be expressed as the determinant of some polynomial-size matrix.

The candidate may visit the profile of Dr. Ranveer Singh (<https://ranveeriit.github.io/>).

### **Eligibility:**

1. Master degree in Computer Science/ Maths with a valid NET/GATE score.

OR

2. Bachelor degree in Computer Science and Engineering with a valid GATE score.

**Desirable Qualification:** The candidate should have a basic knowledge of theoretical computer science, graph theory, linear algebra.

**Stipend:** INR 31000/- + HRA (if hostel accommodation is not provided).

**Duration:** Initial appointment will be for one year, which is extendable up to 3 years solely based on performance.

**The successful candidate can also be considered for admission to the Ph.D. program as a regular full-time scholar based on eligibility criteria at IIT Indore.**

**How to Apply:** Interested candidates are requested to submit a detailed CV to Dr. Ranveer Singh, Department of Computer Science and Engineering, Indian Institute of Technology Indore, via e-mail: [ranveer@iiti.ac.in](mailto:ranveer@iiti.ac.in) with the subject line "Application for JRF position" latest by May 20, 2021. The CV should include details of academic grades starting from 10th standard onwards with details of the year of passing, institute/university/college, etc., and also work experience and nature of work if applicable. If a candidate has a GATE/NET score, details such as year of passing, discipline, marks, all India rank should be mentioned in the CV. Incomplete applications will be rejected.

**Selection process (online interview):** Only shortlisted candidates will be called for an interview. Selected candidates will be intimated by email for an interview.