



**Advertisement for the Post of Junior Research Fellow**

**Advt. No.:IIITDMK/PR/JRF/A09/2025**

**Date:29.04.2025**

Applications are invited for the following post. The post is purely on a contractual basis.

Name of Position	Junior Research Fellow (JRF)
Number of Positions	One
Nature of Work	To perform research simulations and analyse the 5G/6G mobile communication systems.
Duration of the Project	Three Years
Duration of the Position	The post is purely on a contractual basis and initially the post is for 1 Year, extendable to 2 more years.
Stipend	Rs.37,000/- + HRA <i>Note: 30% HRA will be paid if no accommodation is provided by the Institute.</i>
Title of the Sponsored Project	Performance Study on the Cooperative Base Stations in 5G and Beyond Mobile Networks
Funding Agency	ANRF
P.I / Co-P.I	Prof. Selvaraj M D
Department	Electronics and Communication Engineering
Educational Qualification	M.Tech (ECE) and relevant streams.
Age Limit	30 years as on Last date of receiving the application (Age relaxation is applicable as per Gol norms)
Last date to apply	19.05.2025

भारतीय सूचना प्रौद्योगिकी अभिकल्पना,  
एवं विनिर्माण संस्थान, कांचीपुरम



INDIAN INSTITUTE OF INFORMATION TECHNOLOGY,  
DESIGN AND MANUFACTURING, KANCHEEPURAM

An Institute of National Importance Specialized in IT Enabled Design and Manufacturing  
Chennai - 600127

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### **How to Apply and Selection Procedure:**

1. Interested candidates are requested to submit their applications online (<https://forms.gle/pGPpQCTBER9FZMYK8>). Last date: May 19, 2025. While uploading, attach as per the format given in the Annexure.
2. Also, take print of the application form, fill, sign, and submit the hard copy at the time of Interview.
3. Candidates should be present physically at IIITDM Kancheepuram located at Chennai - 600127 for the written test and/or interview.
4. Candidates should produce all educational and experience certificates at the time of interview for verification.
5. No TA/DA will be paid for attending the interview.
6. The selection process consists of written test followed by Interview. The topic for written test along with syllabus is enclosed.
7. JRF can register for a PhD in November/December 2025 session subject to clearing the test/interview conducted by the Institute. Fellowship during Ph.D will be supported by IRG/Institute subject to satisfying the guidelines stipulated by the agency/institute.

**For any clarification regarding the application process, the candidate may contact the PI. email: [selvaraj@iiitdm.ac.in](mailto:selvaraj@iiitdm.ac.in)**

Sd/x

Dean (SR)

## Topics for Written Test

### **Random Processes:**

Auto correlation and power spectral density, properties of white gaussian noise.

### **Analog Communications:**

Amplitude modulation and demodulation, angle modulation and demodulation, spectra of AM and FM, super heterodyne receivers.

### **Probability and Information Theory:**

Probability distributions, binomial distribution, Poisson distribution, exponential distribution, normal distribution, joint and conditional probability.

Entropy, mutual information and channel capacity theorem.

### **Digital Communications:**

PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.

Duration of the Written Test: 10.00am - 11.30am

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Appl. No.:  
(will be filled by Office)

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## APPLICATION FOR THE POSITION OF PROJECT STAFF

Candidates Photo  
to be pasted here

1. Advertisement Number:
2. Name of the Post:
3. Candidate's Full Name (As per SSLC Mark sheet):
4. Father's Name of the Candidate:
5. Date of Birth of the Candidate:
6. Nationality:
7. Gender:
8. Category (Gen / OBC / SC / ST):  
(For age relaxation only)
9. Address for Communication:
  
10. Permanent Address:
  
11. Contact Phone / Mobile Number(s):

12. Email Address:

13. Educational Qualifications Starting from X<sup>th</sup> / SSLC:

Sl. No.	Degree & Branch	Institute / University	Year of Entry & leaving	Percentage / CGPA & Class	Mode (Regular / Part-time / etc.)

14. Academic Record: GATE/ CSIR - NET qualification details with percent marks / Rank, year of qualifying, etc.:

15. Names and addresses of two referees along with phone numbers and e-mail addresses:

a)

b)

16. Are you currently working in Central / State / Semi-Govt / PSU / Autonomous Bodies of the Govt.? (If yes, please submit NOC issued by your present employer):

17. Present Position / Designation:

18. Work Experience (in reverse chronological order including post held at present):

Sl. No.	Organization	Designation	Start Date & End Date	Pay Scale / Total Pay

19. If selected, time required to join:

20. Any other information you wish to mention:

**UNDERTAKING**

I hereby declare that I have carefully read and understood the instructions given in the Advertisement. All information furnished in this form as well as the attached documents are true and correct to the best of my knowledge and belief. I fully understand that if it is found at a later date that any information given in the application is incorrect / false or if I do not satisfy the eligibility criteria, my candidature / appointment is liable to be canceled / terminated.

Signature of the Applicant

Date: