



टाटा मूलभूत अनुसंधान संस्थान

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

भारत सरकार के परमाणु ऊर्जा विभाग की स्वायत्त संस्था एवं समविश्वविद्यालय

(An Autonomous Institute of the Department of Atomic Energy,

Government of India, and a Deemed University)

सर्वेक्षण संख्या 36 / पी, गोपनपल्ली गांव, सेरिलिंगमपल्ली मंडल, रंगारेड्डी जिला, हैदराबाद - 500 046

Survey No.36/P, Gopanpally Village, Serilingampally Mandal,

Ranga Reddy District, Hyderabad - 500 046

Advertisement No. 2026/02

Applications are invited for following position under the Project Title: Atomic Magnetometry and Quantum Sensing Systems (**QuBeats/Nostrodamus Research Grant Project**) at Tata Institute of Fundamental Research, Hyderabad. Please visit our website for application details and prescribed requirements <https://recruitment.tifrh.res.in/applicants/>.

S. No	Name of the Post	Reservations					Age Below (years) as on Jan 01, 2026	TME
		UR	SC	ST	OBC	PwBD		
1.	System Engineer under (QuBeats/Nostrodamus Research Grant Project)	1	-	-	-	-	30	Consolidated pay of Rs. 90,000/- to Rs. 1,30,000/- per month (Including HRA)

Abbreviations: UR- Unreserved, TME-Total Monthly Emoluments.

System Engineer: One (01) Post (Un Reserved): This position will be for a period of 1 year from the date of joining. Extendable up to a maximum period of 3 years subject to the annual performance review and requirement.

Educational Qualification: B.Tech/ M.Tech/ Ph.D. in Electronics, Instrumentation, Electrical Engineering, or Applied Physics.

Essential Experience: 03 years or more (Sr. Engineer) or 01 to 03 years (Jr. Engineer) in precision instrumentation or advanced electronics development.

With hands-on expertise in:

- **FPGA design** (Verilog/VHDL)
- **Embedded C/C++** and microcontroller systems
- **Analog circuit design** and low-noise electronics

Strong understanding of **PID control, precision current/voltage regulation, and power electronics.**

Experience with **LabVIEW, MATLAB, Python**, or similar instrumentation/control environments.

Desirable Qualifications:

- Experience with laser diode drivers, photodiode amplifiers, and opto-electronic interfacing.
- Knowledge of coil-driver electronics, high-stability current sources, and low-noise PCB design.
- Exposure to atomic/optical physics labs, quantum sensors, or laser-based measurement systems.

Other Information:

The Quantum Sensors & Metrology Laboratory at TIFR Hyderabad develops high-sensitivity atomic magnetometers, ultra-low-field NMR systems, and compact quantum sensing platforms for navigation, defence, and geophysical applications. Our group has demonstrated pT-sensitivity optical magnetometers, wide-bandwidth field sensors, and scalable architectures for low-field NMR and geomagnetic sensing. In collaboration with QuBeats Technologies, this project aims to engineer robust, field-deployable atomic magnetometer units, integrating precision electronics, laser/optics control, and FPGA-based real-time signal processing. Engineers joining this effort will work closely with physicists and hardware developers to translate quantum-sensor physics into practical, deployable systems.

General Information:

1. Higher starting salary could be considered for deserving candidates.
2. Applications from the candidates will be accepted ONLY ON-LINE through the link <https://recruitment.tifrh.res.in/applicants/>. Please upload CV and a brief statement of interest as a pdf file in the portal.
3. On-line applications must be submitted by **February 22, 2026**.
4. The candidates are required to produce following original documents with copies at the time of written test/interview:
 - a. Printout of online application form.
 - b. Identity proof (Aadhar Card/ Election Card / Pan Card / Passport Driving License).
 - c. Date of birth / Proof of age.
 - d. Educational Qualification (all mark sheets and certificates).
In case Universities/Board award letter grades/CGPA/OGPA, the same will have to be indicated as equivalent percentage of marks as per the norms adopted by the University / Board. In the absence of the same, the candidature will not be considered (While submitting original documents for verification, the candidates will have to produce the norms of the University / Board for conversion of grades/CGPA/OGPA to equivalent percentage of marks).
 - e. Experience Certificate/s.
 - f. Conduct certificates from two respectable persons.
5. Outstation candidates called for recruitment process for the above post will be paid III Tier A/C return train fare for the journey by the shortest route from the nearest railway station of their place of residence on the production of photocopies of onward and return journey tickets.
6. The Institute reserves the right to restrict the number of candidates for written test/interview to reasonable limit on the basis of qualifications and experience higher than the minimum prescribed in the advertisement. Mere fulfilling the essential and desirable qualifications will not entitle an applicant to be called for written test/interview.
7. More vacancies may also be filled through this advertisement. The Institute reserves the right not to fill any/some posts herein advertised. Canvassing in any form shall disqualify the candidate.
