Advertisement for the Post of JRF in DRDO sponsored project

Applications are invited for the following assignment on a purely time-bound research project undertaken in the Department of Physics of the Indian Institute of Technology Hyderabad.

1	Name of the Post	Junior Research Fellow (JRF)
2	Number of Post	One (1)
3	Name of the Research Project	**Development of S, C and X Band Ferroelectric Tunable Filters for Microwave Device Application**
4	Name of the Sponsoring Agency	**DIA-COE (DRDO)**
5	Duration of the Position	Initially 1 year, extendable up to 3 Years or to end of tenure of the project
6	Consolidated Stipend	Rs. 37,000 +27% (HRA) per Month. HRA will only be provided if the hostel accommodation is not alloted
7	Essential Qualifications	**M.Sc. Physics or M. Tech in Laser science/Applied Physics/ Photonics/Materials Science/Electronics with 60% marks or equivalent CGPA. A valid GATE score is essential. CSIR/NET preferred.**
9	For technical information of the project, the candidate may contact the Principal Investigator at the following address/phone: Dr. Yogesh Kumar Srivastava, Email: yogesh.srivastava@phy.iith.ac.in, Or Prof. Prem Pal, Email: prem@phy.iith.ac.in Address: Department of PhysicsIndian Institute of Technology Hyderabad, Kandi, TS-502284, India Tele. No: 040-2301-8458. E-mail: Yogesh.srivastava@phy.iith.ac.in & prem@phy.iith.ac.in	

- Eligible candidates should apply with their CV via google form https://forms.gle/c79GBazk6YyRrHWVA on or before August 15, 2025.

- Candidates will be shortlisted for the interview based on merit and will be informed via email.

- Candidates shortlisted for interview should appear in person/ online with originals of degree certificates (one set of xerox), and date of birth proof along with any other relevant information (like copies of publications, awards, recommendations etc.).

- No travelling or any other allowances is admissible for attending the interview.

- Initially the JRF will be appointed for a period of one year and subsequently extended till the end of the project based on the student's performance.

Details about the projects:

Title: Development of S, C and X Band Ferroelectric Tunable Filters for Microwave Device Application

Description of the project: The aim of the proposed research is to develop ferroelectric-based passive and tunable filters for various frequency bands relevant to modern communication systems. These filters will be designed to exhibit low insertion loss and high return loss, ensuring efficient signal transmission and minimal reflection. The passive filters are expected to demonstrate sharp roll-off characteristics outside their passbands, effectively suppressing unwanted frequencies. For the tunable filters, the focus will be on achieving a high degree of selectivity with strong attenuation just beyond the passband edges. The research will leverage the unique dielectric properties of ferroelectric materials to realize compact, high-performance filter designs suitable for integration into advanced RF and microwave systems.

Desired Skill Set: Hands-on experience in the design and fabrication of microwave devices, thin-film deposition and characterization, as well as micro- and nanofabrication techniques.