भारतीय प्रौद्योगिकी संस्थान हैदराबाद
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Indian Institute of Technology Hyderabad
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Advertisement for the post of Research Associate (RA) position in the area of Microwave Devices and Micro-Nano-fabrication

Date of Advertisement: 28/07/2025

Applications are invited from the Indian nationals for the post of Research Associate in the area of Microwave Devices and Micro-Nano-fabrication with relevant prior experience.

Name of the post	Research Associate (RA)
Number of vacancies	1
Sponsored Project	Development of S, C and X Band Ferroelectric Tunable Filters for Microwave Device Application
Salary	Rs. 58000/- +27 % HRA (if hostel is not provided)
Appointment period	12 months (extendable up to two more years or till the closure of project.) Note: 1. Monthly fellowship will be released after monthly progress review report. 2. In case of unsatisfactory progress, the candidate may be asked to leave after giving one-month notice.
Essential Qualification	1. PhD with **BE/BTech/MSc/M.Tech/MS/Equivalent** in Physics/EE/EC/Materials Science/**other relevant branches** with research focus in the area of Microwave device design, fabrication and characterization. Candidate with relevant experience and publication in standard journals will have added advantage. 2. Candidate should have good academic records throughout and good writing skills. 3. Candidates should not have published in Predatory Journals.
Age limit:	Maximum 40 years as on the day on which the application is made.
Job Description	**Key Responsibilities and Skill Set:** - **Literature Review:** Collecting relevant literature - **Design and Simulation of Microwave Devices:** Hands-on experience in designing microwave components and circuits using industry-standard Electronic Design Automation (EDA) tools such as Advanced Design System (ADS). Performed numerical simulations in the microwave frequency domain to analyze device behavior and optimize performance parameters prior to fabrication. - - **Optical and RF Measurements:** Experimental characterizations including optical measurements and high-frequency testing using tools such as a **Vector**

	Network Analyzer (VNA). Developed protocols for accurate S-parameter measurements, dielectric property extraction, and frequency domain analysis of engineered structures. **Microfabrication Process Expertise:** Cleanroom-based microfabrication processes, including silicon wafer cleaning, thin-film deposition (thermal evaporation, sputtering), photolithography for pattern transfer, wafer bonding, and both wet and dry etching techniques (e.g., RIE). Familiar with process optimization and troubleshooting in lithographic and etching steps. - **Characterisation of Micro- and Nanostructures:** SEM, AFM, Ellipsometry, and Optical Microscopy to assess surface morphology, thickness, and optical constants of fabricated structures. - **Technical Coordination and Lab Operations:** Report preparation and lab management and interaction with sponsored agencies.
Application Procedure	Candidates are required to fill up the google form and send the following documents in a **single pdf** file 1. Latest CV with marks percentage, experience, and a list of patents and publications. 2. Certificates/Transcripts with clear mention of discipline, percentage marks and date of birth. 3. Statement of purpose stating relevant experience towards the project. 4. At least two best publications in relevant area. Through a google form https://forms.gle/YBYSjm4RnZvkFJ588 by 15th August 2025.
Selection Procedure	Candidates will be shortlisted based on the eligibility criteria, academic record, and relevant experience. Only, shortlisted candidates will be intimated through email for the online interview by the selection committee. Merely meeting the criteria may not guarantee a call for an interview. The position will be left vacant and a new advertisement with an extended date will be given if no suitable candidate is found.

For more details about our work, please visit https://people.iith.ac.in/yogesh.srivastava/ and https://sites.google.com/phy.iith.ac.in/prof-prem-pal/bio

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