



INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR
Research & Development Office

ADVERTISEMENT NO. SPON/10455/Advt0290 DATED 04.08.2026

Applications are invited for a temporary position of **Project Associate II** at IIT Gandhinagar.

The details are as below:

Name of PI	Prof. Nihar Ranjan Mohapatra	Department	Electrical Engineering
Project title	Silicon and Advanced Semiconductor Manufacturing Research and Training Hub (SAMARTH)		
Designation	Project Associate II		
Number of positions	One		
Application Link	http://recruitment.iitgn.ac.in/projectstaff/ Applicants must submit the following documents as part of their application: 1. Curriculum Vitae (CV) The CV should clearly include: • Educational qualifications, including degrees, institutions, year of graduation and CGPA/grades. • Details of relevant academic, research and industry projects. • Technical expertise and tool experience. • Professional experience, including internships or full-time employment (if applicable). • Publications, patents, open-source contributions, technical reports, or other notable academic/professional achievements (if applicable). • Awards, scholarships, certifications, and other accomplishments relevant to the position. 2. Statement of Purpose (SOP) (1–2 pages) The Statement of Purpose should address the following: • Your motivation for applying for this position. • Your prior experience and expertise relevant to the role. • How your technical skills, research experience and career aspirations align with the job description. Your long-term career goals and how this position will help you achieve them.		
Last date of application submission	30 th August 2026		
Consolidated Monthly Remuneration	₹50,000/- to ₹90,000/- per month (based on the qualification)		
Duration of appointment	One year, extendable based on satisfactory performance.		
Eligibility Norms ¹	☒ Institute norms	☐ Funding Agency norms	
Age Limit	As per requirement.		

-Merely meeting the minimum eligibility criteria will not guarantee the shortlisting and/or appointment. A higher cutoff level may be used. The Institute reserves all rights, not to call an applicant for a selection test or not to fill up a position through this round of selection process without assigning any reason.



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Required Qualification*	M.Tech./M.S. or equivalent qualification in an appropriate discipline. OR B.Tech./B.E./M.Sc./M.C.A. or equivalent in an appropriate discipline with a minimum of 02 years of post-qualification experience. The percentage/grade points with respect to the academic qualification will be a minimum 60% or equivalent grade from graduation onwards and 55% or equivalent grade in class 10th and 12th.
Key Responsibilities	• Conduct research and development in computational lithography, including OPC, ILT, SMO, mask optimization and process window enhancement. • Develop and implement GPU-accelerated algorithms for large-scale lithography simulations and optimization. • Design and implement AI/ML and deep learning models for lithography optimization, hotspot detection, mask correction and pattern prediction. • Develop simulation workflows for optical imaging, photoresist modeling and lithography process optimization. • Build scalable software tools using modern programming frameworks for semiconductor manufacturing applications. • Analyze simulation and experimental data and validate computational models. • Collaborate with industry partners and academic researchers on sponsored R&D projects. • Prepare technical reports, research publications, project documentation and presentations. • Conduct workforce development programs in the computational lithography domain.
Essential Skills	• Strong programming skills in Python and C/C++. • Experience with scientific computing and numerical algorithms. • Good understanding of linear algebra, optimization techniques, and data structures. • Excellent analytical, problem-solving, and communication skills.
Desirable Skills	• Prior experience in computational lithography, including Optical Proximity Correction (OPC), Inverse Lithography Technology (ILT), Source Mask Optimization (SMO), Resolution Enhancement Techniques (RET) or mask optimization. • Experience with GPU programming using CUDA, OpenCL, or parallel computing frameworks. • Knowledge of machine learning, deep learning, or scientific AI frameworks such as PyTorch or TensorFlow. • Experience in high-performance computing (HPC), distributed computing, or multi-GPU programming. • Familiarity with photolithography process, optical imaging or process simulation. • Experience with numerical optimization, inverse problems, image processing, or computational electromagnetics. • Proficiency with Linux environments, Git, and software development best practices. • Prior research experience demonstrated through publications, conference presentations, open-source software contributions, or industrial projects.

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For Query, Please Contact
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nihar@iitgn.ac.in

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