INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR
Research & Development Office

SPON/10455/Advt0370

Name of PI	Nihar Ranjan Mohapatra	Department	EE
Project title	Silicon and Advanced Semiconductor Manufacturing Research and Training Hub (SAMARTH)		
Designation	Project Engineer (Semiconductor Safety & EHS)		
Number of positions	One (1)		
Application Link	http://recruitment.iitgn.ac.in/projectstaff/		
Last date of application submission	20 November 2026		
Consolidated Monthly Remuneration including HRA	INR 60,000 – 1,25,000 per month, depending on qualification and experience		
House Rent Allowance per month (If applicable)	NIL		
Duration of appointment	One year initially, extendable on satisfactory performance up to the project completion date.		
Eligibility Norms[1]	☒ Institute norms	☐ Funding Agency norms	
Essential Qualification/Experience as per the norms[1]	Ph.D. or equivalent in an appropriate discipline with a very good academic record throughout. ***OR*** M.Tech./M.S. or equivalent in an appropriate discipline with at least 2 years of post-qualification experience in teaching, research, industry or design in an organization of repute. ***OR*** B.Tech./B.E./M.Sc. or equivalent in an appropriate discipline with a minimum of 04 years of post-qualification experience in teaching, research, industry or design in an organization of repute. *Minimum 60% marks or equivalent grade from graduation onwards, and 55% or equivalent grade in Class 10 and Class 12.*		
Desirable Qualification/Experience	• **Relevant industry exposure:** Practical EHS or laboratory-safety experience in semiconductor fabrication, MEMS/nanofabrication cleanrooms, or comparable facilities handling hazardous chemicals, gases, and processing equipment. • **Cleanroom operations:** Understanding of ISO Class 5–8 environments, gowning, contamination control, housekeeping, environmental monitoring, and coordination with cleanroom/facility engineers. • **Chemical and gas safety:** Experience with hazard evaluation, SDS, segregation, safe storage and handling of acids (including HF where used), solvents, oxidizers, and hazardous gases; familiarity with gas cabinets, leak detection, exhaust and abatement systems. • **Semiconductor equipment safety:** Awareness of hazards associated with wet benches, photolithography, PECVD/CVD, ALD,		

"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."

	PVD/sputtering, plasma etching, and thermal-processing tools, including electrical, RF, vacuum, pressure and chemical hazards, as applicable. • **Risk assessment and safe work systems:** Experience with HIRA/JSA, pre-startup safety reviews, management of change, permit-to-work, lockout/tagout (LOTO), incident investigation, and corrective/preventive actions. • **Standards and regulatory awareness:** Working knowledge of relevant SEMI guidelines (particularly S2, S6 and S10; S14/S22 as applicable), ISO 14644, and applicable Indian requirements for gases, hazardous chemicals and hazardous-waste management. • **Professional safety training:** An industrial-safety diploma or certifications such as NEBOSH/IOSH, together with experience in fire safety, first aid, emergency drills and safety training, would be an advantage.
Job Description	The Project Engineer will coordinate and implement the day-to-day Environmental, Health and Safety (EHS) program for SAMARTH cleanroom and semiconductor laboratories at IIT Gandhinagar. The role combines preventive risk management, equipment and facility safety, training, emergency preparedness and compliance support. The appointee will work closely with the PI, facility engineers, equipment owners, vendors and designated Institute safety authorities. **Key responsibilities** • **EHS systems and SOPs:** Develop and maintain laboratory safety policies, hazard registers, SOPs, chemical/gas handling instructions, cleanroom-entry protocols, equipment-specific precautions and safety records. • **Equipment installation and commissioning:** Coordinate risk assessments and pre-startup safety reviews for new or modified semiconductor tools, checking vendor EHS documentation, utilities, emergency-stop functions, interlocks, safe exhaust/abatement interfaces and operator readiness before use. • **Chemical and gas management:** Maintain chemical and gas inventories and SDS; verify labeling, compatibility and storage controls; coordinate safe chemical transfer and cylinder/gas-line activities with trained personnel; address HF and other high-consequence chemical hazards where relevant. • **Facility engineering controls:** Work with responsible engineers and vendors to verify and document routine checks of gas detection and alarms, gas cabinets, ventilation/exhaust, scrubbers/abatement, safety showers, eyewash stations and emergency shutdown systems. • **Safe work and access control:** Implement risk-based work authorization, equipment-user training records, contractor/visitor

	safety instructions, permit-to-work and LOTO procedures for maintenance and high-risk tasks. • **Hazardous waste and compliance:** Coordinate waste segregation, container labeling, compatible storage, approved disposal pathways, required records and periodic compliance reviews with the Institute's designated personnel. • **Emergency preparedness:** Maintain emergency plans and evacuation procedures; organize drills for chemical spills, gas alarms, fire and medical events; ensure appropriate PPE, spill-control resources and clear escalation to trained responders. • **Audits and incident management:** Conduct safety inspections, document near misses and incidents, support root-cause investigations, and track corrective actions through closure; prepare periodic safety-status reports. • **Workforce development:** Design and deliver safety induction, refresher sessions and equipment-specific awareness modules for students, researchers, trainees and technical staff participating in SAMARTH programs. • **Coordination and continual improvement:** Collaborate with the R&D Office, Institute safety teams, vendors and laboratory managers on safety reviews, external inspections, recordkeeping and continuous improvement initiatives.
Contact	Mention PI's Name & Mail Id Nihar Ranjan Mohapatra Professor, EE nihar@iitgn.ac.in