SATHI FOUNDATION-BITS PILANI

Position: Project Associate II – Microfabrication and semiconductor device characterization

Location: BITS Pilani, Pilani Campus

Contract: 2 years' expansion depending on performance and funding

Salary: Annual CTC up to INR 4.8-5.4 lakhs (depending on qualification/experience/ suitability)

Reporting to: COO/ Head/ Associate Head

About SATHI FOUNDATION-BITS PILANI

The SATHI FOUNDATION-BITS PILANI (henceforth "The Foundation") is a Section 8 nonprofit company hosted by BITS Pilani under the Sophisticated Analytical & Technical Help Institutes (SATHI) Scheme of Department of Science and Technology, Government of India (GOI). The mandate of the company is to create a National Facility with major analytical instruments and further provide shared, professionally managed services and strong Science and Technology infrastructure/facilities, with efficiency, accessibility, and transparency of the highest order under one roof to service the demands of faculty, researchers, scientist, and students of host and user institutes/organizations (including other academic institutes, universities, national laboratories, start-ups, manufacturing and engineering industries, SME's, R&D Labs) to enable them to carry out R&D activities on a round the clock basis with minimum downtime. The primary aim is to build state-of-the-art national facilities at BITS Pilani, Pilani Campus, extending support to researchers, innovators, and startups building products and solutions.

The context and the role: The Foundation was established in 2024, and the foundation aims to become a catalyst for the next wave of IoT based smart electronic devices, prototyping, biotechnology, and healthcare startups in India while also meeting the diverse needs of researchers in various scientific and engineering domains. Ultimately, the collective efforts of the foundation aspire to contribute to the betterment of society. The executive team is being built, and the Foundation is hosted by BITS Pilani, Pilani Campus and is connected to top researchers in the BITS network and beyond.

The job role required motivated and skilled technical staff to support the operation, maintenance, and training activities of advanced nanofabrication facilities, specifically different vapor deposition systems including **Physical Vapor Deposition (RF/DC Sputtering & E-beam/Thermal deposition)** and **Chemical Vapor Deposition (CVD), Electrospinning**, and **Furnaces (Annealing furnace and oxidation furnace)**. The Technical Staff will also be responsible for the operation, maintenance, and application support of **Lithography**, **Probe station & parameter analyzer, Packaging tools** and **Gas Chromatography–Mass Spectrometry (GC/MS) systems.** The role requires hands-on experience with cleanroom practices, and thin-film deposition. The selected candidate will play a key role in assisting

researchers, ensuring smooth operation of equipment, and maintaining safety and compliance standards.

Key Responsibilities

- Operate, maintain, and have knowledge about different CVD systems (PECVD, and thermal CVD), PVD (RF/DC Sputtering & E-beam/Thermal deposition) and furnaces.
- Support users in process development for thin film deposition, and thermal processing
- Operate and maintain lithography equipment, including Smart Print Lithography and Direct Laser Writers**.**
- Operate and maintain Probe Station and Semiconductor Parameter Analyzer for electrical I–V/C–V characterization of semiconductor devices.
- Handle packaging tools such as Wire Bonder**,** Dicing Saw**,** and Thickness Profiler for device interconnection, wafer cutting, and film thickness measurement.
- Ensure accurate calibration, stable operation, and repeatability of electrical and mechanical processes.
- Prepare standard operating procedures (SOPs), conduct training sessions, and ensure adherence to cleanroom protocols.
- Monitor equipment performance and schedule preventive maintenance.
- Maintain detailed logs of experiments, equipment usage, and consumables.
- Ensure compliance with safety regulations related to gases, chemicals, and high voltage/equipment handling.
- Support research projects, student training, and collaborative programs within the facility.

Required Qualifications:

- **B.Tech./M.Tech. /M.Sc. in Physics, Chemistry, Materials Science, Electronics, Nanotechnology, or related field.**

Desirable qualifications:

- Prior 1-2 year hands-on experience experience in an established **nanofabrication facility**
- Hands-on experience in **thin film deposition**
- Familiarity with cleanroom protocols, vacuum systems, and gas handling.

How to Apply & submission of application:

- Please send your latest CV (not exceeding 3 pages) latest by 17:00 hrs Indian Standard Time (IST) by 21 th **November**.

- Please send the details to: sathi@bits-pilani.ac.in