

# National Institute of Technology, Durgapur

## Department of Computer Science and Engineering

Mahatma Gandhi Avenue, Durgapur 713209, West Bengal

Advt. No.: NITD/CSE/IPOLLUSENSE/Recruitment/2025/04

Date of Advt.: 24.04.2025

Applications are invited from Indian citizens for the following posts to work on a project titled “*i-PolluSense: Intelligent Air & Noise Pollution Sensing and Alert Companion*.” [website](#) funded by IIT Kharagpur AI4ICPS I Hub Foundation.

**Project Summary:** This project proposal aims at developing the platform with an affordable device to monitor air and noise pollution in India at the personal/community level. The platform integrates pollution sensors into a single board and uses a TinyML microcontroller for on-device processing. This device connects to the user's mobile phone via Bluetooth Low Energy and provides alerts and personalized recommendations based on the user's health profile and pollution exposure levels. The UI will use structured questionnaires to keep the steps logical and explainable. This device is a significant step in addressing the feature requirement for an environment pollution monitoring device in India at the personal/community level. With the advances in Large Language Models (LLMs) and Natural Language Understanding (NLU), especially in low-resource languages, the idea is to integrate such features using the current state of the art.

### Expected Deliverables:

1. Integrating an affordable air and noise pollution monitoring device
2. Developing reliable sensing using AI models to ensure sensor fault tolerance, sensor calibration and activity recognition
3. Implementing intelligence at the Edge
4. Interactive pollution exposure estimation and action recommender

### Summary of vacant positions advertised:

Sl. No.	Post Category	Number of vacancies	Duration	Fellowship Amount (INR)/month
1.	Intern	4	2 months	5000.00

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Details of the general terms and conditions corresponding to each category may be found in the following pages.

# General Terms & Conditions

## A. Post for Interns (Four)

Post	Interns
Name of the Project	i-PolluSense: Intelligent Air & Noise Pollution Sensing and Alert Companion
Sponsored Agency	IIT Kharagpur AI4ICPS I Hub Foundation
No. of Post	Four (04) (Number of Posts May Vary)
Duration	2 Months
Principal Investigator (PI) & Co-PI	Prof. Subrata Nandi (PI); Dr. Sanghita Bhattacharjee (Co-PI); Dr. Sujoy Saha (Co-PI)

### General Terms & Conditions

Essential Qualifications	Pursuing BTECH OR Pursuing M.E/M.Tech/MS/MCA in Computer Science and Engineering/ Electronics and Communication Engineering/ Information Technology with minimum 7.5 CGPA or 70% marks from any recognized Institute/University.
Desirable Qualifications/Experience	A. Knowledge of Machine Learning /Python/Natural Language Processing, Algorithm, Good Programming and Analytical Skills, B. Hardware Development & Integration, Data Structure Algorithm C. Android Application Development, Web Development, Data Structure, Algorithm
Fellowship	INR 5,000/- per month consolidated
Institute right	The institute has the discretion to restrict the number of candidates to be called for the interview on the basis of screening. Candidates may only be recruited if suitable candidates are found.
Others:	<b>**</b> Selected candidate is expected to play a major role in the fundamental research, simulation and system development activities related to the project. Financial assistance for attending Team meetings, Focus area meetings, Project meetings, National conferences etc. will be funded from the project whenever scheduled. The above position is purely temporary, and is for a period of 5 months but subject to the condition of the candidate's performance (Performance will be evaluated every two months). Selected candidates will not be entitled to claim for regular appointments/absorption in this institute. It can be extended later to 12 Months more. No TA/DA will be paid for attending the interview (if any). Applications reaching after the specified date will not be considered. Canvassing in any form will disqualify the candidature.

### How to apply:

Interested candidates are advised to fill up the Google form latest by **03.05.2025**. Kindly attach a latest curriculum vita. Incomplete applications will be rejected.

**Link to Google form. :-** <https://bit.ly/3RoXJi5>

Only Shortlisted candidates will be called for an interview via online/offline mode. A list of shortlisted candidates will be displayed on the Institute's website. In case of any query, kindly write to **mail-d snandi.cse@nitdgp.ac.in**

Prof. Subrata Nandi (PI – Project i-PolluSense),  
Professor, Department of CSE, NIT Durgapur