



Workshop on Measuring AQI levels in Urban Neighbourhoods

Under the DRIIV Social-Air Quality Index

(S-AQI) project

15th September 2021, Wednesday

4 - 6 pm

Location: Meeting Room, Dept of Social Science and Humanities

2nd Floor, R&D Block, IIIT- Delhi

Organizers: Dr Aasim Khan, Dr Praveen Priyadarshi, Dr Raghava Mutharaju, Ruchi Diwedi, Muzamil Yaqoob

The objective of the S-AQI project is to understand the pollution level at a local scale in various urban spatial settings of Delhi and its impact on different social groups in these areas. We plan to study how these groups are coping with the challenge of air pollution, and empower them with new data methodology in supporting their management of and contribution to air pollution. It takes a bottom-up approach to make these communities hold the data, procured through sensors so that they can regulate their daily activities or make decisions around them.

The workshop to be held on 15th September aims at three main objectives:

- Understanding the history and social context for the emergence of AQI as a measure for air pollution especially in the context of Delhi.
- Learning about the technical aspects of air pollution monitoring and using sensors which will be made available in collaboration with Aerogram.
- Understanding the urban neighbourhoods in which S-AQI will be implemented, in Najafgarh and Okhla region of the national capital.

Agenda

4:00-4:10pm- Introduction to S-AQI by project team.

4:10-4:25pm- Introduction to AQI by *Dr Sarita Ahlawat* (Aerogram IIT Delhi)

4:25 -4:40pm- *Surajit Chakravarty*, Associate Professor Urban Planning, School of Public Policy, IIT-Delhi:
Social life of neighborhoods and technology

4:45-5:15pm- Demonstration of air quality sensors by *Manoj Sabukar* from Aerogram IIT Delhi

5:15-5:45pm- Project RAs will introduce the research sites.

Local stations for S-AQI monitors:

We are going to base our sensors in Cyber Cafes in below mentioned urban neighbourhoods. They are an appropriate site since it has technical support like Wi-Fi, Manpower (technical understanding). Air quality sensors require Wi-Fi connectivity. We have six EzioStat (with 1000mAh battery) sensors with us.

A brief note on the selected proposed locations for the study:

In order to observe air quality variation in urban spaces, two locations, Okhla and Najafgarh, have been selected based on the air quality index, spatial urban environment and the resident social groups. To comprehend the complex behaviour of pollution in the city, IIIT-D is organising a workshop on air quality sensors, their usage and the mechanism to collect the data.

Okhla is a planned industrial area and its proximity to other industrial areas such as (Faridabad, Badarpur Ghaziabad) makes it an ideal site to study. Within Okhla, three diverse locations have been identified based on their spatial location and social groups.

- 1. Sanjay Colony:** This colony is located in Okhla phase II and is regarded as a slum that is surrounded by two industrial areas. Most of the people living here are working in the industrial units and factories nearby. The most common lines of occupation among the earning population are contracted export jobs, scrap dealing, shopkeeping, tailoring and factory labour.
- 2. Tekhand:** The village of Tekhand is one of the highly clustered yet unregulated and marginalized villages in South Delhi. The area has a considerable local population that was previously engaged in dairy farming. The emissions from landfill, inland containers and the Tughlakabad railway station contribute to the higher levels of air pollution in the area. The unplanned and highly polluted site thus becomes an interesting area to study the impact of pollution which is exacerbated by the population influx and the pollution emanating from the industries in the Okhla phase I.
- 3. Shaheen Bagh:** The proximity of the Okhla municipal waste incinerator plant of the Timarpur-Okhla Waste Management adds to the air pollution in this neighbourhood. The presence of restaurants and other informal businesses contributes to making air quality miserable. The social composition of the area constitutes university students, small scale business classes, workers who are engaged in service-based employment in Noida etc.

Najafgarh is a growing peripheral town surrounded by agricultural land and mixed land use which seems comparatively less polluted but surprisingly not.

The following locations had been finalised.

- 1. Near Najafgarh Terminal:** It is located at the core of Najafgarh town over the busiest road, surrounded by mixed land use and diverse population and commuters (labourers, daily wage workers, students, office workers, street-side vendors etc).
- 2. Nangli Dairy:** The Dairy is situated in Nangli Sakrawati village on the outskirts of Najafgarh, and it is an interesting place in itself. It would be great to understand how the dairy industry affects the local air quality. There is also a small-scale industrial area (NSSSIA) adjacent to the dairy.
- 3. Jai Vihar:** It is one of the unauthorised colonies of Najafgarh and has proximity to a wastewater drain. The demography is mixed, there is an Airforce Camp nearby so people from defence own houses, and live on rent. As the town is growing, there is a notable population of labourers who worked in nearby factories, construction sites etc.

For Registrations, please RSVP ruchi.18@stu.aud.ac.in or muzamilyaqoob5@gmail.com

Alternatively, you can register online through filling this [Google form](#).