

Air Sensors International Community: Ghana Conference

Focusing on the Basics

The challenge:

At present, on the Africa continent, there are very limited reference grade monitoring stations to track air pollution levels and sources in majority of the countries. Small low-cost air sensor networks must therefore be established to better understand the pollution concentration levels in regions and cities to influence air quality improvements.

Specific needs in the region include:

- Understanding how to interpret and use air quality data
- Expanding awareness among City Managers on aspects such as sensor selection, siting, maintenance.
- Availability of data use cases to help cities/communities understand the role low-cost sensors can play
- Developing standardized open data policies and data assimilation protocols/guidelines
- Standard methods and training for communities to calibrate sensors and evaluate/interpret data.

The aim of the conference is to bring together the sensor community to address these issues.

Audience

- **Researchers**
- Community Scientists
- Advocacy Groups
- **Policy Makers**
- **Air Quality Managers**
- **Journalists**
- International Funding and Research Organizations
- Metropolitan/Municipal Environmental Health Officers

Vision & Purpose

To improve air quality by teaching communities, city managers, environmental health officers, industry developers and regulators, how to effectively use air quality sensors and the data produced to be able to understand the heavy health and economic cost of air pollution to create massive changes in regulatory and personal actions that significantly influence air pollution levels. This conference will encourage the development of enhanced air quality management systems through open discussion of local issues and exposure to the latest air quality sensor technology.

Goals & Outcomes

This 2.5-day conference will strengthen capacity among all participants on the fundamentals of air quality sensors, highlight the achievements in low-cost sensor use for air quality in Africa and equip various users with tools and trainings to effectively use small, low-cost sensors for air quality improvement within African countries. Through the conference, we aim to:

1. Facilitate a dialogue between researchers, communities, industry members, city managers, and regulators on the topic of low-cost sensor use in Africa.
2. Improve understanding of air pollution's effects on personal health among communities, city managers and regulators; highlight the impacts on the economy and the climate.
3. Expand technical know-how among key audiences on the use of applications of sensor data, including:
 - A- All: fundamentals of low-costs sensors: what they are, how they differ from regulatory-grade monitors, how to choose one for each situation, and how to effectively use and maintain the sensors
 - B- Sensor network developers: how to develop and maintain networks by discussing pilot studies and highlighting effective long term operational networks.
 - C- Researchers and regulators: how to evaluate low-cost sensor data and use it to effectively spur policy actions or test effectiveness of interventions

Planning Support: Contact Conference Organizer, Sandra Hall (sehall@ucdavis.edu) with inquiries.

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