



Contribution ID: 211

Type: **Poster Presentation**

Low-budget atmospheric monitoring system.

Thursday, 6 July 2023 17:20 (20 minutes)

General systems to monitor the atmospheric condition, such as humidity, temperature, and pollution are extensively used in research and also even for public health purposes. In terms of pollution, the atmospheric analysis can be performed by LIDAR, a local measuring station, or a balloon-based sensor.

The atmospheric sensor proposed aims to be a payload for a balloon or drone. As with other atmospheric sensors, the proposed system includes sensors, a Global Positioning System (GPS), and a radio transmitter to receive data about the position of the station and the data collected by the sensors. The aim of the project is to be a system that is easy to modify and to be able to be adapted to the research needs. For this purpose, the system is entirely based on open-source electronics, except for some sensitive parts, such as the transmitter.

Apply to be considered for a student ; award (Yes / No)?

No

Level for award;(Hons, MSc, PhD, N/A)?

N/A

Consent on use of personal information: Abstract Submission

Primary author: Dr MARIOLA, Marco (University Of Kwazulu Natal)

Co-authors: Ms KWANELE, Mazibuko (University of KwaZulu-Natal); Prof. SIVAKUMAR VENKATARAMAN, Venkataraman (University of KwaZulu-Natal)

Presenter: Dr MARIOLA, Marco (University Of Kwazulu Natal)

Session Classification: Poster Session 2

Track Classification: Track F - Applied Physics