# Abstract

To design and develop a pollution monitoring module. The module will be plug and play type that can be fitted in any quadcopter. The system will be focused to be lightweight incorporating 7 pollutants detecting sensors (PM 2.5, PM 10, CO, NO2, SO2, O3, and NH3). With the aim to reduce data collection time, thus increasing the number of data collected per flight.

Along with the module, we aim to develop an ML model that recommends the path of flight and points at which data should be collected depending upon the area to be covered and the flight time of the drone.

## Challenges to be Solved

- Create an efficient and lightweight system
- Reduce the data collection time
- Develop an easily attachable module
- Develop an algorithm to record data
- To optimize the flight path of the drone for data collection