Scope Of Work

ATMO-Smart :-P2

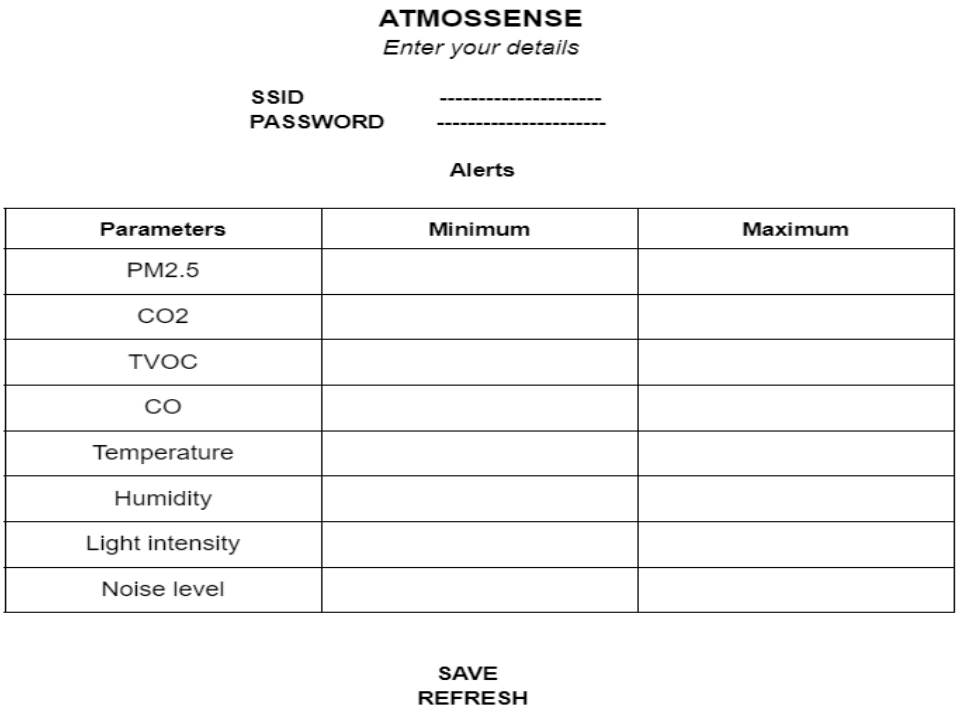
ATMO-Smart measures parameters such as PM2.5, PM10, Carbon Monoxide (CO), Carbon Dioxide (CO2), TVOCs, Temperature, and Humidity. Therefore, by deploying ATMO-Smart we focus on AQI monitoring.

Technical Specifications:

Parameters	PM10, PM2.5 & PM1, Temperature, Humidity,light intensity,Noise level
Optional Parameters	CO2, TVOC,CO
Battery	5000 mAh 12V Lithium ion battery
Display:	Cloud based Dashboard on Tablet
Power Supply & Adapter	Input: 220V, Output: 12V
Storage	MicroSD
Communication	WiFi plus GPS for Geo-time tagged Latitude - Longitude data.

Required Features:

1. Updating Wi-Fi Credentials via a html webpage.



ATMOSSENSE

Enter your details

SSID ----------
PASSWORD ----------

Alerts

Parameters	Minimum	Maximum
PM2.5		
CO2		
TVOC		
CO		
Temperature		
Humidity		
Light intensity		
Noise level		

SAVE
REFRESH

2. It will save the Wi-Fi credentials & alerts data to its internal memory.
3. Alerts will be shown on the device as LED glow.
4. Collect all Sensors data & Save in SD Card
5. One week data storage (measurements in one minute-intervals)
6. Send Data file to cloud on real time basis having 15 minutes average values
7. Data format: Device Geo tagging , Parameter, Date from, Date to,
8. Communication with Cloud via MQTT
9. cloud storage, dashboard, alerts, reports, data exports, data access control, REST API
10. Cloud access: customizable admin and user role configurations.
11. Backup battery (3 hours)

Future Scope:

- ☐ Automation of HVAC

Sensor Specification:-

Parameters Name	Parameter Abbreviations	Unit	Conversion factors at 25°C	Sensor Name with range
Temperature	Temp	°C		HTU21D -40 to +125 °C
Humidity	RH	%		HTU21D 0-100%RH
Carbon Monoxide	CO	mg/m3	1ppm=1.145 mg/m3	CO Module ZE03 0-1000 ppm
Particulate Matter less than	PM10 ,2.5,1	µg/rn3		Winsen ZH06 Laser Dust Sensor 0-1000 ug/m3
Carbon Dioxide	CO2	mg/m3	1ppm=1.8mg/m3	MH-Z16 NDIR CO2 Sensor 0-2000 PPM
TVOC	Resistance Measurement Range	ppm	1ppm=0.5mg/m3 10mg/m3 equals approximately 5ppm	ZMOD4410 0-1000 ppm Ethanol in air