DATE:25th October 2023

PROJECT ID:Proj_223338_Team_4

PROJECT NAME: **NOISE POLLUTION MONITORING.**

I)AI:

AI-based noise cancellation, such as Krisp's Noise Cancellation, also referred to as AI-powered noise reduction or AI-enhanced noise suppression, utilizes AI algorithms to reduce or eliminate unwanted noise from audio signals in real time.

It definitely works wonders when it comes to cancelling common background sounds that may disturb your discord chats and hamper your overall gaming experience

In conclusion, both Active Noise Cancellation technologies and AI-based noise cancellation algorithms are effective solutions for tackling noise pollution.

Active noise cancelling headphones are most useful for removing constant noise from lower ranges, like white noise and other low-frequency sounds. It's helpful in muting sounds like airplane engine noise, traffic, any constant humming, and even some human chatter.

II)ADS:

Ambient noise standards were notified in 1989, which formed the basis for State Pollution Control Boards to initiate action against violating sources.The vehicular noise standards, notified in 1990, are being implemented by Ministry of Science and Technology, to reduce traffic noise.

Silence is golden; maintain the silence. The more sound you hear, the faster you will lose your ears. Be sound, and do not pollute the environment. Stop noise pollution so you can still enjoy music.

We have two ears only: keep them safe, reduce noise pollution! Ii) Your music may be someone else's noise: keep the volume down, reduce sound pollution!

The objective of a noise monitor is to provide data regarding the level of noise in a location so that it may be compared to the established noise limits.

III)DAC:

Industrial areas, the permissible limit is 75 dB for daytime and 70 dB at night. In commercial areas, it is 65 dB and 55 dB, while in residential areas it is 55 dB and 45 dB during daytime and night respectively.

If we're talking about sounds within the human hearing frequency range (between 20 and 20,000 Hz), high-intensity sounds above 150 decibels can burst your eardrums, while sounds above 185 dB can impact your inner organs and cause death.

The DAC volume doesn't Impact the background noise. With the monitors, everything is using the same power strip as a desktop. In the other set.

IV)IOT:

To reduce the noise pollution from industrial area the use of IoT technique is presented in this paper. Using the noise sensors, the noise intensity is determined at that area and processed this signal and transferred it to the microcontroller.

System uses air sensors to sense presence of harmful gases/compounds in the air and constantly transmit this data to microcontroller. Also system keeps measuring sound level and reports it to the online server over IOT. The sensors interact with microcontroller which processes this data and transmits it over internet.

An IoT-based air and sound pollution monitoring system is implemented using a network of sensors, connectivity technologies, and data analytics platforms. Air quality sensors are deployed In strategic locations to measure pollutant levels such as particulate matter, gases, and volatile organic compounds (VOCs).

IoT devices, such as air quality sensors, can monitor pollutant levels in various environments, including cities, industries, and homes. This data can be analyzed to identify pollution sources, implement targeted mitigation strategies, and track the effectiveness of pollution control measures.

V)CAD:

This first segment provides an overview of sensors used in applications requiring sound. Sensors that detect sound or "hear" are simply microphones.

Erect enclosures around machines to reduce the amount of noise emitted into the workplace or environment.

Use barriers and screens to block the direct path of sound.

Position noise sources further away from workers.

An ultrasonic sensor is an instrument that measures the distance to an object using ultrasonic sound waves. An ultrasonic sensor uses a transducer to send and receive ultrasonic pulses that relay back information about an object's proximity.

The correct answer is Decibel. Noise pollution is measured in decibels (dB) with reference to a standard sound intensity of the following magnitude 1 pico watt per m2. The World Health Organization (WHO) defines noise above 65 decibels (dB) as noise pollution.