

# NOISE POLLUTION MONITORING

## Innovation on Noise reduction :

To reduce a noise that causes high noise pollution by a vehicles in metropolitan area.

This cause a high pressure to humman being normally.so we can reduce this by **Anti Noise** .

This method is implemented by **Antinoise cancellation method** .



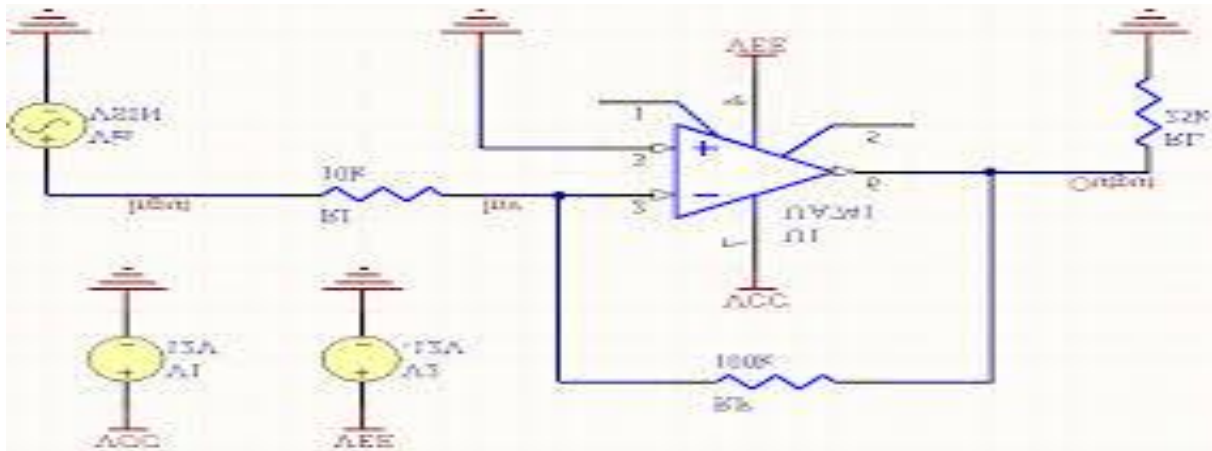
## Process of NOISE CANCELLATION :

The Noise sensor module can accurately measure the noise levels in the ambient air. The lightweight sound level monitor design is capable of monitoring the ambient noise on a real-time basis.

The advanced support electronics of this sensor makes it compact and reliable. The low noise electronics allows stable and reliable measurement of the ambient sound level. This sound level meter provides a direct reading of sound level in decibels (dB).



This sound level module works on the principle of capacitance. It provides a uniform response to sounds arriving from different angles simultaneously.



### Device used to detect sounds:

Most of the device are used to measure the noise that can be audible to humman or not

audible.



They measure the dB by their strength.

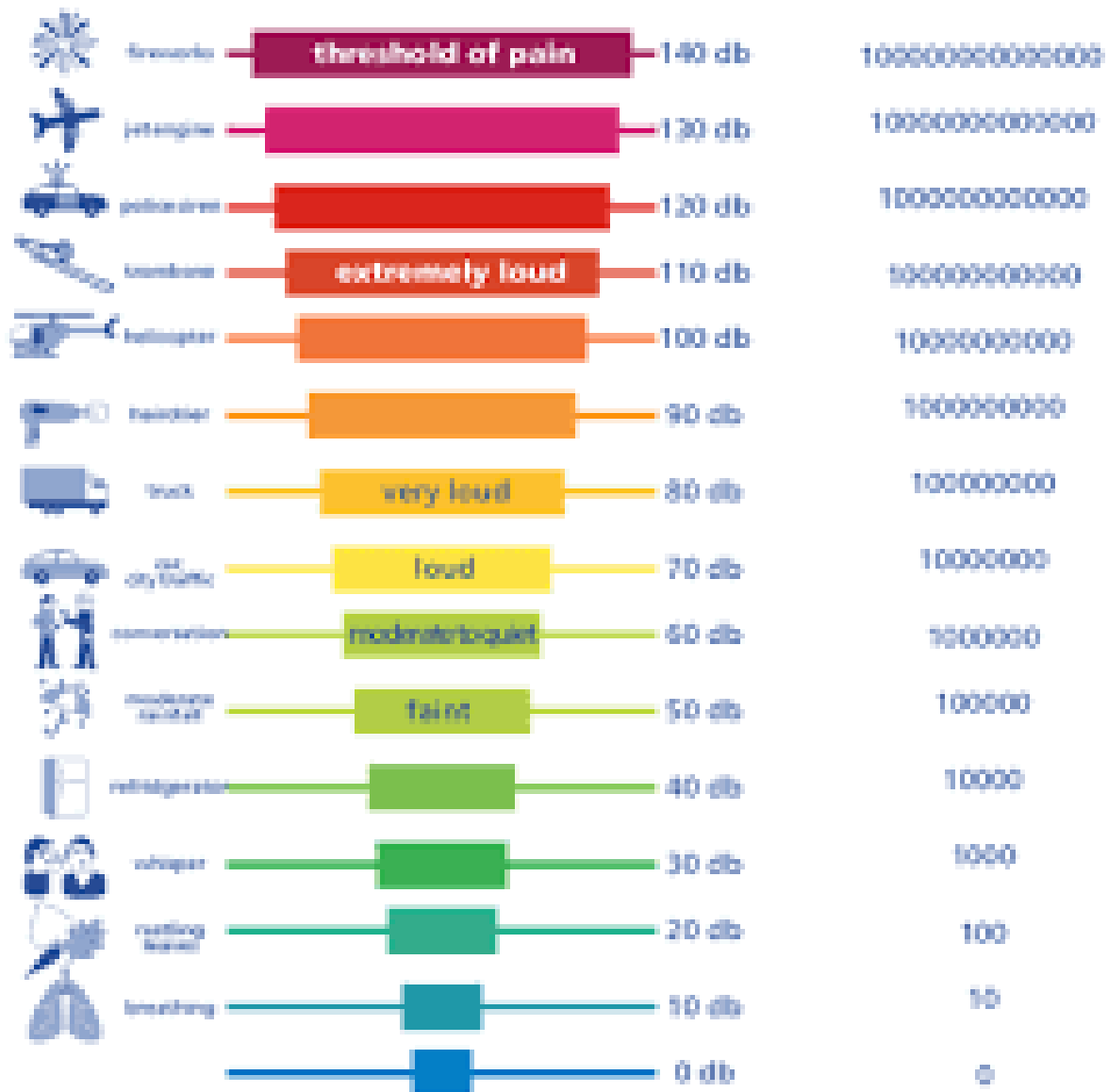


## **Noise varies from it's dB:**

Noise varies by different dB level.

By this various noise causes a pollution.





## Noise cancellation:

The noise were cancelled by Antinoise.

This can use effectively in metropolitan area to overcome from noise pollution.

This make noise level low and keep the humans very calm and relax.



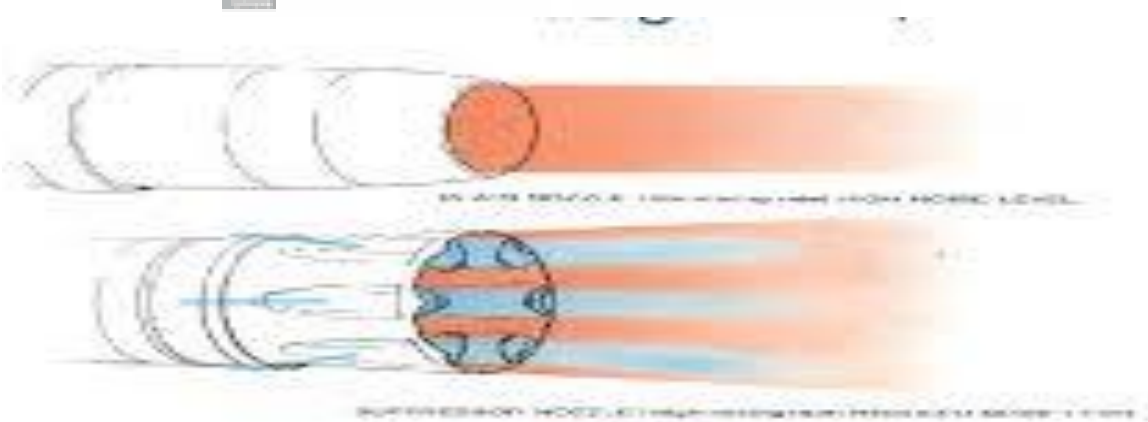
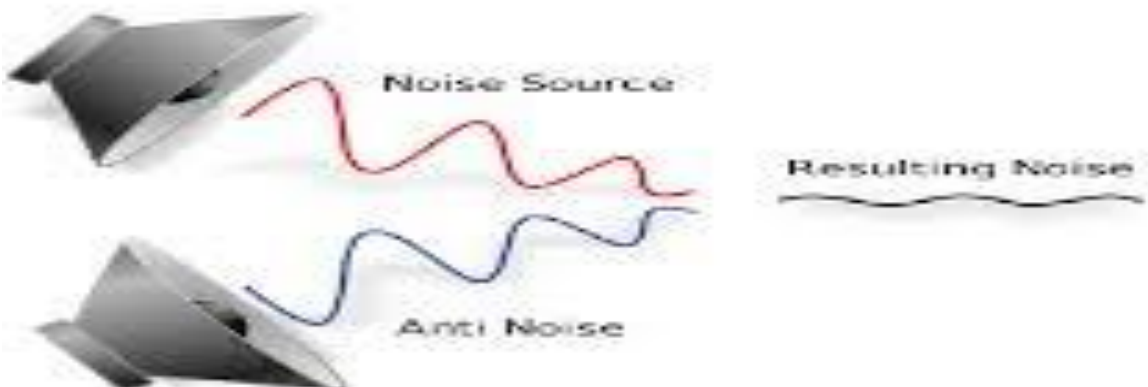


Figure 4: Noodle Jet flow.



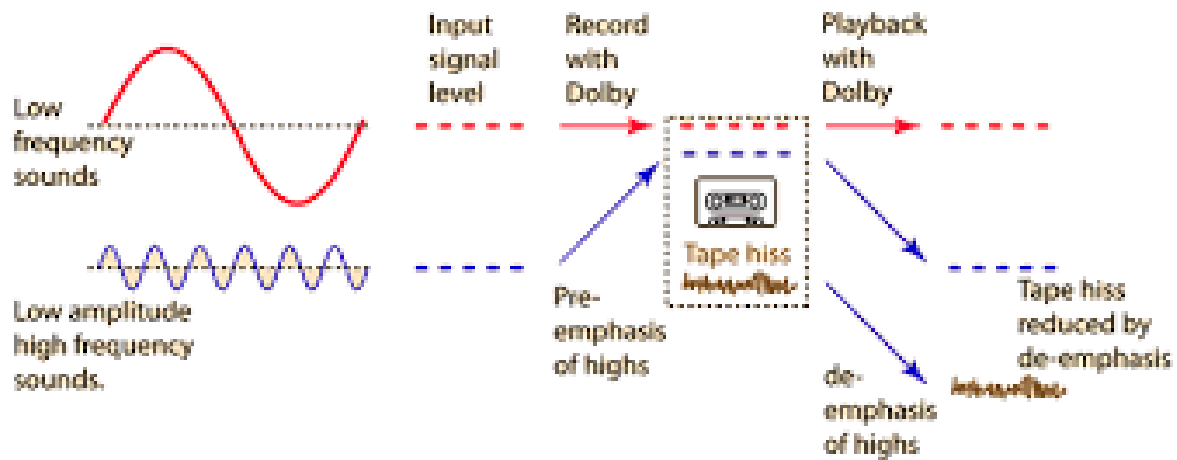
We present an anti-noise  $\phi$ -optical time-domain reflectometer-based distributed acoustic sensing system that can effectively differentiate noise and interference for high-speed railway intrusion detection.

A distributed acoustic sensing interrogator unit, based on digital heterodyne detection, was deployed in a real field railway station and three types of intrusion signals were collected, including wall climbing, wall breaking, and barbed wire crossing.

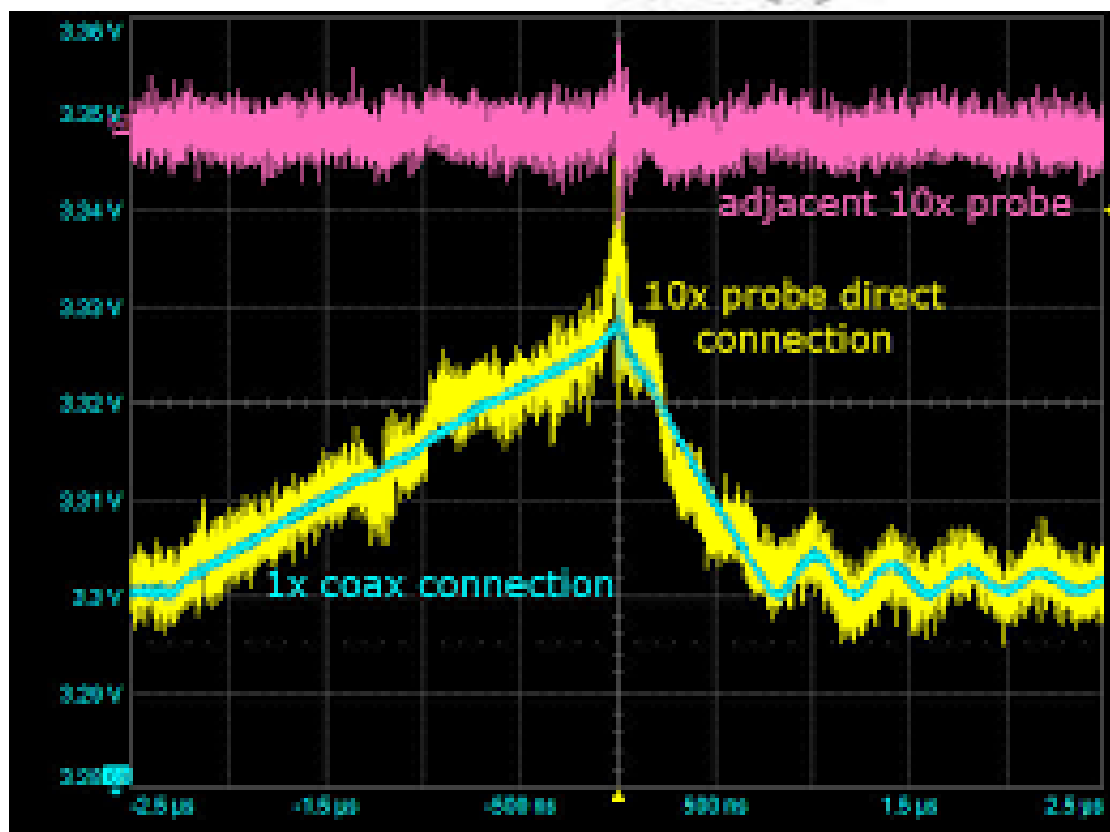
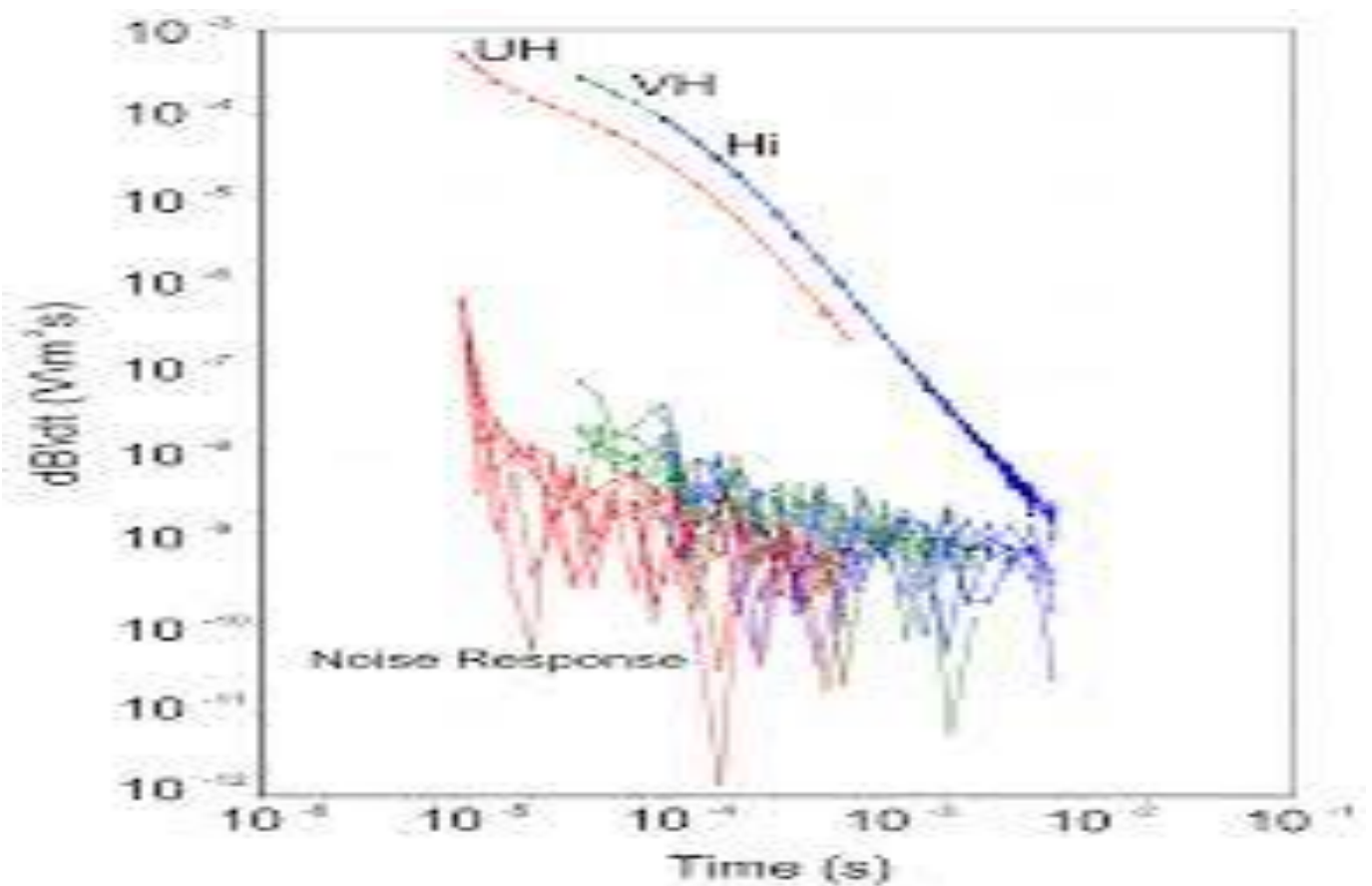
Sensing signals were analyzed and identified by a comprehensive deep model which consisted of a temporal relation extraction module and a spatial feature encoding module.

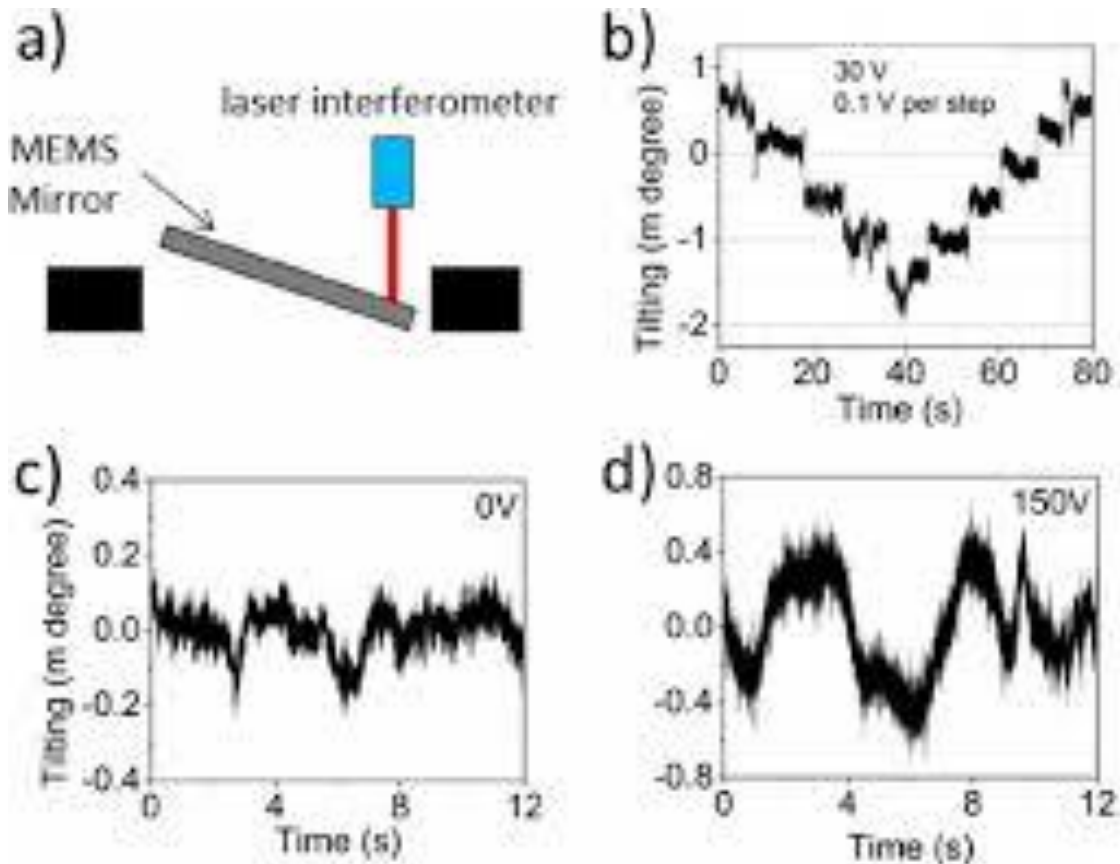
A novel hierarchical structure of the convolutional long short-term memory network was designed for temporal pattern analysis and

spatial features were extracted by a convolution neural network.



## Circuit diagram of Antinoise technology





The representation of Noise cancellation to reduce the noise happens at the large congestion area.