



TITIE : NOISE POLLUTION MONITORING

**Submitted by: Vnotha A
Nithyapriya D
Vasuki M
Arthi R**

**Name of the institution: Ganesh
college of engineering**

**Address of the institution:
Ganesh college of engineering
Attur main road,
Mettupatti(po) valapady(Tk)
Salem Dt**

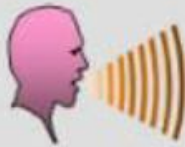
District:salem

State:Tamilnadu

pincode:636111

Noise Environment

- ❖ An undesirable and unwanted sound and a byproduct of modern “mechanised” lifestyle
- ❖ It affects human health and well-being and deteriorates environmental quality
 - ❖ Noise levels around project site



- ❖ Prediction of noise levels at
 - ❖ residential
 - ❖ commercial
 - ❖ industrial zones
- ❖ Mitigation measures

Effects of Noise Pollution

- ❖ Temporary Threshold Shift, (TTS) 80 dB(A) to 130 dB(A)
(Temporary hearing loss)
- ❖ Permanent Threshold Shift > 150 dB(A)
(Permanent hearing loss)



Integrated Sound Level Meter



MEASUREMENT OF NOISE QUALITY

Noise measurements were carried out to study the hourly equivalent noise levels as per IS: 4594-1968. Noise levels were measured for 24 hours on hourly basis by using a high precision Integrated Sound Level Meter (B&K 2238) in the study area. The noise is expressed in dB (A).

What is noise pollution?

- Production of unwanted sounds that are annoying, distracting and causes irritation to one's ears which comes from an external source.
- Sound becomes undesirable when it disturbs the normal activities.
- World Health Organization stated that "noise must be recognized as a major threat to human well-being."

Sources, Types, measurement and indices

- Major sources of noise are:
- Traffic junctions
- Railways
- Construction works
- Industrial productions
- Aircraft noise
- Household noise (Grinder, Air cooler, TV sets, dance, Radio, practices etc.)
- Air conditioners
- DG Sets in Markets etc.
- Many More activities.....



Classifications of noise pollution:

- Mainly of Two types of noise pollution.

1. Community noise pollution/ Non-industrial noise pollution:

- The noise produced from non-industrial sources i.e. all possible sources which includes noise from air and road traffic, construction noise and domestic sources viz. household.
- Some of the major community noise pollution of concern are aircraft noise pollution, roadways noise pollution and underwater noise pollution.

2. Occupational/Industrial noise pollution:

- The varied sources of noise that includes industrial machinery and processes generate occupational noise pollution viz. crushing, blasting impact processes, equipment etc.

The noise levels monitoring was carried out by Central Pollution Control Board during Diwali. The noise data during 2011, 2012, 2013,2014,2015 at five places in Hyderabad city at Abids, Jeedimetla, Jubilee Hills ,Zoo Park and Punjagutta is depicted below:.



Effects on environment

- Breakage of earth barrier.
- Weakens the premises of buildings.
- Crop quality decreases.
- Marine invertebrates, such as crabs, have also been shown to be negatively affected by ship noise.
- Anthropogenic noise reduced the species richness of birds.

Control of noise pollution:

- Major control measures that are taken have been discussed.
- Control at source
- Control in transmission path
- Major noise control techniques

Control at source:

- Maintenance of automobiles.
- Use of economic instruments.
- Noise level reduction from domestic sectors.
- Machinery selection.
- Control over vibrations.
- Prohibition on use of loudspeakers.

14-15 / 17



Classifications of noise pollution:

► Mainly of Two types of noise pollution.

1. Community noise pollution/ Non-industrial noise pollution:

- The noise produced from non-industrial sources i.e. all possible sources which includes noise from air and road traffic, construction noise and domestic sources viz. household.
- Some of the major community noise pollution of concern are aircraft noise pollution, roadways noise pollution and underwater noise pollution.

2. Occupational/Industrial noise pollution:

- The varied sources of noise that includes industrial machinery and processes generate occupational noise pollution viz. crushing, blasting impact processes, equipment etc.

Measurement of noise pollution:

- A **decibel(dB)** is the main unit to measure the intensity of loudness of sound.
- Normal human ear can detect sound between 0 dB to 140 dB
- But, anything between 120 to 150 dB cause pain and problem.

Source	Decibels(dB)
Turbo jet airplane	150
Truck without muffler	90
Noisy class, alarm clock, police whistle	80
Average residence	40
Quiet room	20
Lowest audible sound	0

NOISE POLLUTION

Common Sources of Noise Pollution

