



# **SNS COLLEGE OF TECHNOLOGY**

**(An Autonomous Institution)**

**COIMBATORE-35.**



Accredited by NBA – AICTE and Accredited by NAAC – UGC with ‘A+’ Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai.

## **DEPARTMENT OF AUTOMOBILE ENGINEERING**

### **COURSE NAME : 19AU0302 - RECENT TRENDS IN AUTOMOBILES**

**III YEAR / VI SEMESTER**

**Unit 5 – Adaptive Control Systems**

**Topic : Adaptive Noise Control**



# Noise



- **Noise** is unwanted sound considered unpleasant, loud or disruptive to hearing.
- There are many different varieties of instruments that are used to measure noise





# Automotive Noise

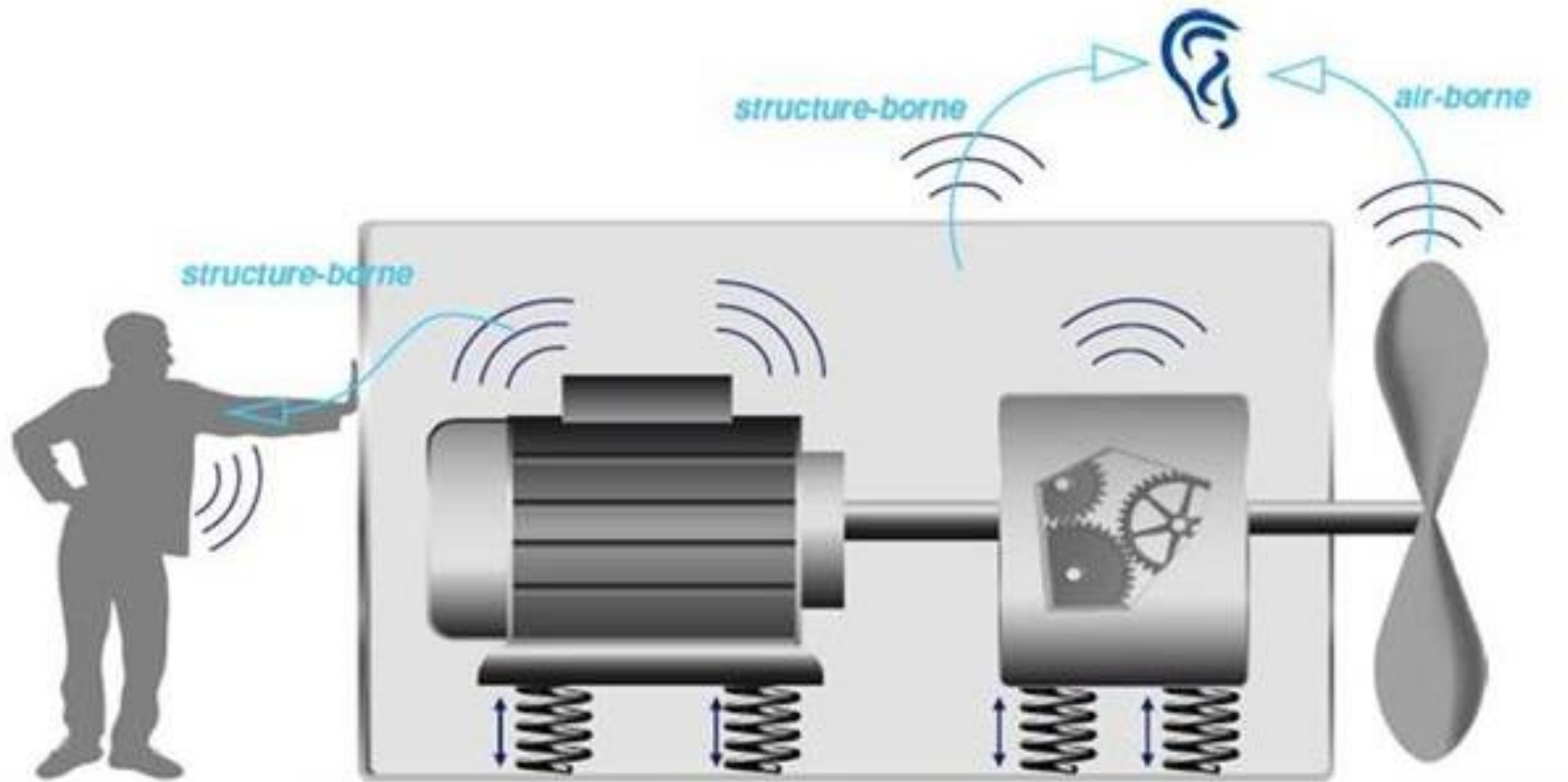


- Noise control is becoming increasingly important for a wide variety of OEM Designer.
- Some of the automotive noises are **Engine Noise, Transmission Noise, Intake and Exhaust Noise, Aerodynamic Noise, Tire Noise, Brake Noise.**





# Difference Between Airborne & Structure Borne

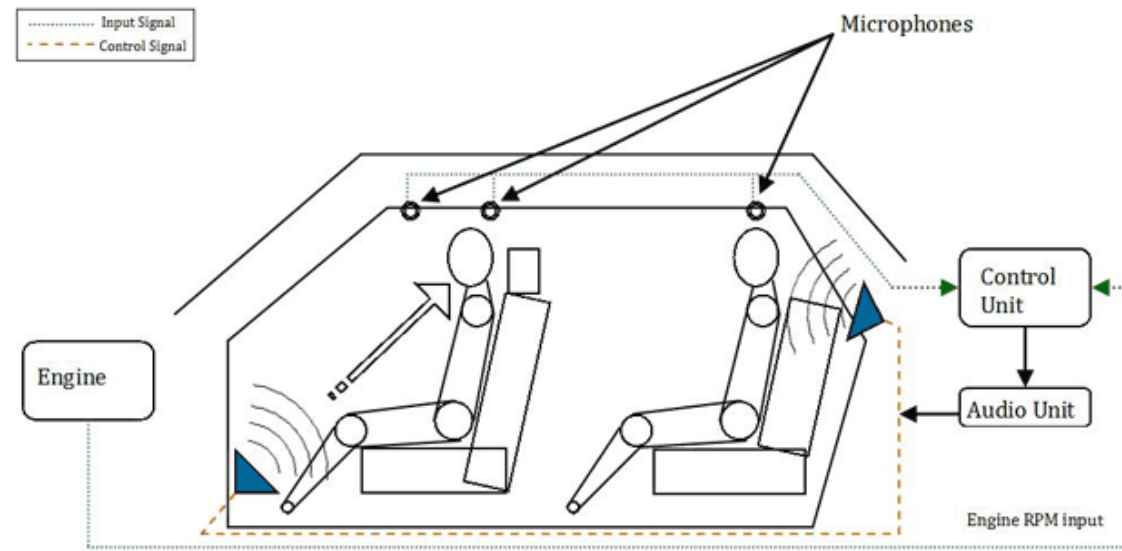




# INTRODUCTION TO ADAPTIVE NOISE CONTROL



- The principle of adaptive noise control is to cancel out the original source of noise by using sound.
- In this method the original noise is picked up by a microphone, inverted and amplified, and then replayed by a suitably located speaker. This effectively cancels out the noise.



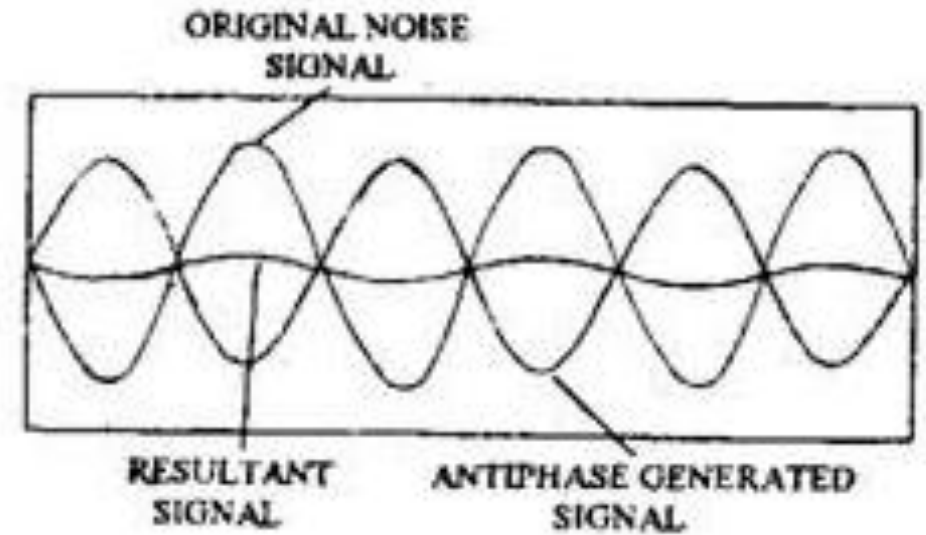
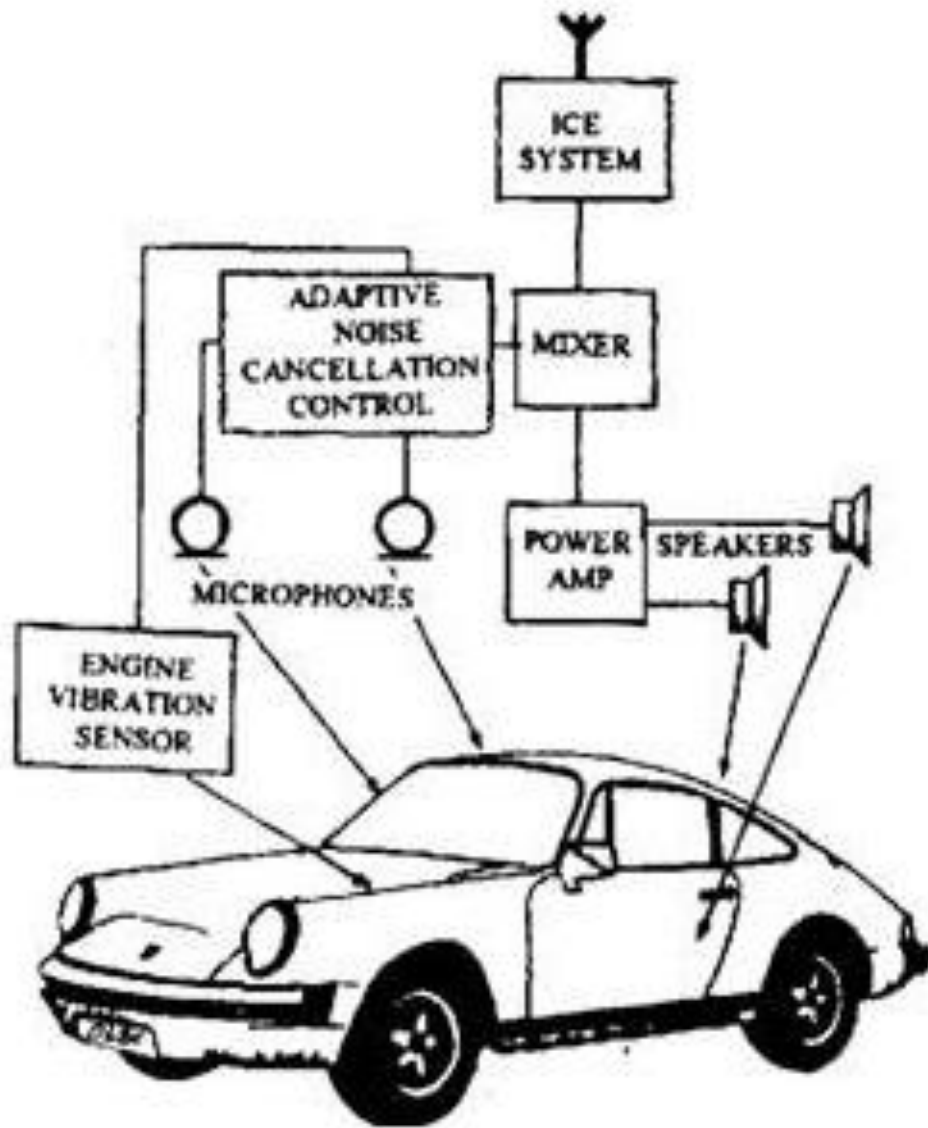


# COMPONENTS



- Microphone
- Digital Processing Unit
- Speaker







# ADVANTAGES



- Provides good comfort while driving.
- Reduces the Driver fatigue







## REFERENCE



- <http://what-when-how.com/automobile/adaptive-noise-control-automobile/>



THANK YOU !!!