



# **SNS COLLEGE OF TECHNOLOGY**

**Coimbatore-35**  
**An Autonomous Institution**

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**

**16AU408 – AUTOMOTIVE SAFETY & INFOTRONICS**

**III- YEAR    V- SEM**

**UNIT II – SAFETY CONCEPTS**

**TOPIC 2– ACTIVE SAFETY – TYPES-DRIVING SAFETY**



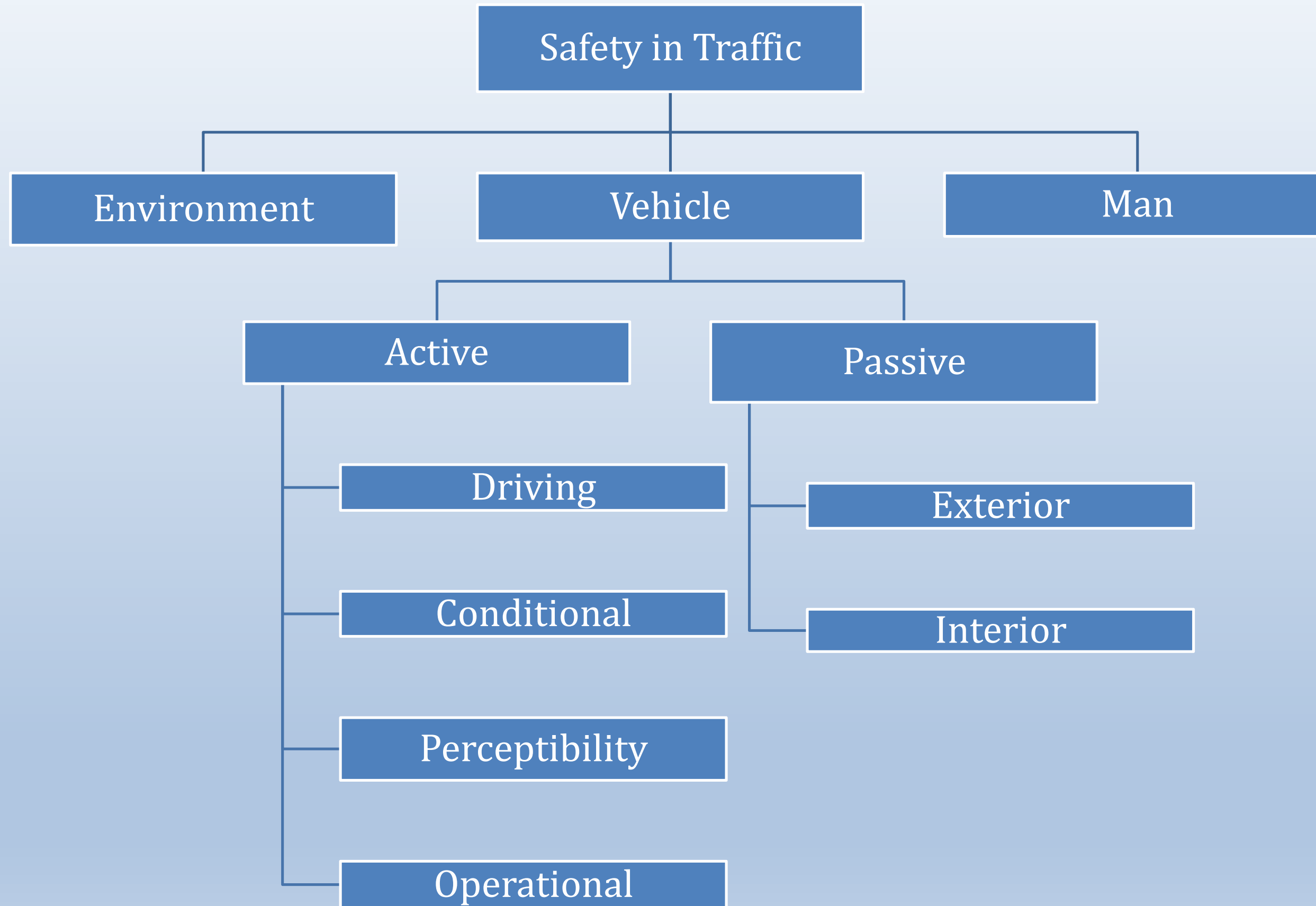
# PRESENTATION OUTLINE

- Automobile Safety Types
- Driving Safety
- Conditional Safety
- Perceptibility Safety
- Operational Safety





# AUTOMOTIVE SAFETY TYPES





# CONDITIONAL SAFETY



- Conditional safety : It is a significant factor in reducing the possibility of miss actions in traffic. their direction, amplitude and duration. sources (engine, transmission, prop shafts, axles) or external sources (tire/road noises, wind noises), and are transmitted through the air or the vehicle body.



It results from keeping the physiological stress that the vehicle occupants are subjected to by vibration, noise, and climatic conditions down to as low a level as possible. It is a significant factor in reducing the possibility of miss actions in traffic.

- Vibrations within a frequency range of 1 to 25 Hz (stuttering, shaking, etc.) induced by wheels and drive components reach the occupants of the vehicle via the body, seats and steering wheel. The effect of these vibrations is more or less pronounced, depending upon their direction, amplitude and duration.



Noises as acoustical disturbances in and around the vehicle can come from internal sources (engine, transmission, prop shafts, axles) or external sources (tire/road noises, wind noises), and are transmitted through the air or the vehicle body.



The sound pressure level is measured in dB(A) (see Motor-vehicle noise measurements and limits). Noise reduction measures are concerned on the one hand with the development of quiet-running components and the insulation of noise sources (e.g., engine encapsulation), and on the other hand with noise damping by means of insulating or anti-noise materials.





Climatic conditions inside the vehicle are primarily influenced by air temperature, air humidity, rate of airflow through the passenger compartment and air pressure (see Environmental stresses for additional information).