



SNS COLLEGE OF TECHNOLOGY  
COIMBATORE - 641 035.  
(An Autonomous Institution)



DEPARTMENT OF MECHANICAL ENGINEERING

19MEZ404-Connected and Automated Vehicles

## UNIT II CONNECTED VEHICLE INFRASTRUCTURE

traffic control, supervision of the movement of people, goods, or vehicles to ensure efficiency and safety.

Traffic is the movement of people and goods from one location to another. The movement typically occurs along a specific facility or pathway that can be called a guideway. It may be a physical guideway, as in the case of a railroad, or it may be an agreed-upon or designated route, marked either electronically (as in aviation) or geographically (as in the maritime industry). Movement—excepting pedestrian movement, which only requires human power—involves a vehicle of some type that can serve for people, goods, or both. Vehicle types, often referred to as modes of transportation, can be broadly characterized as road, rail, air, and maritime (*i.e.*, water-based).

Traffic evolves because of a need to move people and goods from one location to another. As such, the movement is initiated because of decisions made by people to transport themselves or others from one location to another to participate in activities at that second location or to move goods to a location where they have higher value. Traffic flows thus differ fundamentally from other areas of engineering and the physical sciences (such as the movement of electrons in a wire), because they are primarily governed and determined by laws of human behaviour. While physical attributes are critical in the operation of all modes (*e.g.*, to keep airplanes in the air), the demand or need to travel that gives rise to traffic is derived from the desire to change locations.