

Transportation Engineering-1

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Elements of Traffic Engineering and Traffic Control

Def: Traffic Engineering

- Traffic engineering is that branch of engineering which deals with **planning and geometric design of streets, highway, abutting lands, and operating traffic systems to achieve safe, economical, convenient and efficient movement of persons and goods.**
- Object of Traffic Engineering:
- To achieve free and rapid flow of traffic with least number of traffic accident.
- **Factors affecting Traffic:**
- The Roaduser
- The Vehicle
- The Roadway
- The environment

Drivers of various types of vehicles and pedestrians are known as road user. They are human being, hence affected by so many factors.

Elements of Traffic Engineering and Traffic Control

Vehicles are classified as:

- Motorised
- Non-Motarised
- Vehicular characteristics
- **The roadways type**, riding quality, maintenance, surface, texture, light, reflection/ absorption, friction, drainage, weather resistance etc. are influencing the traffic.
- The **environment** considers for temperature, heat, cold, fog, mist, rainfall etc.
and their effects on traffic operation and human being.

Major Sections of Traffic Engineering

Elements of Traffic Engineering:

- Traffic characteristics
- Traffic studies and analysis- Traffic survey
- Traffic operation- Control and regulation-TCD
- Planning and analysis
- Geometric design
- Traffic Management and Administration

Traffic Characteristics

- Roaduser Characteristics
- Vehicular Characteristics