IoT Based Traffic Management System

A Project report submitted in partial fulfilment of the requirements for the degree of B.E in Computer Science and Engineering.

By

K. RANJANI (513221104021)

Under the supervision of

Professor & HOD

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Thirumalai Engineering college

TRAFFIC MANAGEMENT

PROBLEM STATEMENT

- Define the problem of traffic management that your project aims to address
- Provide relevant statistics and data to emphasize the significance of this issue
- Explain the current changelings and shortcomings in existing traffic management systems
- Traffic congestion problems consists of incremental delay, vehicle operating costs such as fuel consumption, pollution emissions.
- The result form interference among vehicles in traffic stream, particularly as traffic volumes approach a roads capacity.

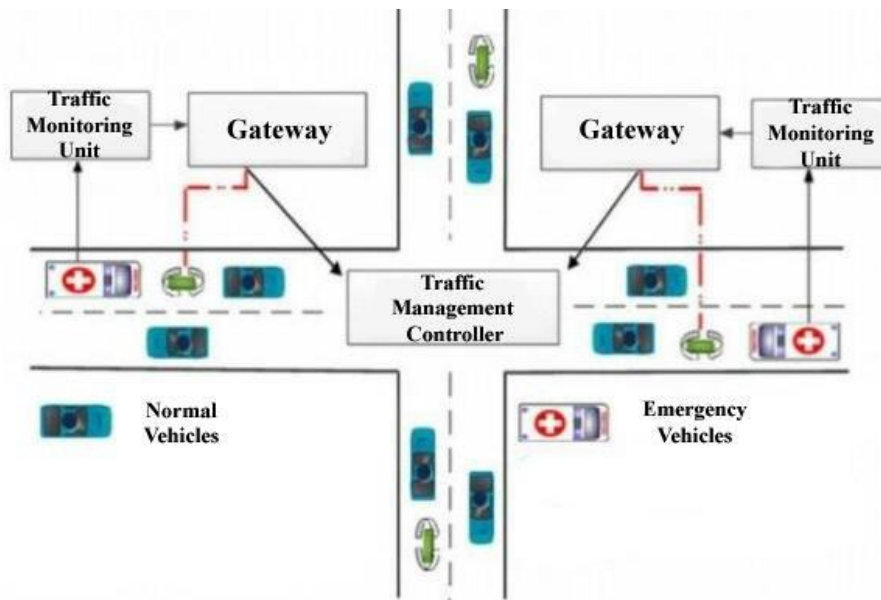Figure 3(a): breaking of signals   Figure 3(b): traffic congestion   Figure 3(c): disobeying of traffic rules

DESIGN THINKING

- define the specific traffic-related problems or challenges based on the insights gained during the empathy stage.
- Create personas or user profiles to represent the different types of users and their needs.
- Frame the problem as a user-centred design challenge.
- Empathize
- Understand the needs, behaviours, and pain points of various stakeholders, including drivers, pedestrians, cyclists, public transport users, and local residents.
- Ideate
- Generate a wide range of creative ideas and potential solutions to address the defined problems. Encourage brainstorming and ideation sessions involving diverse stakeholders.
- When applying design thinking to traffic management, the focus is on understanding and addressing the needs and challenges of both road users and the community as a whole.

FLOW CHART

Zero Level DFD - Traffic Monitoring System