

Centralized Traffic Controller

B.Tech 6th Semester Computer Science & Engineering
CS16L2 Mini Project
Model Engineering College, Thrikkakara
Group - 6

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Introduction

- ▶ This project is intended to ease the lives of everyday commuters.
- ▶ Effective traffic management reduces congestion and eliminates unnecessary delays.

Fixed-Time Traffic Controller

Merits

- ▶ Easy to implement
- ▶ Cost-Effective
- ▶ Suitable for predictable traffic

Demerits

- ▶ Rigid
- ▶ Atomicity of each signal

Problem Statement

- ▶ Inefficient traffic management due to the fixed time control system leads to unnecessary delays and frustration.

Proposed Solution

- ▶ Dynamically changing signal timings according to the density of the vehicles implementing image processing and deriving an appropriate scheduling algorithm.
- ▶ Alleviate traffic congestion by analysing density across the entire traffic network and modifying the algorithm accordingly.

Hardware & Software Requirements

Hardware

- ▶ Computer
- ▶ Camera
- ▶ LED
- ▶ Miniature Model

Software

- ▶ OpenCV
- ▶ Python
- ▶ MySQL

Work Schedule

