**ABOUT THE PROJECT**

The rapid urbanization and increasing vehicle population present a significant

challenge to urban traffic management, leading to congestion, delays, and

environmental concerns. In response to this growing issue, the proposed research

introduces a cutting-edge solution utilizing machine learning technologies to

enhance traffic flow and optimize signal timings. By employing Support Vector

Machine (SVM) for traffic density classification and You Only Look Once

(YOLO) for real-time emergency vehicle detection, the system offers a dynamic

approach to intelligent traffic control. The project integrates multi-task learning

techniques to simultaneously manage traffic light adjustments based on vehicle

density and emergency vehicle presence. Additionally, a web-based dashboard

provides real-time monitoring and control over traffic simulations, offering an

intuitive interface for users. Through the integration of these advanced

technologies, this research aims to revolutionize traffic management systems,

reduce congestion, improve urban mobility, and contribute to safer and more

efficient cities.

**HOW TO RUN THE PROJECT**

* Extract the file from git
* Download and save the files as per the given name in VS Code
* Run the project