

INNOVATION OF TRAFFIC MANAGEMENT SYSTEM USING IOT

This research proposes an IoT based system model to collect, process, and store real-time traffic data.

The objective is to provide real-time traffic updates on traffic congestion and unusual traffic incidents through roadside message units.

The early-warning messages will help citizens to save their time, especially during peak hours.

The experiments results show good accuracy in vehicle detection and a low relative error.

Additional details

A significant amount of research work carried out on traffic management systems, but intelligent traffic monitoring is still an active research topic due to the emerging technologies such as the Internet of Things (IoT) . The integration of these technologies will facilitate the techniques for better decision making and achieve urban growth. However, the existing traffic prediction methods mostly dedicated to highway and urban traffic management, and limited studies focused on collector roads and closed campuses. Besides, reaching out to the public, and establishing active connections to assist them in decision-making is challenging when the users are not equipped with any smart devices. This research proposes an IoT based system model to collect, process, and store real-time traffic data for such a scenario. The objective is to provide real-time traffic updates on traffic congestion and unusual traffic incidents through roadside message units and thereby improve mobility. These early-warning messages will help citizens to save their time, especially during peak hours. Also, the system broadcasts the traffic updates from the administrative authorities.