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TRAFFIC SIGNAL PREEMPTION FOR EMERGENCY VEHICLES

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Abstract

In today's day and age, cars have become a daily necessity and the chief mode of transport for the majority of the people, especially the working class city dwellers. Over the past few years motor vehicles have become cheaper, fuel efficient and easily accessible, hence become a much needed utility. The number of cars owned per family in India has increased, thereby increasing the amount of traffic that threads the city streets. Even-though, new roads-ways are being built every day through the country, traffic jams in intersections don't seem to reduce. Directing traffic has become one of the major concerns for the common man and more so for hospitals, police officers and fire fighters in the cities. Numerous case have emerged regarding delay in rescue operations due to intense traffic jams. The following paper discusses this issue and proposes an alternative to the currently established system of preprogrammed traffic lights in Indian cities. This project makes use of an RF transmitter-receiver module and a Zigbee transmitter-receiver along with Atmega 328 ICs to demonstrate the concept. This system enables Emergency vehicles (e.g. Fire-trucks, Police Cars, Ambulances) to override the current traffic sequence and reach its destination uninterrupted. The entire system depends on the communication between the Emergency Vehicles (EV) and the traffic signals.

Author Keywords

Emergency Vehicles (EV), preprogrammed traffic lights, fuel efficient and easily accessible

Index Keywords

Chief mode of transport, RF transmitter-receiver module, Emergency vehicles

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