GSM BASED EMERGENCY VEHICLE TRAFFIC CONTROL SYSTEM

Final Year Project Report

By

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Abstract

The emergency vehicle movement has always been a serious issue in traffic control management. As if an ambulance is on the move it may face traffic congestions on the roads, especially on the signals. To allow a free passage to the vehicle, traffic wardens manually control the traffic and guide that vehicle toward its destination. The proposed system can electronically guide the vehicle by controlling traffic lights. The system consists of a Control Unit which has the capability of sending control instructions to the traffic lights via GSM network.

When a vehicle starts its journey it extracts its current coordinates from the connected GPS (Global Positioning System) device and provides it the CU along with the desired destination location's information by sending a SMS (Short Message Service). The CU then interprets the SMS and according to the received information it sends SMS's to the traffic lights standing along its route. It also calculates the arrival time of the vehicle and sends it to the respective traffic signal. The microcontroller at the traffic signal then interprets instructions from the CU and according to those instructions controls traffic lights, creating a free passage for the vehicle. It also displays the received arrival time information. When the vehicle has passed that signal the CU then sends control information to the next signal which also establishes a free passage and this process is continued until the vehicle reaches its desired destination. By using the proposed system the excessive burden on the traffic wardens as well as the time consumption for evacuating passage for such emergency vehicles can be efficiently

reduced.

Dedication

Dedicated to our parents who believe in us and support us in every walk of life. To our teachers who have been a source of encouragement for us, throughout the degree, who enlightened our minds with their experience and knowledge, and helped us transforming our dreams into reality.

Acknowledgement

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