THIS PAGE IS SECURE

Ingenious Traffic Control System with Green Signal Timings Using Image Processing

Authors: Ganesh, Venkateshwaran; Sujatha, C.
Source: Advanced Science, Engineering and Medicine, Volume 12, Number 3, March 2020, pp. 337-341(5)
Publisher: American Scientific Publishers
DOI: https://doi.org/10.1166/asem.2020.2502

9/30/21, 4:38 PM Ingenious Traffic Control System with Green Signal Timings Using ...: Ingenta Connect

In metropolis, traffic congestion affects the daily routine of passengers and in the long run there will be a declination in productivity if such situation is left unaddressed. If an Ambulance, unfortunately, stuck in the middle of congested road, any delay can endanger the life of the patient and, such cases require intelligent, powerful and reliable traffic control system. In this paper, the Infra-Red (IR) Sensors keep track of vehicle density across the lane. The micro-controller in turn, generates the control signals to alter the traffic accordingly. During each transition phase, the Voice Recognition (VR) modules installed on lanes sense the emergency siren and thus temporarily allow passage by turning the signal green for the corresponding lane, while others, being remained at red. Using Image Processing analysis, the exact count of vehicles can be visualized in the Graphical User Interface (GUI) Tool and the green light timings for the consecutive turns can be estimated.

Keywords: ATmega2560; EDGE DETECTION (IMAGE PROCESSING); GUI (GRAPHICAL USER INTERFACE); INFRA-RED (IR) SENSORS
Document Type: Research Article
Publication date: March 1, 2020
More about this publication?