Traffic Analysis using Image Processing to Alert Traffic Control

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Abstract: *In this paper, we present a scheme for traffic analysis using Image Processing to alert traffic control. In this, the vehicles are not being detected by sensors as we are detecting by images with the use of python language we are going to implement it in our project. Once image is captured from digital media, it is fed into image processing after that it detects vehicles from image using open cv libraries, after that at the end vehicles are detected on basis on vehicle count, and time will be set as per so reduce the road traffic congestion. This system contains the solution to three problems of traffic system. First one being the pre-defined set of timings set for each traffic signal despite the density circumstances. For this we have changed the signal timings. The working would be as follows, in a traffic junction of four lanes the density is measured on each lane at distance of 50 meters through the Image Processing. After that count the vehicle and turn on green light for time period deepening on vehicle count ratio. this is done so that the lane having highest density is allowed to clear the traffic first, the other lanes will be given green signal after this in a circular pattern. If in cases where the density is greater, the signal timing is increased seconds.*

Keywords: Traffic control, Computer Vision, Image Processing, Edge Detection, artificial intelligence.

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