An Efficient Algorithm for Detecting Traffic Congestion and a Framework for Smart Traffic Control System

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***Abstract*— Since the number of vehicles is increasing day by day, traffic jams are becoming a common scenario in large cities like Dhaka. These frequent traffic jams at major junctions kill a lot of man hours. Thus it creates a need for an efficient traffic management system. This paper proposes to implement a smart traffic control system which is based on the measurement of traffic density using real time video processing technique. The video sequences from a camera are analyzed using object detection and counting methods to obtain the most effective way. The computed vehicle density is compared with other parts of the traffic in order to control the traffic signal brilliantly. The system has an advantage of using RFID sensors to ensure law enforcement. Therefore, any car or vehicle which breaks the traffic rules can be easily caught. Through this paper we tried to present a progress in the existing manual traffic control system.**

***Keyword*— Intelligent Traffic Control, Object Detection, RFID, Sequential Timing Algorithm, Traffic Density, Video Processing**

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