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Dynamic Traffic Signaling System

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Abstract: The most significant issue which is being looked at by the advanced world is the traffic blockage in the City communities and towns. The system attempts to reduce the possibility of traffic jams, caused by traffic lights, to a limit. The system is contingent on count of vehicles and comprises of raspberry-pi which positively analyses the situation as a result of which the traffic lights delay is alteredfor each lane. Thus, it updates distinguish ranges for traffic light delays and sets those accordingly. The cameras are placed at traffic intersections for analyzing the traffic thickness. A camera is placed along with the traffic light. It catches picture groupings. Picture handling is a pompous technique to tackle the transition of the traffic light. In presence of an emergency vehicle the red sign on the traffic signal turns green with assistance of Message Queuing Telemetry Transport (MQTT) which gives a reasonable method of convenience to crisis vehicles. This recorded vehicle count data can be used in future also to investigate traffic conditions at respective traffic lights connected to the system.For germane analysis, the record data can be downloaded via interaction between the computer and the raspberry-pi after which it will send the appropriate signal to the LED light system. In the future this technique canbe often used to enlighten individuals about traffic conditions at different locations.

Keywords: Traffic control, Raspberry Pi, Camera, Traffic light

REFERENCES

[1] S. Lokesh , T.Prahlad Reddy, "An Adaptive Traffic Control System Using Raspberry PI" IJESRT [Lokesh, 3(6): June, 2014] ISSN: 2277-9655, Scientific Journal Impact Factor: 3.449 (ISRA), Impact Factor: 1.852

[2] Vivek Tyagi, Senior Member, IEEE, Raghuram Krishnapuram, Fellow, IEEE and ShivakumarKalyanaraman, Fellow, IEEE, "Vehicular Traffic Density State Estimation on Intelligent Transportation System, Vol.23. No.3 presented in September 2012.

[3] M D. Hazrat ALI, Syuhei KUROKAWA, et al, "Autonomous Road Surveillance System presented Model For Traffic Signal Control and Vehicle Detection " in Procedia Computer Science 19(held in the year 2013"M.R. Thansekhar and N. Balaji(Eds.) a. ICIET'14 2222

[4] R. WEIL, J. WOOTTON AND A. GARCIAORTIZ" Traffic Incident Detection Sensor and Algorithms "Mathl.Comput.ModelingVol.27

[5] K.Thatsanavipas, N. Ponganunchoke, et al., "Wireless Traffic Light Controller" presented at the 2nd International Science, Social- Science, Engineering and Energy Conference held in 2010:Engineering Science and Management



527