Abstract

The traffic signals available in the present are based on the static feed of time without considering the actual available traffic. This leads to a situation where vehicles wait unnecessarily in one of the lanes while the traffic flow is not up to the considerable amount in the other lane. This paper provides a system to monitor the traffic flow automatically in traffic signals where video cameras are fixed. The time feed is made dynamic and automatic by processing the live traffic videos. The time for the signal is determined by two main factors: based on the density of the vehicles and on the number of vehicles in the lane. These inputs are given to a proposed algorithm which determines the optimal time period for the signal.

References

- Brian L. Smith, Ph. D., Assistant Professor, Department of Civil Engineering, University
of Virginia, "Camera positioning and calibration techniques for integrating traffic surveillance video systems with machine-vision vehicle detection devices." Virginia transportation research council.

- Hongzhe Han, Zhiliang Wang, Jiwei Liu, Zhengxi Li, Bin Li, and Zhongtao Han, "Adaptive Background Modeling with Shadow Suppression", Intelligent Transportation Systems, pp 720-724, IEEE 2003.


Index Terms

Computer Science Multimedia

Keywords

Dynamic Traffic Signal Prediction Density Of Vehicles Vehicular Count