

## HIGHWAYS TRAFFIC SURVEILLANCE USING INTERNET PROTOCOL CAMERAS AND OPEN SOURCE COMPUTER VISION LIBRARY

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Because of road traffic and traffic congestion, the development of traffic surveillance systems with multifunctional techniques has received increasing attention. Vehicle detection, tracking, classification and tally is extremely necessary for military, civilian and government applications, like road watching, traffic prediction, toll assortment and traffic flow. For traffic management, vehicle detection is that the vital step. This paper presents a real-time management and control system that serves to analyze road traffic using an IP camera. The programming method enforced with python artificial language with functional programming of OpenCV which could be operated under both, Windows and Linux OS. During this paper, we tend to gift cheap, transportable and Computer Vision primarily based systems for moving vehicle detection and tally. Image from video sequence is taken to observe moving vehicles. The system is enforced mistreatment OpenCV image development kits and experimental results are incontestable from video dataset. The traffic counting method has been developed by background subtraction, image filtering, image binary and segmentation ways are used. This method is additionally capable of tally moving vehicles from videos. This paper will also examine the result of the computer vision programming under GNU Linux. The experimental results show that the proposed method can achieve more than 97% accuracy of vehicle counting.

**Keywords:** Highway traffic, Computer vision, Real time management