AUTOMATIC VEHICLE COUNTING AND CLASSIFICATION

Abstract:

Express highways are increasingly adopting Intelligent Transportation Systems. Automatic vehicle classification is one of the most critical subsystems, as it is responsible for the validation of vehicle categories on electronic toll collection. Vehicle counting and classification can give accurate information about the vehicle density on a particular city road or highway which helps in advanced traffic monitoring and management. A model for automatic vehicle type classification and counting based on machine learning is proposed to handle complex traffic scene. Vehicle classification needs to reach a high success rate, and in real applications. This paper proposes a novel classification method based on binary images of vehicle characteristics. It is mostly aimed at counting and classifying vehicles at highway from dynamic data obtained from the camera. In case of heavy traffic in a lane the vehicles can be redirected and this would maintain a better traffic flow. The final count of the number of vehicles passed through the path of choice will be displayed and classified throughout the day.