

# Vehicle Detection and Tracking

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**Abstract:** *Abstract Speed detection of vehicle and its tracking plays an important role for safety of civilian lives, thus preventing many mishaps. This module plays a very significant role in the monitoring of traffic where efficient management and safety of citizens is the main concern. In this paper, we discuss about potential methods for detecting vehicle and its speed. Various research has already been conducted and various papers have also been published in this area. The proposed method consists of mainly three steps background subtraction, feature extraction and vehicle tracking. The speed is determined using distance travelled by vehicle over number of frames and frame rate. For vehicle detection, we use various techniques and algorithms like Background Subtraction Method, Feature Based Method, Frame Differencing and motion-based method, Gaussian mixture model and Blob Detection algorithm. Vehicle detection is a part of speed detection where, the vehicle is located using various algorithms and later determination of speed takes place.*

**Keywords:** Vehicle Detection and Tracking

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