

IMPLEMENTATION OF AGGREGATE CHANNEL FEATURE (ACF) FUNCTION DETECTOR FEATURE-BASED VEHICLE DETECTION FOR AN AUTONOMOUS VEHICLE DETECTION

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Abstract:

Current research shows that an autonomous vehicle is being widely researched to increase safety on the road. In this research, computer vision system for an autonomous vehicle is important system that is needed as it mimics the human eyes and brain on road. By implementing some of image processing technique, a data of camera vision obtained. This research is focusing on implementation of Aggregate Channel Feature (ACF) function detector feature-based vehicle detection for an autonomous vehicle detection. ACF is used for vehicle recognition and detection. This technique analyzing the feature of the vehicles based on the series of image data. Besides that, we are applying Contrast-limited adaptive histogram equalization (CLAHE) image enhancement technique for more accurate vehicle recognition and detection.

Keywords: Autonomous Vehicle; Computer Vision; Image Processing; Vehicle Detection; Image Enhancement.