Abstract

This paper proposes a new approach for traffic sign board detection and also describes the SVM approach for the shape recognition into different classes of traffic sign boards. First, the object is detected using area-based analysis. The area-based analysis is performed on the video frames based on the circularity parameter. The test input for the project is video obtained from a camera mounted on a vehicle. Before that, the image pre-processing techniques are applied to improve the quality of the image and to convert it into a binary image. Then the properties of the image frame have been obtained for further analysis. The feature generation is done to get the principal component for the classification of objects. Then the machine learning algorithm is applied to the dataset classification purpose. The classification into different classes (unsupervised shape recognition) is done with the SVM approach.

References

A New Area based Algorithm for Traffic Sign Board Detection and Classification by SVM Approach

Video: A Fast Approach with Tracking.


5. Wiley Online Library.


Index Terms

Computer Science

Algorithms
Keywords

SVM – Support Vector Machine, Circularity, Unsupervised Shape Recognition