

TEAM
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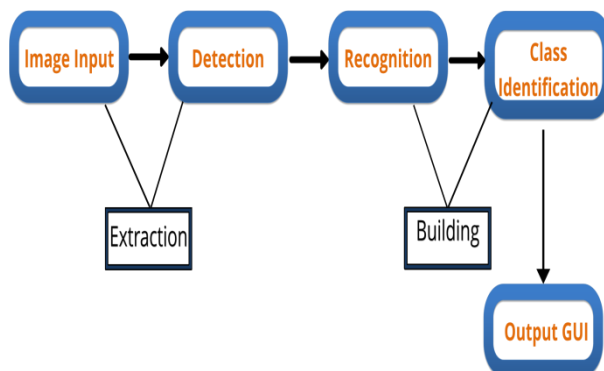
Traffic Signs Recognition

Abstract

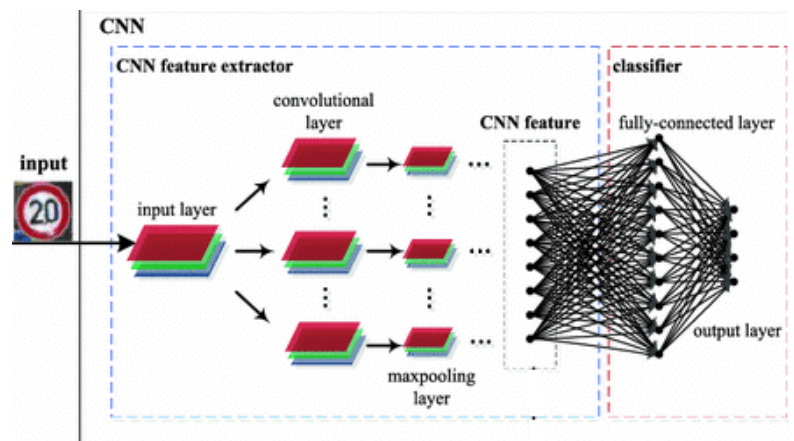
Traffic signs recognition is one of the most important background research topics for enabling autonomous vehicle driving systems. A deep learning based road traffic signs recognition method is developed which is very promising in the development of Advanced Driver Assistance Systems. The system architecture is designed to extract main features from images of traffic signs to classify them under different categories. The presented method uses Convention Layer Network to extract a deep representation of traffic signs to perform the recognition. CNN have a high recognition rate, thus making it desirable to use for implementing various computer vision tasks. TensorFlow is used for the implementation of the CNN. We have achieved good results for traffic signs on the Traffic Signs data set.

Modules

Extraction
Building



Architecture



Tools and Technology

- Spyder 3
- Language: Python
- Computer Vision

Conclusion and Future Scope

This system provides approach for detecting road traffic signs with quality output. It includes efficient feature extraction methods which results in appropriate outcomes. The CNN model is the finest techniques of Deep Learning which ensures accuracy in the achieved output. The model we have used gives the accuracy of 98%. This algorithm has a best speculation, and it can be trusted that it is used to identify more conventional traffic signs.

In future, we will try to increase the number of classes and we will try to include other sign containing different colors and shapes into account. A text to speech module can also be added to this application.

Guide

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