

Paper advantages: •  
contours information  
algorithm is used

[Technology](#), [Development](#)



PAPER 1: A Traffic Sign Detection Algorithm Based on Deep Convolutional Neural Network By Xiong Changzhen, Wang Cong, Ma Weixin, and Shan Yanmei

Advantages: • In this paper the algorithm based on deep convolutional neural network using region proposal network in Faster R-CNN. The method can detect all seven main categories Chinese traffic sign. • They have trained and compared three models VGG16, VGG\_CNN\_M\_1024 and ZF. • It gives the traffic sign detection rate of their algorithm is above 99%.

Disadvantage: • They don't have accuracy in obtaining ground truth and the class of the sign detected automatically.

PAPER 2: Fast Traffic Sign Detection and Recognition Under Changing Lighting Conditions By Miguel Angel Garcia-Garrido, Miguel Angel Sotelo and Ernesto Martin Gorostiza

Advantages: • Contours Information algorithm is used which is used in Canny edge.

- Hough Transform method is used to find curve in the image.
- For classification neural networks is used.
- Sign can be detected in any light conditions.

Disadvantage: • Image compression is not done which increases the processing time.

PAPER 3: A Survey of different image processing methods for the design and development of an efficient traffic sign board recognition system By Abhinav V. Deshpande and M. Monica Subashini

Advantages: • Averaging Filter, Wiener Filter, Un-sharp Mask Filtering methods are used to pre-process the image. • When there is a potential danger of collision Automatic Braking System (ABS) and an audio-visual warning signal is given.

Disadvantage: • They have only done until pre-processing, but sign detection, recognition and classification is not done.

PAPER 4: Automatic Voice

<https://assignbuster.com/paper-advantages-contours-information-algorithm-is-used/>

Generation System after Street Board Identification for Visually Impaired By Pravin A. Dhulekar, Niharika Prajapati, Tejal A. Tribhuvan, Karishma S.

Godse Advantage: • In this paper they used Optical Character Recognition (OCR) method, which is used to recognize character in the street board. • GLCD display is interfaced to Raspberry Pi for displaying text. •

Region of Interest (ROI) method is used to detect the specific character in the streetboard. Disadvantage: • Only used for detecting characters in the board but not for traffic sign. PAPER 5: A Vision System for Traffic Sign

Detection and Recognition By Jian-He Shi and Huei-Yung Lin Advantages: • In this paper they used Bilateral Chinese Transform (BCT) method, which is based on the gradient orientation and magnitude of the edge points. It can detect the complete or broken circle pattern in the image. • Vertex and Bisector Transform (VBT) method is used, which is like BCT but also used to calculate the accumulated contribution of all pairs of edge points. • Color information is used for selecting colors for detecting traffic sign board.

• Neural Network is used for Recognizing and classification. Disadvantage: • Only 84% of accuracy in detecting the sign board. PAPER 6: TRAFFIC SIGN DETECTION AND RECOGNITION USING OPENCV BY: Mrs. Shopa and Mrs. sumitha ABSTRACT: This project aims detection and recognition by recorded video sequence of traffic signs of car camera. Traffic signs recognition (TSR) is used to specify the traffic signs by warning the driver and command or prohibited some actions.

TSR support driver to identifying traffic signs by fast computational using the power full algorithms to improve driving safety and make comfort to driver. Automatic identification of traffic signs for automatic intelligent drive vehicle is also important. In this paper they use OpenCV to recognition of traffic signs modes of technology. Image was extract, detects and identification of traffic signs by pretreatment techniques like Canny Edge Detection, Gaussian filter and thresholding. ADVANTAGE: In this article they have been achieved openCV method to represent the outlines in the traffic signs. They use Artificial Neural Networks in recognition of images. HSV algorithm is used to recognition of traffic signs in cylindrical shape. DISADVANTAGE: Computational time increases because of using the large image dataset.

Compression techniques is not used to make computationally fast. Erosion and Dilation are not used PAPER7: AN ACTIVE VISION SYSTEM for REAL TIME TRAFFIC SIGN RECOGNITION BY: JUN MIURA and YOSHIKAI SHIRAI ABSTRACT: In this paper presented a positive visual system of real-time traffic signs recognition of system is by using two cameras, one is equipped with a wide angle lens other with telephoto lens and, PC on an image processing board of system is first detect traffic signs using wide angle camera based on color, content and shape of information. Recognizing traffic signs, it is often necessary knowledge to know about traffic signs and symbols.

Here in this paper they made system to detect only circular shape signs and they used image processing board to do pattern matching between capture image with stored images. ADVANTAGES: They used normalized correlation to match pattern of between captured image and stored image. For

calculating normalized correlation between capture image and imagedatabase they use image processing board has built in function.

DISADVANTAGE: Only circular board is detected. Normalized correlation method may weak for changing in lighting condition

PAPER8: A SMART DRIVER ALERT SYSTEM USING IMAGE DETECTION and RECOGNITION

TECHNIQUES BY: HARINI ABSTARCT: Road sign is important to ensure to

prevents from accidents. Road symbols is shown statements have different necessary information need to understand by driver. In this paper they

presented an overview of traffic signs board detection and identification and achieve a program to extract the signs from a original images. It gives alert

message to driver by text messages only. Automatic driver assistance

helps driver to prevent from accidents by sending an alert message, it may

helps driver to reach their destination and also helps to save fuel and money

to driver. ADVANTAGES: The red color traffic signs are recognized and

classified using Hough Transform and correlation technique.

Noise Removing, Thinning, Contrasting operations are implemented. Dilation and erosion are used to improve image quality. DISADVANTAGE:

Computation time is more. They assured about only 72% of accuracy in detecting and recognizing of traffic signs.