

# [Paper advantages: • contours information algorithm is used](https://assignbuster.com/paper-advantages-contours-information-algorithm-is-used/)

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PAPER 1: A Traffic Sign Detection Algorithm Based on Deep Convolutional NeuralNetwork By Xiong Changzhen, Wang Cong, Ma Weixin, and Shan YanmeiAdvantages:• In this paper the algorithm based on deep convolutional neural network using regionproposal network in Faster R-CNN. The method can detect all seven main categoriesChinese 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 detectedautomatically. PAPER 2: Fast Traffic Sign Detection and Recognition Under Changing LightingConditions By Miguel Angel Garcia-Garrido, Miguel Angel Sotelo and Ernesto MartinGorostizaAdvantages:• 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 developmentof an efficient traffic sign board recognition system By Abhinav V. Deshpande and M. Monica SubashiniAdvantages:• Averaging Filter, Wiener Filter, Un-sharp Mask Filtering methods are used to pre-processthe image.• When there is a potential danger of collision Automatic Braking System (ABS) and anaudio-visual warning signal is given.

Disadvantage:• They have only done until pre-processing, but sign detection, recognition andclassification is not done. PAPER 4: Automatic Voice Generation System after Street Board Identification forVisually Impaired By Pravin A. Dhulekar, Niharika Prajapati, Tejal A. Tribhuvan, Karishma S.

GodseAdvantage:• In this paper they used Optical Character Recognition(OCR) method, which is used torecognize 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 LinAdvantages:• In this paper they used Bilateral Chinese Transform(BCT) method, which is based on thegradient orientation and magnitude of the edge points. It can detect the complete orbroken circle pattern in the image.• Vertex and Bisector Transform(VBT) method is used, which is like BCT but also used tocalculate 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 RECOGNITIONUSING OPENCV BY: Mrs. Shopa and Mrs. sumithaABSTRACT: This project aims detection and recognition by recorded video sequence of trafficsigns of car camera. Traffic signs recognition(TSR) is used to specify the traffic signsby warning the driver and command or prohibited some actions.

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

Compressiontechniques is not used to make computationally fast. Erosion and Dilation are not usedPAPER7: AN ACTIVE VISION SYSTEM for REAL TIME TRAFFIC SIGNRECOGNITION BY: JUN MIURA and YOSHIKAI SHIRAIABSTRACT: In this paper presented a positive visual system of real-time traffic signs recognitionof system is by using two cameras, one is equipped with a wide angle lens other withtelephoto lens and, PC on an image processing board of system is first detect trafficsigns using wide angle camera based on color, content and shape of information. Recognizingtraffic signs, it is often necessary knowledge to known about traffic signsand symbols.

Here in this paper they made system to detect only circular shape signsand they used image processing board to do pattern matching between capture imagewith stored images. ADVANTAGES: They used normalized coo-relation to match pattern of between captured imageand 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 conditionPAPER8: A SMART DRIVER ALERT SYSTEM USING IMAGE DETECTION andRECOGNITION TECHNIQUES BY: HARINIABSTARCT: Road sign is important to ensure to prevents from accidents. Road symbols is shownstatements have different necessary information need to understand by driver. Inthis paper they presented an overview of traffic signs board detection andidentification and achieve a program to extract the signs from a original images. Itgives alert message to driver by text messages only. Automatic driver assistance helpsdriver to prevent from accidents by sending an alert message, it may helps driver toreach their destination and also helps to save fuel and money to driver. ADVANTAGES: The red color traffic signs are recognized and classified using Hough Transformand correlation technique.

Noise Removing, Thinning, Contrasting operations areimplemented. 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 trafficsigns.