A current flow of interest is to recognize Road Signs. Road Signs are the most essential visual language of the world that represents some special circumstantial information of environment and provides significant information for guiding, warning people to make their movements safer, easier and more convenient. The proposed system introduces a real time Road sign recognition system with a new method to extract sign features. This system consists of three stages: image acquisition and preprocessing, feature extraction, and recognition. In the first stage, input image of Road sign are captured by digital camera with appropriate frame rate and then preprocessed image by using some image processing techniques, such as, gray scale conversion, noise reduction, normalization, median filtering, binarization, remove unwanted portion of image etc. In second stage, a strong feature extraction method has been introduced to extract the some important feature of the input image. Finally, a multilayer neural network with back propagation learning algorithm is used to recognize the Road signs. The performance of the system is tested in different sorts of road signs and obtains the result where overall success rate of the system is 91.5% which meet the expectation the experimental of system.
A Real Time Road Sign Recognition using Neural Network

- A. Ruta and X. YongminLi, 2010, Real-time traffic sign recognition from video by class specific discriminative features, Pattern Recognition, pp. 416-430.

Index Terms

Computer Science

Pattern Recognition
Keywords
Computer Vision  Road Signs  Feature Extraction  Neural Network  Road Sign Recognition