

# ***TRAFFIC SIGNS IMAGE RECOGNITION USING COLOR MOMENT FEATURE EXTRACTION AND K-NEAREST NEIGHBOR***

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## ***ABSTRACT***

*Traffic signs have an important role in maintaining the safety and order of road users. Understanding the meaning of each traffic sign is a must for all road users. By understanding and obeying installed traffic signs, it is hoped that road users will avoid detrimental things such as traffic accidents and will also reduce the level of traffic problems such as congestion. However, not all road users understand the meaning behind installed traffic signs. Based on the description of the problem above, the application of an image recognition system can help in providing road users with an understanding of a traffic sign. This research aims to design and implement a traffic sign image recognition system which aims to enable road users to understand the traffic signs installed on the road. This traffic sign image recognition system uses color moment and k-nearest neighbor feature extraction methods to recognize a traffic sign image. The extracted color moments include the mean, variance and skewness of a traffic sign image. Later, each traffic sign will be classified using the k-nearest neighbor method using data from the extracted color moment features. The result of this research is a web-based traffic sign image recognition system, which can recognize traffic sign images that have been input by road users. Based on traffic sign images that have been input by road users, the system is able to recognize images with an accuracy value of 37%.*

*Keywords: Image recognition, Feature extraction, Color moments, K-Nearest Neighbor, Traffic signs*