

ABSTRACT

Every country around the world must have the flag as a symbol of their country. Similarly, country flags in ASIA. The difference may lie in the color, pattern, or both. Often we look at online forums, such as the buying and selling forum, the country flag image appears next to your user name. The function of country flag image is to declare the country of origin of the user. When you see a lot of users with the flag of the same in a single image, it would be easy to instantly recognize the user's home. However, if in one image there are many users who come from a different country, it would be difficult to identify the origin of each user one by one.

The method to be used in the country flag classification is Color Histogram RGB, HSV, and YCbCr with wavelet transform in feature extraction process. Color histogram is the color segmentation technique where the color of RGB, HSV and YCbCr will be segmented by matching the color of the image that has been trained on the database. Then the results that have been obtained will be processed again using wavelet transform. Afterwards, the result of feature extraction are classified using Template Matching.

The results that have been achieved are able to do the classification based on color and pattern flag using Template Matching. The accuracy of the system reached 94.82%. Input is taken by way of the process of cropping, printing, and scanning.