

Analysis of Random Forest Classifier based Attribute Filtering for Query based Image Retrieval

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Abstract – Content-based image retrieval (CBIR) is the application of computer vision to the image retrieval problem, that is, the problem of searching for digital images in large databases. Most of the existing image retrieval systems give lesser accuracy while using different features individually. Therefore, in this research work we develop a framework using extraction of color, texture and shape features along with Random Forest Classifier to classify the extracted features. For similarity measurement, we have used Euclidian distances for each feature. Performance of the proposed research work is carried out using certain evaluation parameters, namely; False Negative Rate, False Positive Rate, True Positive Rate and True Negative Rate.

Keywords – CBIR, Color Features, Euclidian distance, Texture features, False Negative Rate, False Positive Rate, Random Forest Classifier, Shape Features, True Negative Rate and True Positive Rate.