



Comparative Analysis of RGB and HSV Color Models in Extracting Color Features of Green Dye Solutions

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Abstract: RGB (Red, Green, Blue) and HSV (Hue, Saturation, Value) color models were compared with respect to their effectivity in color feature extraction. Varying concentration levels of green dye solutions were prepared, and their digital images were obtained in a controlled environment. The green dye was chosen to mimic the color of algae. Matlab® was utilized for color feature extraction and analysis. The result showed that it is easier to observe and classify colors given clustered data points in *HSV* color model than in *RGB* color model. And there is a direct correlation between the concentration level and digital colors in both color models.