Car Color Classification Using Pseudo K-Nearest Neighbors With RGB Color Characteristics And HSV Color Characteristics

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ABSTRACT

The color of the car is one of the identities attached to a car. In mentioning the color of the car, there are still mistakes, such as mentioning the color of a maroon car with red or the color of an orange car with yellow. The Red Green Blue (RGB) and Hue Saturation Value (HSV) features on the car color are used by researchers as feature extraction. The Pseudo k-Nearest Neighbors (PNN) method is a method for data classification. PNN determines data into a certain class from the total shortest distance of a number of k patterns of each class. The distance between data is calculated using the Euclidean distance formula. The dataset uses 1,050 image data which is divided into four color classes, namely red, maroon, yellow, and orange. With the PNN method and based on RGB and HSV color characteristics, the results of car color classification in this study obtained an accuracy rate of 84.29%.

Keywords: Pseudo k-nearest neighbors, classification, RGB and HSV citra images