Grey level to RGB using YCbCr color space Technique

Converting color images to grayscale is used for various reasons, like for reproducing on monochrome devices, subsequent processing. Each pixel in color image is described by a triple (R, G, B) of intensities like red, green, and blue. But how do you map that to a single value i.e. grayscale value. There are three methods to convert it. Average, Luminosity, Lightness. Different color models are used for different applications such as computer graphics, image processing, TV broadcasting, and computer vision. But still now there is no particular method for converting of grayscale to color image. In this paper a new approach was introduce to convert the grayscale image to color by using an YCbCr color space technique. Simulation results are presented to show how this approach is used to convert the grayscale to color image.

References

1. V.Karthikeyani, Dr. K. Duraiswamy, Mr. P. Kamalakkannan, Conversion of Gray-scale image
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2. Ding Z, Sun J, Zang Y. FCM image segmentation algorithm based on color space and
spatial information. International Journal of Computer and Communication Engineering. 2013,
2(1),48–51


4. Chitra S, Balakrishnan G. Comparative study of two color spaces HSCbCr and YCbCr in

5. P. Ganesan, V. Rajini, B. S. Sathish, V. Kalist and S. K. Khamar BashaSatellite Image
Segmentation based on YCbCr Color Space. IJST ,2015,8(1), 35–41,

6. Kaur A, Kranthi BV. Comparison between YCbCr color space and CIELab color space for
skin color segmentation. IJAIS. 2012,3(4), 30–33.

7. Iraji MS, Yadavari A. Skin color segmentation in fuzzy color space with Mamdani

8. Smriti Kumar, Deepak Singh. Colorization of Gray Scale Images in YCbCr Color Space

9. The OpenCV Library (http://opencv.org)

**Index Terms**

Computer Science  
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**Keywords**

Image Processing, Gray level, RGB, YCbCr