Enhancement and Manipulation of Color Images by Scaling the DCT Coefficients

International Journal of Computer Applications
© 2010 by IJCA Journal

Number 18 - Article 14

Year of Publication: 2010

Authors:
Makarand R. Shahade
Ishant I. Saklecha
Jayesh Shukla
Abhijit V. Raut
Piyush B. Desai

Abstract

This paper presents a new technique for color enhancement in the compressed domain. The proposed technique is simple but more effective than some of the existing techniques reported earlier. The novelty lies in this case in its treatment of the chromatic components, while previous techniques treated only the luminance component. The results of all previous techniques along with that of the proposed one are compared with respect to those obtained by applying a spatial domain color enhancement technique that appears to provide very good enhancement. The proposed technique, computationally more efficient than the spatial domain based method, is found to provide better enhancement compared to other compressed domain based approaches.
In this paper, we investigate how illuminant estimation techniques can be improved, taking into account automatically extracted information about the content of the images & we considered image manipulation for RGB color space.

Reference


Index Terms

Computer Science

Graphics and Imaging
Key words

luminance component

RGB color space

DCT Coefficients