NMAM Institute of Technology
(An Autonomous Institute Affiliated to VTU, Belgavi)
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NITTE – 574110, UDUPI DIST., KARNATAKA
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

IMAGE PROCESSING (16CSE82)

APPLICATION TO PROVIDE TOOLS FOR IMAGE PROCESSING WORKFLOW

SUBMITTED BY:

Reevan Mario Miranda (4NM16CS118)

Under the Guidance of

Dr. Aravinda C V

Assistant Professor, Gd III

ABSTRACT

Conversion of a color image into a grayscale image inclusive of salient features is a complicated process. The converted grayscale image may lose contrasts, sharpness, shadow, and structure of the color image. To preserve contrasts, sharpness, shadow, and structure of the color image a new algorithm has proposed. To convert the color image into grayscale image the new algorithm performs RGB approximation, reduction, and addition of chrominance and luminance. The grayscale images generated using the algorithm in the experiment confirms that the algorithm has preserved the salient features of the color image such as contrasts, sharpness, shadow, and image structure.

In grayscale images, however, we do not differentiate how much we emit of the different colors, we emit the same amount in each channel. What we can differentiate is the total amount of emitted light for each pixel; little light gives dark pixels and much light is perceived as bright pixels.