RESEARCH ARTICLE

CONTRAST ENHANCEMENT USING DOMINANT BRIGHTNESS LEVEL ANALYSIS ADAPTIVE INTENSITY TRANSFORM

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Abstract: - Contrast enhancement approach is mainly improves the image quality, Adding contrast usually adds "pop" and makes an image look vibrant while decreasing contrast can makes image dull. Contrast is defined as the separation between the darkest and brightest areas of the image. Increase contrast and you increase the separation between dark and bright, making shadows darker and highlights brighter. Decrease contrast and you bring the shadows up and highlights down to make them closer to one another. If we consider histogram equalization for a remote sensing images it improves the image quality, but it cannot preserve edge details exhibit in low and high intensity layers to achieve this goal we proposing the novel contrast enhancement method for remote sensing images using dominant brightness level analysis and adaptive intensity transform. Contrast enhancement approach based on dominant brightness level analysis adaptive intensity transform for remote sensing images. This algorithm computes the brightness- adaptive intensity transform function using the low frequency luminance component in discrete wavelet domain transform and transfer intensity values according to the transfer function. In this method discrete wavelet transform (DWT) input image decomposes into set of band limited components called HH, HL, LH and LL. LL sub band has illumination of low-,middle-,high-intensity layers using the log average luminance. Adaptive intensity transfer function estimation using the knee transfer function, gamma adjustment function based on the dominant brightness level of each layer. After this process the enhanced image obtained by using inverse DWT.

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