Color images comparison using spectral reflectance data analyzing

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Studies on the spectrum of various color images are very crucial in remote sensing applications. The detections and comparisons of an object in the color images are achievable by measuring the spectrum and reflectance data. This study has been conducted as to analyze the color images and the spectral reflectance. The data collection is done using digital camera and handheld spectroradiometer at a selected area in Penang, Malaysia. The technique of comparison of the object is proposed in this study. The airborne images from the digital color imageries were separated into three bands assigned as red, green and blue bands (RGB) for multispectral analysis. This separation process is done by using matlab software. Then the digital number (DN) for each band is extracted for the comparison process. As the result, the relationship between both data from these devices can be determined from the graph plot. In fact the spectral reflectance analysis of the digital color information reveals the relationship. This result is very useful as it can be used in the comparison process between similar objects in the image. This is happened due to the fact that objects with the same color or characteristics will results identical RGB information. However the spectral reflectance information will shows the differences. From the result in this paper, we can see the different spectral reflectance data between different color images.

Biography

FN Ahmad Sa’ad is a lecturer in Faculty of Applied Sciences at University Of Technology MARA, Penang Malaysia. He received his Bachelor Science Degree in Computational Physics and Electronic from University of Malaya, Kuala Lumpur, Malaysia in 2003 and his Master Science degree in Solid Sates Physics from University Science Malaysia, Penang Malaysia in 2010. His research interests include Remote Sensing and Solid States Physics.

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