

Lossy Image Compression by Rounding the Intensity Followed by Dividing (RIFD)

M. A. Otair and F. Shehadeh

Several millions of digital images are transmitted every minute via mobile applications. The main feature of these images is their huge sizes. However, most of their details are not important such as natural images. Continuous efforts are achieved to utilize the wireless bandwidth and capacity for mobile users. One of the most significant efforts is the image compression. The aim of this study is to introduce a new lossy technique called RIFD for compressing images, in order to overcome these problems by achieving high compression ratio. The proposed technique depends on increasing the redundancy and similarity among the neighboring pixels of images by rounding the pixels' intensities followed by the dividing process, which makes compression feasible. It can be applied alone or followed by any lossless compression algorithm. Experimental results show a great performance when RIFD followed by Huffman algorithm.

Otair, M. A., and Shehadeh, F., (2016), Lossy Image Compression by Rounding the Intensity Followed by Dividing (RIFD), Research Journal of Applied Sciences, Engineering and Technology.