

294. FPGA IMPLEMENTATION OF IMAGE COMPRESSION USING WAVELET INPAINTING

¹Arya Johny, ²B. Vidhya

¹PG Student, Department of ECE, KCG College of Technology, Chennai

²Asst. Professor, Department of ECE, KCG College of Technology, Chennai

Image compression reduces the irrelevant and redundant portion of the image data in order to be able to store or transmit data in an efficient form. Severe deterioration of the image quality would occur during the image compression technique. In this paper, a low bit rate image compression algorithm using wavelet inpainting method is adopted to overcome this problem the image compression is performed in the wavelet domain, to preserve more information in the image. Wavelet inpainting method is adopted for reconstructing the image. An iterative reconstruction algorithm – probability density estimation algorithm is implemented for optimizing the reconstructed image. High PSNR value is achieved when compared with JPEG 2000. First, the code is simulated using MATLAB and then its impulse c code is written and interfacing into the FPGA kit.

Key Words—wavelet inpainting, FPGA kit, iterative reconstruction algorithm

Journal of Science and Innovative Engineering & Technology