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Wavelet Coefficients Based on Orthogonal Matching Pursuit (OMP) Based Filtering for Remotely Sensed Images

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Abstract: In recent years, the technology of the remote sensing is growing rapidly. Image enhancement is one of most commonly used of image processing operations. Noise reduction plays very important role in digital image processing and various technologies have been located ahead to reduce the noise of the remote sensing images. The noise reduction using wavelet coefficients based on Orthogonal Matching Pursuit (OMP) has less consequences on the edges than available methods but this is not as establish in edge preservation techniques. So in this paper we provide a new technique minimum patch based noise reduction OMP which reduce the noise from an image and used edge preservation patch which preserve the edges of the image and presents the superior results than existing OMP technique. Experimental results show that the proposed minimum patch approach outperforms over existing techniques.

Keywords: image denoising, minimum patch, OMP, WCOMP

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