International Journal of Advanced Research Trends in Engineering and Technology (IJARTET)
Vol. 1, Issue 1, September 2014

Bivariate Cauchy Prior based method using Interscale Dependence

G.Manisankar[1], N.Ebenesar Jebadurai[2], R. Sudha Shree[3]

P.G.Scholar, Department of VLSI, Kalasalingam University, Krishnakoil[1]
P.G.Scholar, Department of VLSI, Francis Xavier Engineering College, Tirunelveli[2]
P.G.Scholar, Department of VLSI, Francis Xavier Engineering College, Tirunelveli[3]

Abstract: In this project work, the speckle noise from SAR images is removed using a despeckling algorithm that accounts for the intrascale dependencies of the DTCWT sub bands. The Dual Tree Complex Wavelet Transform with Maximum A Posteriori estimator gives better denoising performance compared to the conventional despeckling methods. The performance can be improved by using Adaptive Dual Tree Complex Wavelet Transform with Maximum A Posteriori estimator considering both inter and intrascale dependencies across the wavelet coefficients. The performance is analyzed interms of ENL, MSE and PSNR. Experimental results have shown that the proposed method gives better denoising performance compared to the conventional methods.

Keywords: Speckle Removal, ENL, MSE, PSNR, Denoising