Abstract

An orthogonal discrete wavelet transform (DWT) is a slantlet transform (SLT) with two zero moments and having improved time localization. SLT retains usual characteristics of filter bank implementation with a scale dilation factor of two. The basis is based on filter bank which uses different filters for different scales, is piecewise linear unlike iterated filter bank in DWT. This paper discusses the Compression and denoising of Power system disturbances through signal decomposition, thresholding of slantlet transform coefficients and signal reconstruction. Slantlet transform coefficients having values below the threshold are discarded and above are retained. The cost for data storing and transmitting for both cases is competently reduced when Compared to the energy retained of the compressed Power Quality (PQ) disturbance signals(input signals with and without noise).
Analysis of Power System Disturbance Signals using Slantlet Transform for Compression and Denoising

References


Index Terms

Computer Science
Electronic Design And Signal Processing

Keywords

Power Quality Events Slantlet Transform Compression Energy Retained Mean Square Error