Abstract

In this paper, double wavelet series of a signal $f$ of two variables $t_1$ and $t_2$ using Haar Scaling function $\Phi(t_1, t_2) = \varphi(t_1)\varphi(t_2)$ and Haar Wavelet function $\Psi(t_1, t_2) = \psi(t_1)$ is studied.
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1) \( \psi(t) \)

2) has been introduced and it has been verified by a number of examples. Several properties of this signal and its image have been studied. The significant result of this paper are the decomposition and reconstruction of signals of a single variable \( t \) and signals of two variables \( t_1 \) and \( t_2 \) using Haar Scaling signal as well as Haar Wavelets.

References


Index Terms

Computer Science

Image Processing

Keywords

Haar Wavelet, Signal Processing, Image Processing, Double Wavelet Series, Signals of Lip Class