Identification of Fingerprint using Discrete Wavelet Packet Transform

Authors:
Fahima Tabassum, Md. Imdadul Islam, M.R. Amin

Abstract

Objective of this paper is to identify a person taking fingerprint as a biometric parameter using wavelet packet transform. Here both conventional discrete wavelet transform (DWT) and discrete wavelet packet transform (WPT) are used considering special basis function/matrix to extract the coefficients of basis functions those convey the most of the energy of the signal or image. Here top 5% coefficients are chosen which actually convey the characteristics of an image. The outcome of the paper is to determine the set of energetic coefficients of basis functions which carry the features of an image hence storage required to preserve the template of images will be reduced considerably.

References

Identification of Fingerprint using Discrete Wavelet Packet Transform


Index Terms

Computer Science

Security

Keywords

Signal space, scaling and shifting parameter, basis function, concentrator vector and filter bank.