عنوان مقاله:

Dynamic-Level Wavelet-Based Fingerprint Recognition using Fuzzy Inference System

محل انتشار:

کنفرانس ملی فن آوری، انرژی و داده با رویکرد مهندسی برق و کامپیوتر (سال: 1394)

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خلاصه مقاله:

In this paper, a Fuzzy Inference System (FIS)-based fingerprint recognition method by using Wavelet Transformation (WT) is presented. This method is efficient even for low quality fingerprints. The features extraction of the proposed method differing with previous wavelet methods, is based on dynamic-level FIS decisions over Wavelet Decomposition (WD) parameters. Indeed, in our novel method, fingerprint frequency contents are evaluated based on the proposed concept of Approximation to Details Ratio (ADR). These features consist of Error Function outputs, ADR values and Wavelet Decomposition levels for the purpose of making these features more discriminative. The good recognition accuracy was achieved on the FVC2002 database.

کلمات کلیدی:

fuzzy inference system; fingerprint recognition; feature extraction; wavelet transformation

لینک ثابت مقاله در پایگاه سیویلیکا:

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