Designing a new system to consider matching signature by fuzzy system technique

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Abstract

Today's signature image is widely used as a means of personal verification in most legal documents and necessity of an automated verification system in society is one of important research in legal authorities and machine vision. Signature is the simplest way to authenticate and it is one of the most important behavioral biometric systems. In this paper two new methods proposed to improve preprocessing in signature images. With using these methods better image processing and feature extraction are achieved, good result with good accuracy are obtained. Fuzzy logic is used for checking likeness rate between real signature and input signature. With Using these methods high speed and more compression is obtained and it is more practical because it need only three signatures for verification. This method has minimum error rate in signature size, signature location in paper and signature rotation.

Keywords: Off-line signatures, Biometric authentication, Image Processing, Fuzzy systems

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