Abstract

Signature verification is one of the most widely used biometrics for authentication. The objective of the signature verification system is to discriminate between two classes: the original and the forgery, which are related to intrapersonal and interpersonal variability. Firstly, there exists great variation even between two signatures of the same person. They never start from the same position and neither do they terminate at the same position. Also, the angle of inclination of the signatures, the relative spacing between letters of the signatures, height of letters, all vary even for the same person. Hence it becomes a challenging task to compare between two signatures of the same person. The proposed an offline signature verification system to take care of that, which is based on depth for segmentation of signature image into different parts, after that geometric center of the each segment is find out as the feature point of that segment. The number of feature points extracted from signature image is equivalent to the number segment of the signature image that is produce by specifying value of depth. The classification of the feature points utilizes two statistical parameters like mean and variance. Our proposed model has three stages: image pre-processing, feature point’s extraction and classification &
Offline Signature Verification using Feature Point Extraction

verification. The user introduces into the computer through scanned signature images, our
 technique modifies their quality by image enhancement and noise reduction techniques, to be
 followed by feature extraction and finally used Euclidean distance model to classification of
 signature either genuine or forgery. The proposed offline signature verification system used
 “GPDS360 signature database”.

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Index Terms

Computer Science
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Keywords

Offline signature verification, geometric centre, feature point, forgeries, FAR (False Acceptance Rate), FRR (False Rejection Rate), CCR (Correct Classification Rate), image processing.