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IMPLEMENTATION OF SECURED PALM PRINT ENCRYPTION USING MULTIBIOMETRICS

Ms.A.Kaviya[1], Mr.T.Pradeep[2] and Mr.C.Shri Raman[3]
[1,2,3]Department of ECE, Kathir college of Engineering

Abstract - Multibiometrics can provide higher identification accuracy than single biometrics, so it is more suitable for some real-world personal identification applications that need high-standard security. Among various biometrics technologies, palm print identification has received much attention because of its good performance. Combining the left and right palm print images to perform Multibiometrics is easy to implement and can obtain better results. However, previous studies did not explore this issue in depth. In this paper, we proposed a novel framework with specialized algorithm Gradient pyramid method to perform Multibiometrics by comprehensively combining the left and right palm print images.
Keywords: Multibiometrics, palm print images, Gradient pyramid, Display

I. INTRODUCTION

Multibiometrics can provide higher identification accuracy than single biometrics, so it is more suitable for some real-world personal identification applications that need high-standard security. Among various biometrics technologies, palm print identification has received much attention because of its good performance. Combining the left and right palm print images to perform Multibiometrics is easy to implement and can obtain better results. This framework integrated three kinds of scores generated from the left and right palm print images to perform matching score-level fusion. The first two kinds of scores were, respectively, generated from the left and right palm print images and can be obtained by any palm print identification method, whereas the third kind of score was obtained using a specialized algorithm proposed in this paper. As the proposed algorithm carefully takes the nature of the left and right palm print images into account, it can properly exploit the similarity of the left and right palm prints of the same subject. Thus this proposal would be more useful for a personal Identification.

II. LITERATURE SURVEY

A novel approach to multiresolution signal-level image fusion is presented for accurately transferring visual information from any number of input image signals, into a single fused image without loss of information or the introduction of distortion. The proposed system uses a "fuse-then-decompose" technique realized through a novel, fusion/decomposition system architecture. In particular, information fusion is performed on a multiresolution gradient map representation domain of image signal information. At each resolution, input images are represented as gradient maps and combined to produce new, fused gradient maps. Fused gradient map signals are processed, using gradient filters derived from high-pass quadrature mirror filters to yield a fused multiresolution pyramid representation. The fused output image is obtained by applying, on the fused pyramid, a reconstruction process that is analogous to that of conventional discrete wavelet transform. This new gradient fusion significantly reduces the amount of distortion artifacts and the loss of contrast information usually observed in fused images obtained from conventional multiresolution fusion schemes.The framework not only combines the left and right palm print images for identification, but also properly exploits the similarity between the left and right palm print of the same subject. Human palm images are taken as the input, in which

enhancement and recognition can be carried out and finally the output was classified as genuine and imposter (fake) in all biometric systems. Along with the recognition, image quality assessment parameters are implemented.

III. EXISTING SYSTEM

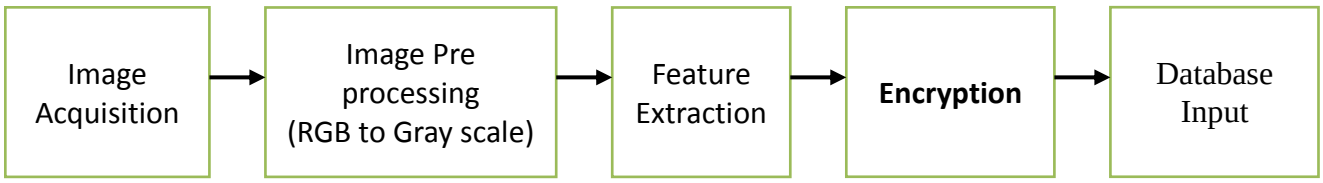
Direct or spoofing attacks have motivated the biometric community to study the vulnerabilities against this type of fraudulent actions in modalities such as the iris, the fingerprint and the face.

Image quality assessment was carried out and the quality of the output image was analyzed by using different parameters. The performance from this approach is shown to be very high, but the key details of their implementation are missing. Since the attacks are performed in the analog domain and the interaction with the device done following the regular protocol, the usual digital protection mechanisms (e.g., encryption, digital signature or watermarking) are not effective.
The robustness and security level of the systems is weak.

IV. PROPOSED SYSTEM

This project is about the combination of the both right and left palm print images for personal identification. It is more advantageous than the existing system. In the framework, three types of matching scores, which are respectively obtained by the left palm print matching, right palm print matching and crossing matching between the left query and right training palm print, are fused to make the final decision. The framework not only combines the left and right palm print images for identification, but also properly exploits the similarity between the left and right palm print of the same subject.

V. BLOCK DIAGRAM



VI. DESIGN PROCESS

our project we use an algorithm method for this called as Gradient pyramid method. At initial, the images of palm are taken. The images are in the format of RGB and then it is converted into Grayscale images. The palm print images have the extraction of the images. The images are taken for encryption and thus taken for assigning nodal points of the palm. An input is created for the database for the personal identification. These samples are acquired for both sample and biometrics. The output device is used here is the scanner to scan the prints of palm. Thus the palm prints are used for the personal identification.

6.1. ADVANTAGES:

- It presents the usual advantages of this type of approaches: fast, as it only needs one image (i.e., the same sample acquired for biometric recognition) to detect whether it is real or fake.
- It is capable of operating with a very good performance under different biometric systems.
- It also provides a very good level of protection against multi-attacks.
- Non-intrusive.

- User-friendly.
- Cheap and easy to embed in already functional systems.
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VII. APPLICATIONS

- It is used for personal identification in the work places.
- Used as keyless entry system in automobiles such as Car, Bus.
- It can be used in security for banking , lockers etc

VIII. CONCLUSION

This project has the feature of assigning each node for the palm of both hands. Thus, the scanning process has an advantage of scanning the node which is visible or on the scanner. The image is scanned and then the person is identified and the database is created.

IX. FUTURE WORK

In our project we are using an algorithm called Gradient pyramid and this can access the palm at any node. In future, image can be accessed with the Histogram technique which can be helpful in better visualization.

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