

# Human Iris using Neural Network

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**Abstract:**-Multi-biometric systems are being increasingly deployed in many large-scale biometric applications because they have several advantages such as lower error rates and larger population coverage compared to uni-biometric systems. However, multi-biometric systems require storage of multiple biometric templates (e.g., fingerprint, iris, and face) for each user, which results in increased risk to user privacy and system security. Traditional iris segmentation methods provide good results good result when iris images are recorded ideal imaging conditions. However the segmentation accuracy of an iris recognitions system considerably influences its performance especially in the case of non ideal iris images, iris datasets are collected from online for the further processes which are recorded in the visible and infrared imaging conditions are used, then fusion of an expanding and a shrinking active contour is developed for the iris segmentation by integration of a new pressure force on the active contour model. That is Active Contour Force (ACF) model is used for segmentation .To isolate the boundaries of an iris. Uncircle normalization schema is employed to get normalized image from the segmented image.

**Keywords:** *Integrated Query, Convolutional Neural Networks, Common Type System*

## 1.INTRODUCTION

Iris segmentation based on a possible fuzzy method is used to identify the local vectors already available algorithms use two circular templates to identify the eye but are not in a standard circle show that leads to iris legacy and difficult to find proper identification edge detection method proposed to identify the iris and pupil input image from database.

k-algorithm is used to match the exact image for the given input data by making input pepsin as centric and the related pupil forming the usage position the eye images the method provides the effective adaptation technique to detect pupil and it can increase the accuracy for iris resonance.

A physiological characteristic is relatively stable physical properties such as fingerprint iris, facial, hand shadow image the type of measurement is fundamentally invariable and unchangeable without substantial compulsion. In this application a secure manner the person or the object itself is a password user verification system that use a single biometric display are disrupted by noisy data limited freedom degrees and error rates several biometrics attempt to overcome these drawbacks by providing multiple identity features of the same identity so that performance can be increased.

The human iris can be tested frequently throughout time its permanent and invariant only when the individual has not consumed alcohol comprises of unique iris pattern even the left and right iris of an individual varies iris recognition based personal authentication system is known to be reliable over biometric methods identifying two people with same pattern probability is more over zero.

Traditional iris segmentation methods provide good results. When iris image are recorded under ideal imaging conditions check the segmentation accuracy of an iris recognition system considerably influence the Active count the method is used for conidial iris image algorithm for count the model describe the bounders of shape in a images.

## 2. EXISTING SYSTEM

- Traditional iris recognition methods cannot achieve high identification rate using these low-quality images
- To enhance the performance of mobile identification, develop a deep feature fusion network that exploits the complementary information presented in iris and periocular regions
- This model requires much fewer storage spaces and computational restheces than general CNN

### 2.1 DISADVANTAGES

- 1) **Intrusion attack:** If an attacker can hack into a biometric database, he can easily obtain the stored biometric information of a user. This information can be used to gain unauthorized access to the system by either reverse engineering the template to create a physical spoof or replaying the stolen template.
- 2) **Function creep:** An adversary can exploit the biometric template information for unintended purposes leading to violation of user privacy. Security of multi-biometric templates is especially crucial as contain information regarding multiple traits of the same user.

## 3. PROPOSED SYSTEM

- The segmentation accuracy of an iris recognitions system considerably influences its performance especially in the case of non ideal iris images iris datasets are collected from online for the further processes which are recorded in the visible and infrared imaging conditions are used then fusion of an expanding and a shrinking active count the is developed for the iris Segmentation by integration of a new pressure force on the active count the model
- That is Active Count the Force (ACF) model is used for segmentation To isolate the boundaries of an

iris. Uncircle normalization schema is employed to get normalized image from the segmented image

3.1 ADVANTAGES

- Compared to uni-biometric systems that rely on a single biometric trait, multi-biometric systems can provide higher recognition accuracy
- Consequently, multi-biometric systems are being widely adopted in many large-scale identification systems

4. SYSTEM ARCHITECTURE

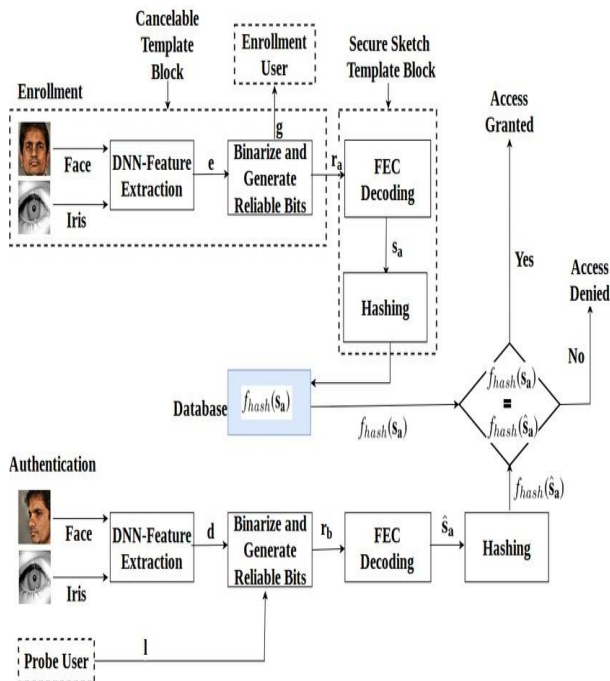


Fig no : Architecture diagram

- A system architecture or systems architecture is the computational design that defines the structure and/or behaviour of a system
- An architecture description is a formal description of a system, organized in a way that supports reasoning about the structural properties of the system. It defines the system components or building blocks and provides a plan from which products can be procured, and systems developed, that will work together to implement the overall system

5. METHODOLOGY

- IRIS feature Module
- Feature-Level Fusion Module
- Secure data forwarding Module
- Performance Evaluation Module

IRIS feature Module

The feature extraction module adopts the wavelet transform as the discriminating features. Similarity between two iris images is estimated using Euclidean distance measures. Features extracted using higher level wavelet

decompositions are shown to yield better clustering and higher success rate in recognition. The proposed method includes three modules: image preprocessing, feature extraction and recognition modules.

Feature-Level Fusion Module

Feature-level fusion, the feature sets originating from multiple biometric sources are consolidated into a single feature set by the application of appropriate feature normalization, transformation, and reduction schemes and process of combining two feature vectors to obtain a single feature vector, which is more discriminative than any of the input feature vectors. CCAFUSE applies feature level fusion using a method based on Canonical Correlation Analysis.

Secure data forwarding Module

General encryption schemes protect data confidentiality. In the proposed system a secure distributed storage system is formulated by integrating a threshold proxy re-encryption scheme with a decentralized erasure code. The distributed storage system not only supports secure and robust data storage and retrieval, but also lets a user forward data from one user to another without retrieving the data back. The method fully integrates encrypting, encoding, and forwarding. The proposed system is applied for military and hospital applications, then other secret data transmission

Performance Evaluation Module

The performance management process offered by HeRMeS® is built on the principle of disaggregation and transformation of the strategic goals into operational objectives and translation of defined organizational values into desired behaviors in the workplace. It is composed of multiple steps and elements that can be modeled in accordance with the accepted practices.

6. CONCLUSION

The new deep network named as DeepIrisNet for iris representation. To investigate the effectiveness of DeepIrisNet, designed various experiments following unseen pair matching paradigm, using large databases. Empirically, demonstrated that DeepIrisNet significantly outperforms strong baseline based on descriptor and generalizes well to new datasets.

7. FUTURE ENHANCEMENTS

The additional computation that needs to be carried out can be Modulo multiplications to be done for encryption/decryption and inner product, and the additional time spent in the computation of random numbers, products, and sums. Consider a biometric with feature vector of length. In the protocol, the client needs to do encryptions for the test vector.

8. REFERENCES

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