CHAPTER 11

CONCLUSION AND FUTURE WORK

This Chapter has highlighted the results of the work done in the Thesis. The performance of the proposed systems is compared with the existing systems in terms of time taken, Accuracy, Precision, Recall, F-Score and error rate. It is seen that the propounded schemes outperform the existing schemes.

This Chapter brings out the various mechanisms available for face recognition and tracking. These mechanisms are enhanced and the results are analysed by comparing the performance of the existing and proposed methods.

The images were pre-processed and binary PSO parameters were fine tuned. This yielded better results in both ORL databases in terms of recognition rate and number of DCT coefficients in the final subset (Non-zero coefficients). The number of DCT coefficients was very less in ORL as images were resized to half. Thus, proper use of image pre-processing depending on the image sets helps in increasing the recognition rate as well as reducing the number of DCT coefficients in the final subset.

A multi-view facial expression realization approach is developed with the potential of being utilized to real-world instances using S-PCA. Facial landmarks on faces showing pose variants are discovered automatically up to profile view. An procedure to recognize
facial features and pose working in actual-world eventualities is provided. The proposed S-PCA offers with the right and left positions of faces with feelings. It yields more accuracy and includes less time.

The main objective of this work is to investigate the problem of hand tracking in high-speed videos. Specifically, the reason for this struggle is the physical structure of the hand which allows significant appearance changes. To solve the problem, a hybrid approach that combines two main approaches namely, S-PCA and KLT algorithms is proposed. KLT aims to track and recover the face which is the ultimate solution to the problem.

A face recognition method utilising ACM and PCA with Neural Networks in the context of face verification and face cognizance using photometric normalization for evaluation is presented. The experimental results show the NN Euclidean distance ideas utilizing PCA yields higher performance for verification. Nevertheless, for consciousness, an hybrid ASM and PCA give the perfect accuracy using the common face picture. As a consequence, applying histogram equalization systems on the face snapshot don't provide much affect to the performance of the process if carried out under controlled atmosphere.

Hybrid strategy combining each Graph mainly founded segmentation rule and SIFT supported face recognition, together with PCA and KNN algorithms. For native facets, the
Hessian-Laplace detector with ESPCA descriptor is employed. The SPCA-KNN classifier is used to find the face from the characteristic vector.

ESPCA is utilized to find the item, whereas the KNN classifier identifies the closest object from the informed choices. Within the proposed technique, item awareness presents greater accuracy. The ESPCA is in comparison with Eigen faces and tested. Rectangular measure investigation is done by using the SIFT options. The have an impact on of image segmentation for retrieval of correct face with alternate forms of face representatives is done.

An awareness fee of 95 is acquired for non-segmented graphics and ninety eight for metameric photographs (seven-hundred coaching graphics) in the ESPCA-KNN manner.

A function extraction procedure is applied to nonetheless photographs that are evaluated on data and metameric data. The proposed system is strong to extreme expression variations due to the fact it works expeditiously on the given pics. The segmentation of ESPCA-KNN features presents a confident have an effect on for face cognizance and hurries up the reputation KNN process.

A complete exact countenance face expression recognition technique that uses features derived from DCT coefficients, besides Self-Organizing Map (SOM)-centered classifier. The second-DCT and Kyrgyzstani monetary unit Neural community help within the implementation of reasonably-priced countenance awareness system. The process is
evaluated utilising MATLAB mistreatment snapshot know-how of 25 facial pics, containing 5 subjects and each subject having 5 photos with utterly one of a kind facial expressions. When coaching about 2000 epochs, the system achieves a attention rate of 95.05% for quickest community coaching time.

Within the ensuing Chapter, Hidden mathematician model (HMM) and Singular valued at Decomposition (SVD) Coefficients established tactics are proposed for matching new borns.

Face cognizance methodologies for newborn identification is carried out in countless hospitals and nursing properties. Therefore, a database is generated well before the problems of boy or girl’s abduction, swapping or lacking. The system may also be utilized via the nursing employees of the hospitals for convenient consciousness of the child and his dad and mom. This may rationale the discrepancies that will arise when more than one toddlers are born within the identical period. The Hidden Markov model (HMM) with the combination of Singular value Decomposition (SVD) methods supplies a quick good value process for identification of newborns.