A report on

LEARNING ALGORITHM FOR EFFECTIVE AND ACCURATE FACE RECOGNITION IN DYNAMIC ENVIRONMENTS

Done by

Roll No	Names of Students
1MV07CS029	Guru Prasad M
1MV07CS048	Kunal Ghosh
1MV07CS043	Kiran Tej J L
1MV07CS025	Dharini S

Under the Guidance of
G Thippeswamy

Sir M Visvesvaraya Institute of Technology
Krishnadeveraya Nagar, Hunasamranhalli, NH-7, Via-Yelahanka, Bangalore-562157, Karnataka, India

(1) Introduction

A general statement of the face recognition problem (in computer vision) can be formulated as follows: Given still or video images of a scene, identify or verify one or more persons in the scene using a stored database of faces.

Now a days, face recognition systems are gradually becoming popular and plays a critical role in biometric systems. Face representation and recognition has numerous applications including visual surveillance and security, personal authentication etc. uses. Because of the general public acceptance of face images on various documents, face recognition has a great potential to become the next generation biometric technology of choice. Face images are also the only biometric information available in some legacy databases and international terrorist watch-lists and can be acquired even without subjects'/candidate's cooperation. Though there has been a great deal of progress in face detection, efficient face representation and accurate face recognition in the last few years, many problems remain unsolved.

(2) Motivation

Research on face detection, subsequently followed by recognition, must confront with many challenging problems, especially when dealing with outdoor illumination, pose variation with large rotation angles, low image quality, low resolution, occlusion, and background changes in complex real-life scenes. The design of face recognition algorithm s that are effective over a wide range of viewpoints, complex outdoor lighting, occlusions, facial expressions, and aging of subjects, is still a major area of research. Several models have been found in the literature ranging from appearance based approaches to sophisticated systems based on thermal information, high resolution images or 3D models. A comprehensive survey of face recognition algorithm is given by Eigen- faces and Fisher-faces are the widely used and successful appearance based models for face recognition. Different algorithms tackle the above said problems with varying accuracy. Face recognition is usually performed in a dynamic scenario. The challenges vary in this scenario

(3) Algorithm

To overcome the above said drawbacks, we propose a hybrid model for face recognition. The challenges are triggered by various dynamic parameters.

(4) Software Requirements

Software requirements here

(5) Hadrware Requirements

- Someone can start typing this too..
- RAM min 4GB (most of the algorithms are very memory intensive and store a whole bunch of images on RAM for faster processing)
- Hard drive - 80 Giga bytes (may be more if a lot of images are there in the database)
- Processor- 2.2 GHz 4 Core Processor (

(6) Conclusion

Conclusions here