Enhancement of Face Recognition technology in Biometrics

[1]Manisha, Research Scholar, Department of CSE, IITB College, Sonipat, manisha08sharma@gmail.com
[2]Ritika Saroha, , Assistant Prof., Department of CSE, IITB College, sonipat saroharitika@gmail.com

Abstract: A face recognition system is a group of programs for automatically recognize a person from a digital graphics or a video frame. Way to do this is by comparing selected characteristics from graphics and face database. Some facial recognition applications identify facial features by extracting landmarks, or features from graphics of subject's face. In this research we have studied & evaluate different edge detection techniques. We have seen that canny edge detector gives better result as compared to others with some positive points. It is less sensitive to noise, adaptive within nature, resolved problem of streaking, provides good localization & detects sharper edges as compared to others.

Keywords: Face Recognition, Biometrics, Canny Edge Detection, Robert, Previtt, Sobel.

[1] Introduction

A face recognition system is a group of programs for automatically recognize a person from a digital graphics or a video frame. Way to do this is by comparing selected characteristics from graphics and face database. It is generally used within security systems & could be compared to other identifications such as fingerprint or eye iris recognition systems.

Some facial recognition applications identify facial features by extracting landmarks, or features from graphics of subject's face. For example, an algorithm could analyze relative position, size and shape of eyes, nose, cheekbones and jaw. These features are then used to search for other images with matching characteristics. Other applications normalize a group of face images and then compress face properties, only saving data within graphics that is useful for face recognition. A probe graphics is then compared with face data. One of earliest successful systems is based on template matching techniques applied to a set of salient facial characteristics, providing a compressed face representation.

Recognition algorithms could be divided into two main approaches like geometric, which overviews at important characteristics or photometric, which is a statistical approach that distills graphics into properties and compares these properties with templates to eliminate variances. Popular recognition algorithms include Principal Component Analysis using Eigen faces, Elastic Bunch Graph Matching using Fisher Face Algorithm (FFA), Linear Discriminate Analysis, The Hidden Markov model, and neuronal motivated dynamic link matching.

Now rising development claimed to achieve more correctness is three-dimensional face recognition. This technique use 3D sensors to capture information about shape and size of a face. This information is then used to identify distinctive characteristics on surface of a face, such as outline of eye, nose, forehead and chin.

Note :For Complete paper/article please contact us info@jrps.in

Please don't forget to mention reference number , volume number, issue number, name of the authors and title of the paper