PROJECT REPORT ON

IRIS UNMASK

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ABSTRACT

The iris is the colored portion of the eye that surrounds the pupil and controls the amount of that can enter the eye. The variations within the patterns of the iris are unique between eyes, which allows for accurate identification of an individual. Current commercial iris recognition algorithms require an orthogonal image of the eye (subject is looking directly into a camera) to find circular inner (pupillary) and outer (limbic) boundaries of the iris. If the subject is looking away from the camera (non-orthogonal), the pupillary and limbic boundaries appear elliptical, which a commercial system may be unable to process. This elliptical appearance also reduces the amount of information that is available in the image used for recognition. These are major challenges in non-orthogonal iris recognition. This research addressed these issues and provided a means to perform non-orthogonal iris recognition. All objectives set forth at the start of this project were accomplished.

The project iris recognition is basically a software project using matlab project. Here we take the image of the eye through an infrared camera .The image is then applied through Hough transform to complete the missing points in the images of iris, sclera and pupil. The main of purpose of using houghs transform is its robustness against missing data points. Once the image acquisition is done then the next step is the localization of the iris from the sclera and pupil.

Then the segmentation is to be done, it is done both row wise and column wise and the data in the segment is stored . Then the feature encoding is done using fuzzy rough set logic. The encoded result is compared with the iris's in our databank and recognition is done. This recognition yields 99% of accuracy.