Abstract

This paper presents sclera-based biometric recognition. The vessel patterns in sclera are different for every individual and this can be used to identify a person uniquely. In this analysis, we are using sobal filter and Otsu’s thresholding methodology for sclera segmentation. Second we have designed a Gabor filter for sclera pattern enhancement to high light and binarize the sclera vessel patterns because the segmented sclera area is highly reflective. As a result, the sclera vascular patterns are unclear or/and have very low contrast. To accomplish the illumination impact and to achieve an illumination-invariant method, it is important to enhance the vascular patterns. Finally, we tend to plan a line-descriptor based feature extraction, registration, and matching technique. We have used the UBIRIS version one.
dataset for the experimentation of our analysis. The experimental results show that sclera recognition could be a trust worthy new biometrics for human identification.

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Index Terms

Computer Science Image Processing

Keywords

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