FDGRS: Improve Accuracy of Face Detection and Gender Recognition in Complex Lighting Environment by Image Enhancement Techniques

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Abstract

This work focuses on the area of face processing and aims at designing a reliable framework to facilitate face, and gender recognition. Gender recognition aims at recognizing a person’s gender (Male/Female). Automatic Gender recognition has become relevant to an increasing amount of applications gender recognition by face such as human computer interaction systems, content based image search, video surveillance, and more. Extensive experiment shows that the proposed model is able to capture both global and local information about faces. Tasks perform by system algorithm face detection, histogram of that particular for getting image information, reduce the image information by using histogram equalization and adaptive histogram equalization, noise remove by proposed NRCustom filter, human face characteristic extraction system and finally feature vector matching, classification. For experiment, purpose we adopted colored face image with different complex lighting condition (dark/dim/shaded) of random size and perform their simulation. Then finally, the system classifies the gender (Male/Female), count total no of images in database and separate number of males and females are present in the database.
References

17. Caifeng Shan. Learning local binary patterns for gender recognition on real-world face

Index Terms

Computer Science  Image Processing

Keywords

Pre-processing, feature extraction, Gender recognition system