Abstract

There has been a enlarge interest in the automatic determination of age from facial photograph due to a lot of inherent applications. However, in spite of advances in automatic age estimation, it remains a difficult problem because the face aging process does not depend only by intrinsic factors, e.g. genetic factors, but also on extrinsic factors, e.g. lifestyle, environment, and expression. The recognition properties of face images have been well investigated in real-world applications. Although the wide survey of person recognition from face images, there is only a small amount of research carried out on how to exactly estimate and use the analytical information contained in face images such as age, gender, and nationality. Some of the inherent applications of automatic estimation of age are: (i) Law enforcement: Automatic age estimation systems will facilitate to see the inherent suspects more accurately and expertly by sorting the gallery database of images using the estimated age of the input photographs. (ii) Security control: an Associate degree automatic age estimation system can be used to prohibit minors from buying alcohol or cigarette from vending machines or getting access to improper web pages. (iii) Human-computer interaction (HCI) - the system can modify the contents given to a
user based on their age. Experimentation has been performed on Appa-Real-Release dataset and observed that Mean Absolute Error be minimized using RBF-Kernel.

References

13. Karthikeyan, Balakrishnan, A comprehensive age estimation on face images using hybrid filter based feature extraction, Biomedical Research 2018; Special Issue: S472-S480.

Index Terms

Computer Science Information Sciences

Keywords

Image processing, Machine Learning, Feature Extraction, Viola-John algorithm, non-reflective similarity transformation