Abstract

Machine recognition of faces is a biometric process in which face of a person is recognized by comparing the present image of a person with the image already present in the database. Demand is increasing rapidly as recognition is a vigorous research issue because of its non-copier characteristic. Compelling attention has been received by this technology because it has potential for tremendous applications like criminal identification, bank/store security, credit card verification, healthcare, marketing, automatic attendance etc. Face recognition is very secure method but its performance is degraded by some factors. Several researchers have recommended methods to nullify the effects of these factors. This paper provides a review on some effective 2D and 3D face images techniques with pose variations which are compared on the basis of recognition rates. From the discussed 2D face images techniques, recognition rate up to 100% was obtained by Kernel Canonical Correlation analysis (KCCA) only if input images are less than 200 images. If input images are more than 200 then 2D image based approach has higher recognition rate and is also simpler. From the discussed 3D techniques, recognition rate is highest of morphable model and also this technique is not affected by occlusion.
References

4. Wei-Lun Chao “Face Recognition” GICE, National Taiwan University (2007)
12. Sumit Shekhar, Student Member, IEEE, Vishal M. Patel, Member, IEEE, and Rama Chellappa, Fellow, IEEE, “Synthesis-based Robust Low Resolution Face Recognition” IEEE transactions on information forensics and security (2017)
19. Vijay H Mankar “A review on 2D, 2.5D and 3D image visualization techniques”

Index Terms

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