Abstract

Face recognition indeed plays a major rule in the biometrics security environment. Facial marks as for example freckles, moles, scars etc that are soft biometric traits have played a crucial role in identifying the human face. To provide secure authentication, we require robust methodology for recognizing and authentication of the human face. However, there are numbers of difficulties in recognizing the human face and authentication of the person perfectly. The difficulty includes low quality of images due to sparse dark or light disturbances. To overcome such kind of problems, powerful algorithms are required to filter the images and detect the face and facial marks. This technique comprise extensively of detecting the different facial marks from that of low quality images which have salt and pepper noise in them. Initially we applied (AMF) Adaptive Median Filter to filter the images. The filtered images are then extracted to detect the primary facial feature using a powerful algorithm like Active Shape Model (ASM) into Active Appearance Model (AAM). Finally, the features are extracted using feature extractor algorithm Gradient Location Orientation Histogram (GLOH).
Biometrics Security: Facial Marks Detection from the Low Quality Images

descriptors" MIKOLAJCZYK AND SCHMID: A PERFORMANCE EVALUATION OF LOCAL DESCRIPTORS.
- Hong-rui Wang, Jian-li Yang, Hai-jun Sun, Dong Chen, Xiu-ling Liu, &quot;An improved Region Growing Method for Medical Image Selection and Evaluation Based on Canny Edge Detection&quot; 978-1-4244-6581-1/11/$26. 00 ©2011 IEEE.
- N. A. Spaun, &quot;Forensic biometrics from images and video at the Federal Bureau of Investigation,&quot; in Proc. BTAS, 2007, pp. 1–3.
- N. A. Spaun, &quot;Facial comparisons by subject matter experts: Their role in biometrics and their training,&quot; in Proc. ICB, 2009, pp. 161–168.

Index Terms

Computer Science

Security

Keywords

Face recognition Facial marks Soft biometrics Active Shape Model Active Appearance Model

Adaptive Median Filter
GLOH