

Works While Focusing on Facial Soft Biometrics and Discusses

Thiru M. Annaswamy*

Department of PM&R, UT Southwestern Medical Center, San Diego, USA

Introduction

The focus has been changed to multi-biometrics thanks to the safety demands. The ancillary information extracted from primary biometric (face and body) traits like facial measurements, gender, color of the skin, ethnicity, and height is named soft biometrics and may be integrated to improve the speed and overall system performance of a primary biometric system (e.g., fuse face with facial marks) or to generate human semantic interpretation description (qualitative) of a person and limit the search in the whole dataset when using gender and ethnicity (e.g., old African male with blue eyes) in a fusion framework. This chapter provides a holistic survey on soft biometrics that show major works while that specialize in facial soft biometrics and discusses a number of the features of extraction and classification techniques that are proposed and show their strengths and limitations. Recently, with the rise of terrorism and violence, the interest in identification technique using video surveillance has greatly increased. Also, with widespread of computers, biometric authentication comes in demand in such fields as home automation and health care. Recently, it's happen through pattern recognition, computer vision, and image analysis automatically detecting physical presence and verifying one's identity. Biometrics aims to recognize a person through physiological or

behavioral attributes, such as face, fingerprint, iris, retina, and DNA. Biometrical methods are often largely divided into traditional technique that deals with physical data like face features and fingerprints, and therefore the so called soft biometrics that's concerned about gender, ethnicity, height, tattoo, and signature as shown in Figure 1 Traditional biometrics has excellent accuracy and great versatility. However, it is difficult to collect physical data from a distance, and also cooperation is often required like with lifting fingerprint. On the opposite hand, soft biometrics has less accuracy, but it is often utilized in an outsized sort of environments and doesn't require cooperation. Since soft biometric data are not totally dependable, person identification is made based on multiple data. For example, only gender and ethnicity information is not enough to verify one's identity. Recently, multimodal biometric methods are extensively researched where traditional and soft biometrics work together so as to make sure best results for a selected environment. One of the main advantages of a multimodal approach is that it's harder to bypass.

How to cite this article: Alemayehu, Demissie . "Works While Focusing on Facial Soft Biometrics and Discusses." *jbmb*12 (2021) : 6

*Corresponding author: Thiru M. Annaswamy, Department of PM&R, UT Southwestern Medical Center, San Diego, USA, E-mail: thiru.annaswamy@va.gov

Copyright© 2021 Thiru M. This is an open-access article distributed under the terms of the creative commons attribution license which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Received Date: June 01, 2021; Accepted Date: June 15, 2021; Published Date: June 22, 2021