J Cosmo Trichol 2017, 3:3(Suppl)
DOI :10.4172/2471-9323-C1-006

Facial beauty analysis system by computer models

David Zhang
Hong Kong Polytechnic University, Hongkong

Statement of the Problem: The human face plays an important role in the daily life. Pursing beauty is the nature of human beings, especially facial beauty. As the demand for aesthetic surgery has increased tremendously over the past few years, an understanding of beauty is becoming utmost important for the medical settings. Physical beauty of faces affects many social outcomes. The study of facial beauty has attracted efforts of researchers from diverse fields. However, most existing works focus on verifying the relevance between predefined characteristics and facial beauty, and they are far from adequate for developing application systems. Recently, computational facial analysis has been developed rapidly, such as face verification, expression recognition, age estimation, etc. Facial beauty analysis is an emerging topic. This presentation is based on our research work, which explores the secrets of facial beauty with a computational perspective and introduces some potential applications. It also provides the following techniques that are used in our facial beauty analysis: face image processing, including facial landmark extraction, face representation, face image warping, and soft biometrics. We present the method of building computational models of facial beauty in detail, which is useful for automatic facial beauty prediction and face beautification applications. Our methods and previous hypotheses on facial beauty perception are all tested based on large-scale databases. The experimental results of our facial beauty analysis system have shown the superiority of these techniques.

csdzhang@comp.polyu.edu.hk