Abstract

Facial expression analysis is an attractive, challenging and important field of study in facial analysis. Its important applications include many areas such as human–computer interaction, human emotion analysis, biometric authentication, exhaustion detection and data-driven animation. For successful facial expression recognition, the first step is to arrive at an appropriate facial representation from original face image which is a crucial step. This paper, empirically evaluate facial representation using statistical features from the Local Binary Patterns, Simplified local binary mean and Mean based weight matrix for person-independent facial expression recognition. Multiclass SVM is applied systematically for classification. The Japanese female database JAFFE is used for the experiment. Extensive experiments shows that statistical features derived from LBP are effective and efficient for facial expression recognition. Further improved and best results are obtained with SLBM and MBWM features extracted using Multiclass Support Vector Machine classifiers.
11. Facial Expression Analysis.


- Y. Zhang, Q. Ji, Active and dynamic information fusion for facial expression
Person Independent Facial Expression Detection using MBWM and Multiclass SVM


Index Terms

Computer Science
Pattern Recognition

Keywords

Face expression  LBP  SLBM  MBWM  Multiclass SVM