Abstract

Paper contains emotion recognition system based on facial expression using Geometric approach. A human emotion recognition system consists of three steps: face detection, facial feature extraction and facial expression classification. In this paper, we used an anthropometric model to detect facial feature points. The detected feature points are group into two class static points and dynamic points. The distance between static points and dynamic points is used as a feature vector. Distance changes as we track these points in image sequence from neutral state to corresponding emotion. These distance vectors are used for input to classifier. SVM (Support Vector Machine) and RBFNN (Radial Basis Function Neural Network) used as classifier. Experimental results shows that the proposed approach is an effective method to recognize human emotions through facial expression with an emotion average recognition rate 91 % for experiment purpose the Cohn Kanade databases is used.

Index Terms

Computer Science
Image Processing
Keywords
Geometric Method  Anthropometric model  SVM  RBFNN and LK Tracker