Facial expression is the most challenging task in the field of computer vision. In this paper, an automatic facial expression recognition system from a still frontal posed image is presented. This system recognizes the human expression by observing the shape of the mouth. This paper uses color based segmentation followed by template matching for face detection and localization. For mouth segmentation, Canny_Template method is used. Orientation Histogram is used for feature extraction. Feed forward neural network is used as a classifier for classifying the expressions of supplied face into five basic expressions like surprise, neutral, sad, happy and angry. Experiments are carried out on Myanmar Facial Expression Database and give the correct performance in terms of 100% accuracy for training set and 70.71% accuracy for test set.
Automatic Facial expression Recognition System using Orientation Histogram and Neural Network


Index Terms

Computer Science
Artificial Intelligence

Keywords
Facial expressions  Canny_Template  Orientation Histogram  Feed Forward Neural Network