

A hybrid face detection system using combination of appearance-based in the text mining authorship attribution.

Abstract

Face Detection has an important role in many applications such as face recognition, human-computer interactions, and video supervisions. Here there is proposed a hybrid face detection algorithm based on a data mining approach. In training phase, first with using of preprocessing acts on every training image we convert them into edge and non-edge images. Then with the usage of MAFIA algorithm, maximal frequent features of face will be extracted from edge and non-edge image. In detection phase, first by HAAR classifier, candidates will generate for the second classifier. HAAR Classifier, usually detect most of faces in image, but some non-faces are detected as face, by mistake. So that, first, all possible regions of face, detect by HAAR Classifier, and are sent to the face feature classifier, as candidate. In this classifier with the usage of maximal frequent features of face which obtained from training phase, non-faces which were detected as face by mistake in the last phase will be eliminated, so the false positives rate will be decreased significantly

Keyword: Face detection; Hybrid face detection; Data mining.