Fuzzy k-NN and k-NN algorithm for fast infant cues detection

Abstract

In this paper, tremble stage assessment is explained and reviewed for detecting facial changes of patient in a hospital in Neonatal Intensive Care Unit (NICU). The facial changes are most widely represented by eyes and mouth movements. The proposed system uses color images and it consists of three modules. The first module implements skin detection method to detect the face. Secondly, extracts the features of faces by processing the image and measuring certain dimensions face regions. Finally a knn and Fuzzy k- NN classifier used to classify the movements. From the experiments, it is found that the identification rate of reaches 93.30% and 70.25% respectively.