

Emotional Influence of Indian Classical RAAG on Face using the Local Binary Pattern (LBP) Method: An Empirical Study

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Abstract

In this empirical paper, we had observed that Indian classical raaga music such as raag Khamaj and raag Darbari evokes different emotions. Raag Khamaj produces peace, happiness, cheerfulness and Raag Darbari produces sad and Depression mood. According to Indian aesthetics, each poem or musical composition produces a certain rasa (emotion). Local Binary Patterns (LBP) have been well exploited for facial image analysis in the existing work , the LBP histograms are extracted from local facial regions, and used as a whole for the regional description. In this empirical paper we studied LBP Histogram (LBP) bins for the task of facial expression recognition while listening to Indian classical ragas. Our experiments illustrate that the selected LBP bins provide a compact and discriminative facial expression representation. The selected LBP bins will be used to obtain the best recognition performance rate on collected database. The local binary pattern (LBP) operator is defined as a gray-scale invariant texture measure, derived from a general definition of texture in a local neighborhood. Due to its discriminative power and computational simplicity, the LBP texture operator has become a popular approach in various applications, including visual inspection, image retrieval, remote sensing, biomedical image analysis, motion analysis, environment modeling, and outdoor scene analysis .Subjective evaluation shows that Indian classical ragas evokes certain emotions & feelings which can be reflect on the human face and was evaluated using LBP approach.
