

Abstract

A novel feature extraction method for hand gesture recognition from sequences of image frames is described and tested. The proposed method employs higher order local autocorrelation (HLAC) features for feature extraction. The features are extracted using different masks from Grey-scale images for characterizing hands image texture with respect to the possible position, and the product of the pixels marked in white. Then features with the most useful information are selected based on mutual information quotient (MIQ). Multiple linear discriminant analysis (LDA) classifier is adopted to classify different hand gestures. Experiments on the NUS dataset illustrate that the HLAC is efficient for hand gesture recognition compared with other feature extraction methods.