PAPER : Hetrogeneous hand gesture recognition using 3D dynamic skeletal data

Hand gestures come to us naturally. These are the easiest and quickest way of non-verbal communication. The hand gesture recognition has several applications in the different fields of human life. Its role in human computer interaction, sign language translator, virtual environment control, etc is truly non-negotiable. This is the reason that the hand gesture recognition urged popularity as an inspiring field of research. The paper aimed to explore the possibility of hand gesture recognition using 3D dynamic skeletal data of hand. The approach relied on the structure of hand topology to extract the effective descriptors from the gesture sequence. The statistical representation method, Fisher Vector representation and the temporal representation representation method, temporal pyramid were used for the encoding of the descriptors. Finally, an SVM classifier was used for classification of gesture.

The whole paper revolves around the possibility of hand gesture recognition using the skeletal data of hand. The idea of the project 'Identification of 'Mudra Identification' is to identify the classical dance mudras. The point of relying upon skeletal data of hand is a wise idea towards the identification process. The paper relies upon an SVM classifier where the

one-vs-rest strategy was used. That is, classifying a multi classification problem using a binary classification strategy. Also, the additional representations Fisher Vector representation and Temporal Pyramid improves the efficiency of the model.