Paper 1 : Classification of hand gestures using SVM and CNN

Abstract

Indian classical dance such as 'Kathakali' is composed of complex hand gestures, body moments, facial expressions and background music. The story of 'Kathakali' dance Performance is Communicated to audience through hand gestures, facial expression etc... Generally it is very difficult for a Common man to understand the meaning of Kathakali dance drama because of its Complicated hand gesture language structure Due to the Complexities involved in its hand gesture language, it is often difficult to understand Kathakali mudras. The Paper aimed to explore The Possibility of hand gesture recognition using SVM and CNN. In this work, firstly build a dataset of Kathakali

hand gestures and explore different ways to recognize Kathakali dance mudras Performed by artists with the help of machine learning and deep learning techniques. As a Second step, Examine and devise Strategies for data preprocessing to be applied to the generated dataset & finally Study the machine learning and deep learning techniques for classification of hand gestures. ~~The Paper~~ This work Proposed a Support Vector machine and CNN model which classify the images into 24 different classes of mudras and got an accuracy of 40%. The accuracy got is very low because of the collision on the feature extraction results. Compared the Performance of machine learning and deep learning algorithms and results show that deep learning algorithms gave up to 74% accuracy.

The main idea of our Project 'Mudra classification' inquired into the Possibility of identifying mudras

in various dance forms of India and attempts to find the feasibility of identifying the mudra depicted in a classical dance form, and defining its meaning and it is related to one another

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