Abstract

Sign language is used as a communication medium among deaf and dumb people to convey the message with each other. A person who can talk and hear properly (normal person) cannot communicate with deaf and dumb person unless he/she is familiar with sign language. Same case is applicable when a deaf and dumb person wants to communicate with a normal person or blind person. In order to bridge the gap in communication among deaf and dumb community and normal community, lot of research work has been carried out to automate the process of sign language interpretation with the help of image processing and pattern recognition techniques. This paper proposes optimized approaches of implementing the famous Viola Jones algorithm with LBP features for hand gesture recognition which will recognize Indian sign language gestures in a real time environment. The performance analysis of the proposed approaches is presented along with the experimental results. An optimized algorithm has been implemented in the form of an android application and tested with real time data.


Jin, Man Mau. "Real Time Hand detection and gesture recognition system." (2011). Retrieved from City University of Hong Kong, CityU Institutional Repository

Index Terms

Computer Science  Pattern Recognition
Keywords
Indian Sign Language (ISL). American Sign Language (ASL)  Local Binary Pattern
AdaBoost
(LBP)
SIFT
SURF
Viola-Jones.