Abstract

Facial expressions are caused by relaxation and contraction of facial muscles. The facial muscles can be categorised into reliable and unreliable facial muscles, which have been previously successfully captured by a computer system by researchers as Kulkarni et. al, Taigman et. al. and Hyunh et. al. This research aims at studying if (and how much better than previous studies) a Siamese Neural Network architecture, aided by Residual Network, can help in classifying the posed facial expressions as fake or genuine facial expression, keeping the result achieved by Hyunh as the baseline for comparison. SASE-FE dataset was used for this research, which is the same as Hyunh's. The system could accurately classify anger, happiness, sadness and surprise with each having an accuracy of nearly 75%, while for contempt the accuracy was 56% and the same was 61% for disgust.