

Abstract

Facial emotion detection has gained significant attention in recent years due to its wide range of applications, from improving human-computer interaction to enhancing mental health diagnostics. This research presents an innovative approach to facial emotion detection using deep learning techniques. A new method has been proposed to identify facial emotions. The main techniques divide the image into parts, then input the image into a CNN(Convolutional Neural Network). After that, then the image is entered and its features are extracted after inserting them into the Contrast Equalization filter. After that, the images is passed to VGG-16 , and then sent to the SVM (Support Vector Machine) algorithm. After the training process, as a result of the methodology an accuracy of 92.25%.was obtain for the proposed model, trained it on the Fer2013 Dataset, which is the highest accuracy achieved so far, by comparing the results with previous papers.