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# Facial Emotion Recognition Using Deep Learning

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## Abstract

Alternate to word based communication, the human face communicates a lot of information visually. In order to interact with humans and computers, facial expression recognition is necessary. Automated visual recognition systems are useful for understanding human behaviour, spotting mental diseases, and simulating fake human emotions. Online lectures, online interviews, and online buying have all recently incorporated virtual reality and augmented reality based listening capacity testing approaches that take into account facial expressions. This research uses deep learning to identify facial expressions of emotion. Utilising Haar features, three sequential convolution layers are utilised to extract features. Additionally, Support Vector Machine is employed as a non-linear classifier to categorise a variety of emotions, including anger, neutrality, disgust, fear, happiness, and sadness. The project used the FER2013 data set for training and evaluating facial emotion recognition with 94.43% of accuracy.