

## **ABSTRACT**

The Emotion Detection System project is a machine learning-based software application that can detect and classify human emotions based on facial expressions. The system uses computer vision techniques to extract facial features and then employs a deep neural network model to classify emotions such as happiness, sadness, anger, and surprise. The application provides real-time emotion recognition, making it a valuable tool for various applications, such as market research, customer service, and mental health. The system's accuracy is continuously improved through training on a vast database of facial expressions, enabling it to recognize complex emotions accurately. The Emotion Detection System project has the potential to revolutionize the way humans interact with machines, making them more intuitive and responsive to our emotional needs.