**ABSTRACT**

Creating a real-time emotion detection website using Streamlit and Python libraries involves developing an interactive and intuitive platform that analyzes facial expressions to detect emotions instantaneously. This project leverages Streamlit’s simplicity and ease of deployment, combined with powerful computer vision and machine learning libraries like OpenCV, Dlib, and TensorFlow.

The core functionality relies on capturing live video input from a user’s webcam. Using OpenCV, the video stream is processed to detect facial landmarks, which are critical for recognizing expressions. Dlib’s facial landmark detector, in particular, is used to pinpoint key points on the face, aiding in the precise identification of features such as the eyes, nose, and mouth.

Components Implemented:

* Streamlit: Framework
* OpenCV: Computer vision
* Dlib: Facial landmark detection
* TensorFlow/Keras: Emotion recognition model
* Webcam: Video input