Amrita School of Computing

Department of Computer Science and Engineering

Minor Project: 19CSE495

(2020-2024 B.Tech CSE)

1. **Project Title: Deep Learning for Micro Expression Recognition**
2. **Team members:**

|  |  |
| --- | --- |
| Roll No. | Name |
| AM.EN.U4CSE20316 | B SAI SARVAGNA |
| AM.EN.U4CSE20329 | GOUTHAM VIJAY |
| AM.EN.U4CSE20374 | VIGNESH A NAIR |

1. **Abstract**

Micro expression recognition is an interesting and challenging topic particularly as we have interest in computer vision, facial expression analysis and human-computer interaction.

Problem to be addressed is It’s dealing with subtle and transient facial expressions, which can be challenging due to their short duration and low intensity. Designing algorithms and techniques to effectively capture, analyze, and classify these expressions requires advanced image processing, feature extraction, and machine learning techniques.

Problem is relevant as it helps in addressing Subtle facial expressions provide valuable insights into human, they can be indicative of underlying mental health conditions, such as depression, anxiety, or stress and helps in early detection of them.

1. **Motivation**

We have chosen the topic as we want to Develop an automated system that can accurately detect and recognize micro expressions that could have significant implications for emotion detection, lie detection, and non-verbal communication analysis.

Our idea is to improvise the classifiers and provide hybrid as well as optimised classifiers that improves prediction accuracy and overcomes data imbalance, achieving significant results in micro-expression recognition.

Students’ Name and Signature

Guide’s Signature