Project Proposal

Github link: https://github.com/Aakash-2k1/sdai-project

Team Title: –

AI Smart Glass

Team Members: -

1. Aakash Ramachandran – 11568175
2. Thanmayee Akula Ramesh – 11600300
3. Prem Kumar Maddula – 11540134

Abstract

As time passes technology is rapidly increasing, and so do the people who are also getting advanced in technology. Nowadays visually impaired people are experiencing difficulties with day-to-day tasks and are not able to socialize with people. The main reason and the key is recognition of people, object, etc. Wearable Technology is playing a vital role in research, and medical backgrounds, this helps to assist the user in one way or the other. This project presents an AI specifically designed to assist the user to socialize with people easily. The camera identifies the person who is at a certain distance, if the person's face is already stored in the memory card it gives an output in the earphones with the person's name, the distance of the person from the camera, and their emotion. Otherwise, it gives an output saying that there is an unknown person with a specific distance and emotion.

Goals and Objective: -

- **Motivation: –** I have seen a person who is visually impaired who was sitting in a place and couldn't play with anyone. When I approached him, he said that he was visually impaired and couldn't recognise the people near him. That time I thought that we should do something for that having all the technology.

- **Objective: -** The objective is to assist in multiple daily tasks using the advantage of wearable design format. The project of the Blind assistance aims to promote a challenge in computer vision. Such as recognition of people of the surrounding practice by the blind daily.

- **Features: -** Facial Detection
  facial expression
  distance calculation and
  voice output

Reference: -

1. https://ieeexplore.ieee.org/document/9181366
2. https://ieeexplore.ieee.org/document/9742799
3. https://ieeexplore.ieee.org/document/9640715
4. https://ieeexplore.ieee.org/abstract/document/9297553