KONGUNADU

COLLEGE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

NAMAKKAL- TRICHY MAIN ROAD, THOTTIAM

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)

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PROJECT TITLE

GAZE CONTROLLER CURSOR FOR AMPUTEE PEOPLE

ABSTRACT

Differently abled people **(AMPUTEES and PARAPLEGICS),** who lost their own hands. Then, how can they move the cursor and type the words and the sentences in the computer, So as the solution to this problem, Here comes the project: GAZE CONTROLLER CURSOR. You think, In a laptop, there are a lot of applications, data, files, and modules. All these things are only operated by **1 cm** of the cursor. Technological advances have enabled hands-free computer interaction, especially for people with limited hand function, such as amputees and paraplegics.

The proposed model will solve the problems through the development of a voice command, a startup program, and open the application anywhere with the cursor, especially eye and mouth movements. Using advanced image processing technology "OPENCV". **Mediapipe** library **(refine_landmarks)** is one of the features, which is used for mouth and eye movements. Then, **PYAUTOGUI** which is used for the position() function, will return a point named tuple of the mouse cursor's **x and y** positions at the time of the function call. The virtual mouse interface provides comprehensive features such as scrolling, clicking, and typing, improving the experience of users with different needs.

USE CASE: On a computer, normal people move the cursor and type the words and sentences using a mouse and keyboard. But Amputee people can you this Gaze Controller Cursor Technology, they can use this system aimed to give users more independence, better communication, and more participation in the digital world by offering a reliable, versatile, and convenient hands-free interaction system.

Keywords: **OPENCV (cv2), media pipe, refine_landmarks, pyautogui, speech_recognition,Threading time(speed).**