IRIS CONTROLLED OBJECT MOVEMENT

A PROJECT REPORT

Submitted by

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Of

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IN

COMPUTER SCIENCE AND ENGINEERING

CHRIST THE KING ENGINEERING COLLEGE,
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ABSTRACT

Disability is one of the major social problems existing in society. They are deprived of the services and programmes available in the society. The existing system of object movement is by cranes or other machines. It requires the physical input from men which makes the handicapped or paralyzed unable to carry out the work. In this system, the webcam captures the snap shot of the face. It is then compared and authenticated with the already existing and trained data. This enables the user to login to the system. Real Time Iris Recognition Access Scanner scans the person's eyes and produces a digital image. The coordinates of the centroid of the iris is obtained. Here a defined threshold pixel range of eye movement is considered to avoid unwanted movement by the robotic arm. The difference in pixel in the current snapshot from the previous snapshot trigger the eye movement. If the distance is greater than the threshold one, movement takes place, otherwise, filtered. As an interface, the Arduino board is connected to the USB port of the computer. The instructions are sent to the microcontroller on the board. The output of the Arduino board is the instructions for the robot. Robot sends back an acknowledgment and object movement by robotic arm takes place.

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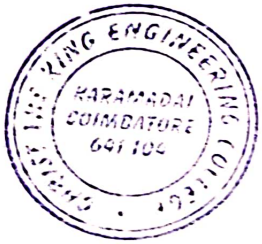
CONCLUSION

In this paper, we propose iris controlled object movement and tracking which is the first and the only project that makes use of iris and face recognition. It makes use of robotic arm for the displacement of the object and its tracking. It not only has applications among physically challenged and paralyzed people but also in industries. This result has been achieved by the use of iris matching, strobed illumination, high-resolution cameras, eye tracking specialized algorithms. It also results in eye-controlled restricted movement in addition to robotic arm operations and robotic arm based tracking. More area of application of this project idea is under research, which adds to the functionality of the existence of the project.



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