Submission Summary

Conference Name
2nd International Conference on Data Science and Network Security (ICDSNS)

Paper ID
1205

Paper Title
Eye Controlled Virtual Mouse

Abstract
The "Eye-Controlled Virtual Mouse" project aims to increase accessibility and usability for people with physical disabilities by providing a new interactive computer. By combining eye-tracking hardware with software algorithms, the system can achieve accurate and intuitive cursor control based on the user's face. This brief describes the intellectual and potential impact of the project, which includes improving the quality of life and independence of people with disabilities and exploring general applications of eye-tracking technology in human-computer interaction. We describe a system that presents a hands-free interface between human and computer. Our system replace conventional mouse in a new way that makes use of human facial features. It uses various image processing methods such as face detection, eye extraction. It uses a typical webcam to capture an input image. Controlling of mouse cursor is obtained by face movement as moving face up, down, left and right and mouse events are controlled through eye blinks, and keyboard events are controlled through hand gestures. To perform these operations different algorithms like Haar Cascade algorithm, Dlib. Our system is mainly aimed for disabled peoples to have effective communication with computer.

Created
5/9/2024, 2:30:26 PM

Last Modified
5/10/2024, 10:28:24 AM

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Submission Files
Paper Publication.docx (187.5 Kb, 5/9/2024, 2:30:21 PM)