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AI Based Virtual Quiz System

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Abstract: *We have suggested an AI-based virtual quiz system that recognises hand gestures and extracts features using a web camera. For students, we have provided Register/Login in this. To take the test, each of them must sign up.To answer the quiz questions in this case, we employed the hand tracking module. This method uses a webcam that is attached to the system to record live footage. Hand segmentation and live video processing are done first. Following segmentation, hand landmarks are tracked to identify hand gestures. The minimal distance between two defined landmarks is determined by comparing the defined gesture in the system with the hand gesture in the live video. As a result, the response will be saved and compared to the model response. The Score is presented at the end of the quiz in percentage form, along with the correct, incorrect, and skipped questions. For those with disabilities, this system is efficient and helpful. Using this cutting-edge gesture recognition technique, the system will shorten the time required for manual exam systems.*

Keywords: Artificial Intelligence, Hand Gesture, Gesture Recognition, Human Computer Interface, CNN Algorithm, MediaPipe, OpenCV, CSV File

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