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Hand Gesture Based Virtual Quiz Game

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Abstract: *We proposed a virtual quiz system based on artificial intelligence that detects hand gestures and extracts functions using a web camera. For students we have given Register/Login here. Everyone on must register to take the test. In this case, we used the manual tracking module to answer the quiz questions. This method uses a web camera connected to the system to record a live image. Manual segmentation and real-time video processing are performed first. After segmentation, hand signs are tracked to detect hand movements. The minimum distance between two defined landmarks is determined by comparing the system-defined \gesture and the real-time video gesture. This results in the response being saved and compared with the template response. Scores are presented at the end of the quiz as a percentage of correct, incorrect and missed questions. For people with disabilities, this system is efficient and useful. Using this state-of-the-art gesture recognition technology, the system reduces the time of manual examination systems.*

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

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