A GESTURE-BASED TOOL FOR STERILE BROWSING OF RADIOLOGY IMAGES

With a wave of our hand, there are a lot of things that we can achieve in our daily lives. But there is only limited that is possible with technology. This is because Humans can recognize sign language with the combination of vision and synaptic interactions with brain. Computers are unable to do the same thus limiting their capabilities. We wish to push the boundary.

With the help of information such as shape, alignment and position of the palm we can obtain certain information. The gestures are of 2 types namely static and dynamic. By examining the contour of the hand, static hand movements can be determined. Analysis of hand motions yields dynamic hand gestures. The issue is the inability to instantly recognise motions without a pause in hand motion. We solve these issues using real-time hand gesture detection. is real-time hand gesture detection makes use of various identification algorithms, processing speed, and picture processing approaches.

In this project, the model is first trained on pictures of various hand motions, such as showing the numbers 1, 2, 3, and 4 with the fingers. The video frame is captured by this model using the built-in webcam. The gesture is recognised by comparing the image captured in the video frame with the pretrained model. We are going to use a robust deep learning model capable of making predictions quickly. Our system shall be able to recognize gestures at various hand angles. It shall also work whether the hand is close to or far away from the camera. The system as a whole shall be very responsive.