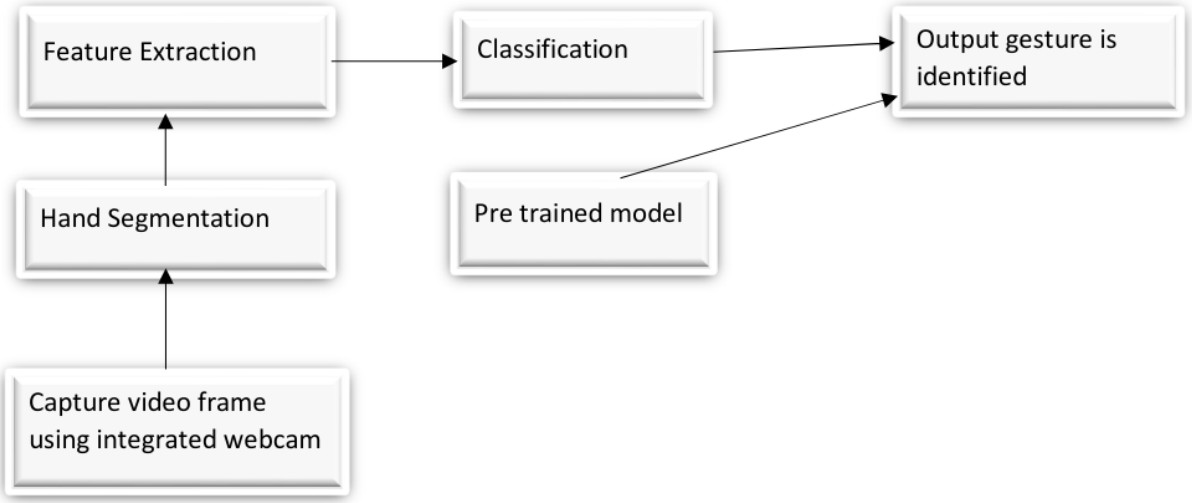
A GESTURE-BASED TOOL FOR STERILE BROWSING OF RADIOLOGY IMAGES

PROBLEM STATEMENT:

Humans have the ability to recognize body and sign language but computers don't have this ability. Humans can recognize sign language because of the combination of vision and synaptic interactions with the brain. To make computers recognize sign language we need to replicate this skill to computers. Through the position and shape of the center of the palm and the fingers we can obtain certain information.

The gesture can be both static and dynamic. Static hand gestures are obtained by analyzing the shape of the hand. Dynamic hand gestures are obtained by analyzing hand movements. The ability to spontaneously identify gestures without delay in hand motion is the problem. Through real-time hand gesture detection, we overcome these problems. Processing speed, image processing techniques and different recognition algorithms are used in this real-time hand gesture detection.



In this project, the model is first pre-trained on the images of different hand gestures, such as showing numbers with fingers as 1, 2, 3, 4. This model uses the integrated webcam to capture the video frame. The image captured in the video frame is compared with the pre-trained model and gesture is identified.