Abstract

The development of human and computer interaction technology is currently growing very rapidly. The physical part of human such as eyes and hand could have a direct role on controlling computer. For example, eyes have a similiar role with mouse, as a pointer controller. Computer interact with human by taking the image of eye ball via webcam. The image is processed to determine the eye's direction. One of methods that could be able to calculate the estimation of eye gaze is Geometry Based Estimation. This method determines the coordinates of the screen are seen by the eye based on the distant of eye and screen, face position, eye position, and radius of the iris. The method through which the coordinate display is seen by the eye will be known. Before count the estimation of eye gaze, the iris tracking process is have to be done first. This research shows how much the accuration of the result calculation of the eye gaze which adjusted with the number of the region of screen that will be seen.

Key Word : *Geometry Based Estimation, Haar-Like Feature, Circular Hough Transform, Gaze Estimation, Eye Tracking*