ABSTRACT

Communication is one of the most important in human life without communication we can not socialize to others. It was also important for people who have limitations in social skills, especially those deaf people. Indonesian sign language system is made for people who do not understand sign language.

With kinect sensor can record body movement (gesture) and processed into Indonesian sign language system. This final project aims to find the accuracy of the data of the word being tested in Indonesia sign language system created by testing the parameters such of the distance, the light intensity as well as the computation time of each word being tested.

Kinect detects images that can be analyzed by several sensors installed in the kinect form of RGB image, depth image, and the Human Skeleton Tracking, with the incorporation of these techniques and are classified by the method of HMM get the optimal data at a distance of 2 meters with the accuracy of 81% and the computing time the average word is 1.94 seconds.

Keyword: Indonesian sign language, Kinect sensor, RGB-D, Human Skeleton Tracking, HMM.