RESEARCH ARTICLE

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Survey on Hand Gesture Recognition Using American Sign Language

Sneha Sharadkumar Jariwala¹, Prof. Neha Parmar²

M.Tech. Student, Dept. of CSE, Parul University, Vadodara, Gujarat, India¹

Assistant Professor, Dept. of CSE, Parul University, Vadodara, Gujarat, India²

Abstract:

Hand Gesture is defined as static movement e.g. making a fist and holding it in certain position is considered as gesture. Complex gesture, fingers can be bent at angles other than zero or ninety degree. It include various forms of pinching, the "okay" sign and many of the gestures used in finger spelling. Dynamic movement such as waving goodbye. Simple gestures are made in 2 ways. First way involves simple or complex gesture and change in position or orientation of the hand such as making a pinching gesture and changing hand position. Second way moving the fingers in some way with no change in position and orientation of hand. e.g.: moving the index and middle finger back and forth to urge someone to move closer. Complex gesture includes finger movement, wrist movement and changes in hand position and orientation. Many signs in American Sign Language are example of gesture. Number of gesture that given recognition system or algorithmic techniques can accurately recognized. 1 to 15 postures and gestures is considered small set, 15 to 25 medium sized and anything over 25 are considered large. Technique for a Human Computer Interface through Hand Gesture is able to recognize 25 Static Gestures from American Sign Language Hand Alphabet. In these there will be using of matlab software is used and there will be different types of images will be captured from the webcam. From there the interactions with system and meaningful information will be easily available.

Keywords — Hand Gesture Recognition, American Sign Language, Gesture Recognition, Kinect Depth .

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