DESIGN AND IMPLEMENTATION OF SIGN LANGUAGE INTERPRETER APPLICATION BASED ON FINGER GESTURE RECOGNITION USING MOTION SENSOR CAMERA

ABSTRACT

This paper describes the implementation of a sign language interpreter application using finger gesture recognition as a concept with a motion sensor camera for input. This study uses Perceptual Computing technology or now called Intel RealSense, a technology from Intel Corporation that can capture the human finger gesture recognition. The application interprets an American Sign Language alphabet gesture into an alphabet text. The goal of this research is to build a sign language interpreter that uses the concept of finger gesture recognition with a motion sensor camera for the input, then test the application with System Effectiveness and User Effort, which is also the research variables in this study. Research data sample included 15 respondents. Result of this research is the application is successfully implemented, 59.87% in accuracy, users assess the application below the standard in the System Effectiveness, and neutral in User Effort to run the application developed.

Keywords: American Sign Language, finger recognition, Perceptual Computing, RealSense, Sign Language Interpreter.