

Hand Detection and Recognition for Malay Sign Language

Authors : Mohd Noah A. Rahman, Afzaal H. Seyal, Norhafilah Bara

Abstract : Developing a software application using an interface with computers and peripheral devices using gestures of human body such as hand movements keeps growing in interest. A review on this hand gesture detection and recognition based on computer vision technique remains a very challenging task. This is to provide more natural, innovative and sophisticated way of non-verbal communication, such as sign language, in human computer interaction. Nevertheless, this paper explores hand detection and hand gesture recognition applying a vision based approach. The hand detection and recognition used skin color spaces such as HSV and YCrCb are applied. However, there are limitations that are needed to be considered. Almost all of skin color space models are sensitive to quickly changing or mixed lighting circumstances. There are certain restrictions in order for the hand recognition to give better results such as the distance of user's hand to the webcam and the posture and size of the hand.

Keywords : hand detection, hand gesture, hand recognition, sign language

Conference Title : ICCCISE 2017 : International Conference on Computer, Communication, Information Science, Engineering

Conference Location : Kuala Lumpur, Malaysia

Conference Dates : February 12-13, 2017