Abstract

Gesture recognition can be said to be the interpretation of human gestures via mathematical models. Gestures can originate from any bodily motion but this paper focuses exclusively on hand gesture recognition. Hand gesture recognition is referred to as a Perceptual User Interface (PUI). A Perceptual User Interface allows Human Computer Interaction (HCI) without the use of a mouse or a keyboard. Gestures are used primarily to interact with devices without any physical contact with the device. Successful gesture recognition is dependent on the accuracy and efficiency of gesture classification. The gestures are classified using dynamic programming, machine learning or deep learning techniques. In all gesture recognition systems, the relevant input data is collected by a number of sensors. A good gesture recognition system uses this input data to classify the gesture accurately and efficiently. Gesture recognition is deployed in a number of fields like in the medical field where is used to make sign language interpretation devices for the vocally impaired, in virtual gaming and in smart home environments.


Index Terms

Computer Science

Pattern Recognition
Keywords

Multi-modal; User Dependent; User Independent; Mixed User.