Abstract

Gesture was the first mode of communication for the primitive cave men. Later on human civilization has developed the verbal communication very well. But still non-verbal communication has not lost its weightage. Such non-verbal communication are being used not only for the physically challenged people, but also for different applications in diversified areas, such as aviation, surveying, music direction etc. It is the best method to interact with the computer without using other peripheral devices, such as keyboard, mouse. Researchers around the world are actively engaged in development of robust and efficient gesture recognition system, more specially, hand gesture recognition system for various applications. The major steps associated with the hand gesture recognition system are: data acquisition, gesture modeling, feature extraction and hand gesture recognition. There are several sub-steps and methodologies associated with the above steps. Different researchers have followed different algorithm or sometimes have devised their own algorithm. The current research work reviews the work carried out in last twenty years and a brief comparison has been performed to analyze the difficulties encountered by these systems, as well as the limitation. Finally the desired characteristics of a robust and efficient hand gesture recognition system have been
described.

References

- Gurjal, P. and Kunnur, K. Real time Hand Gesture Recognition using SIFT. Int. J. of Electronics & Electrical Engg. 2(3) (March 2012), 19–33
Hand Gesture Recognition Systems: A Survey


- Panwar, M. 2012. Hand Gesture Recognition based on Shape Parameters. In Proc. of Int. Conf. on Computing, Communication and Applications


- Ren, Z., Yuan, J and Zhang, Z. 2011. Robust Hand Gesture Recognition Based on Finger-Earth Mover’s Distance with Commodity Depth Camera. In Proc. of the 19th ACM Int. Conf. on Multimedia


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Hand Gesture Recognition Systems: A Survey

- Jeong, M. H., Kuno, Y. and Shimada, N. 2001. Recognition of Shape-Changing Hand Gestures Based on Switching Linear Model. 11th Int. Conf. on Image Analysis and Processing
Recognition


Index Terms

Computer Science

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Keywords

Data acquisition gesture modeling feature extraction hand gesture recognition