

Gesture Sensor Technology for OS Control

Prof. Bajirao Shirole¹, Dikshant N Yerwal², Omshree B Guldagad³, Rohit U Sonawane⁴, Sayali D Bhoir⁵

Department of Computer Engineering¹⁻⁴

Sanghvi College of Engineering, Mhasrul, Warvandi, Nashik, Maharashtra, India

Abstract: *This project describes a novel hand gesture recognition system that utilizes both multi-channel surface electromyogram(EMG) sensors and Web Camera to realize user-friendly interaction between human and computers. Human gesture recognition consists of identifying and interpreting automatically human gestures using a set of sensors (webcam). Therefore, cursor of mouse will move according to hand movements across the screen. The accuracy of the recognition will depend on time spent on user training for high accuracy specific user training is required. We used SVM algorithms and open CV library which sense the gesture by image processing and extraction and desired action performed.*

Keywords: Hand gesture, sensors, Web Camera, electromyogram(EMG), human, computers, natural interaction, human computer interface, OS..

REFERENCES

- [1]. Dr. Paramesh Chari B D et al, "Design of a Gesture Recognition Based Object Gaming", International
- [2]. Journal of Advanced Networking & Applications (IJANA), P.P. 350-354.
- [3]. Chiang Wei Tan et al, "Game-based Human Computer Interaction using Gesture
- [4]. Recognition for Rehabilitation", IEEE 2013, P.P. 344-349.
- [5]. Louis Kratz et al, "Wizards: 3D Gesture Recognition for Game Play Input", 2007, P.P. 207-212.
- [6]. Prof. Yuvraj V. Parkale," Gesture based operating system control", IEEE2012, P.P.318-323.
- [7]. https://www.researchgate.net/publication/234815455_Wiizards_3D_gesture_recognition_for_game_play_input.
- [8]. https://www.researchgate.net/publication/221608109_Hand_gesture_recognition_and_vir_ual_game_control_bas_ed_on_3D_accelerometer_and_EMG_senso_rs.
- [9]. <http://www.ijana.in/Special%20Issue/S78.pdf>.
- [10]. <https://sci-hub.tw/10.1109/IMCTL.2014.7011154>