

Real Time Gesture and Object Detection

Pallavi Arote, Akanksha Gaikwad, Rohini Gorhe, Manisha Shete

Matoshri College of Engineering and Research Centre (MCOERC), Nashik, Maharashtra, India

Abstract: *The project goal is to produce a working system for detecting the objects from given video source. In critical situation this detection will help us in finding a way. In this we will be using different cameras for detection of object. Calculates different parameters from the objects from the objects in the field of computer vision. The problems of detect single object and detect multiple object are not same..For detecting multiple objects, lots of problem can arise due to adrupt object motion, multiple object interaction , drifting of object etc. The main goal of this project is to help deaf and dumb people to communicate with normal people and also it helps normal people to understand their sign language. Through this application deaf and dumb people can easily communicate with normal people.*

Keywords: Sign Language Recognition

REFERENCES

- [1] D. Metaxas. Sign language and human activity recognition, June 2011. CVPR Workshop on Gesture Recognition.
- [2] M. Ranzato. Efcient learning of sparse representations with an energy-based model, 2006. Courant Institute of Mathematical Sciences.
- [3] S. Sarkar. Segmentation-robust representations, matching, and modeling for sign language recognition, June 2011. CVPR Workshop on Gesture Recognition, Co-authors: Bar-bara Loeding, Ruiduo Yang, Sunita Nayak, Ayush Parashar.
- [4] P. Y. Simard. Best practices for convolutional neural networks applied to visual document analysis, August 2003. Seventh International Conference on Document Analysis and Recognition.
- [5] X. Teng. A hand gesture recognition system based on local linear embedding, April 2005. Journal of Visual Language September 2018.
- [6] Chen L, Lin H, Li S (2012) Depth image enhancement for Kinect using region growing and bilateral filter. In: Proceedings of the 21st international conference on pattern recognition (ICPR2012). IEEE, pp 3070–3073
- [7] Vaishali.S.Kulkarni et al., “Appearance Based Recognition of American Sign Language Using Gesture Segmentation”, International Journal on Computer Science and Engineering (IJCSSE), 2010
- [8] Cheok, M. J., Omar, Z., & Jaward, M. H. (2019). A review of hand gesture and sign language recognition techniques. International Journal of Machine Learning and Cybernetics, 10(1), 131-153
- [9] Al-Saffar, A. A. M., Tao, H., & Talab, M. A. (2017, October). Review of deep convolution neural network in image classification. In 2017 International Conference on Radar, 37 International Journal for Modern Trends in Science and Technology Antenna, Microwave, Electronics, and Telecommunications (ICRAMET) (pp. 26-31). IEEE.
- [10] Kiron Tello O’Shea, An Introduction to Convolutional Neural Networks, (2015 November). Research GATE
- [11] <https://www.exastax.com/deep-learning/top-five-use-cases-of-tensorflow/>
- [12] <https://en.m.wikipedia.org/wiki/OpenCV>
- [13] <https://github.com/tzutalin/labelImg>
- [14] [Page 538 <https://www.amazon.com/Deep-Learning-Adaptive-Computation-/, Deep Learning, 2016.>]
- [15] <https://machinethink.net/blog/mobilenet-v2/> by Matthijs