

Hand Sign Language Detection Using Machine Learning

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Abstract: Millions of people around the world suffer from hearing disability. This large number demonstrates the importance of developing a sign language recognition system converting sign language to text for sign language to become clearer to understand without a translator. CNN Algorithm is proposed based on Sign Language. Sign Language may be a language within which we tend to create use of hand movements and gestures to communicate with other people who are chiefly deaf and dumb.

Keywords: Convolutional Neural Network, Sign Language, Machine Learning, Alphabet Predictions

REFERENCES

- [1]. Salih Ertug Ovr , Xuanyi Zhou, "A novel autonomous learning framework to enhance sEMG-based hand gesture recognition using depth information", Biomedical Signal Processing and Control , Science Direct 2021
- [2]. W. K. Wong, Filbert H. Juwono, "Multi-Features Capacitive Hand Gesture Recognition Sensor: A Machine Learning Approach", IEEE SENSORS JOURNAL, VOL. 21, NO. 6, MARCH 15, 2021
- [3]. N. Gopinath, J. ANUJA, S. ANUSHA, V. MONISHA , "A Survey on Hand Gesture Recognition Using Machine Learning", International Research Journal of Engineering and Technology (IRJET) , 2020
- [4]. Omkar Vedak, Prasad Zavre, Abhijeet Todkar, Manoj Patil, "Sign Language Interpreter using Image Processing and Machine Learning", International Research Journal of Engineering and Technology (IRJET), 2019 5. Rupesh Prajapati, Vedant Pandey , "Hand Gesture Recognition and Voice Conversion for Deaf and Dumb", International Research Journal of Engineering and Technology (IRJET) , 2018
- [5]. S. Kausar and M. Y. Javed, "A survey on sign language recognition", Proc. IEEE Frontiers Inf. Technol., pp. 95-98, Dec. 2011.
- [6]. G. Muhammad, M. F. Alhamid and X. Long, "Computing and processing on the edge: Smart pathology detection for connected healthcare", IEEE Netw., vol. 33, pp. 44-49, Nov./Dec. 2019.