

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 3, Issue 1, January 2023

## A Brief Study on Automatic Music Control System using Image Processing

Prof. Sudheer Shetty<sup>1</sup>, Arundhathi S Bhat<sup>2</sup>, Lathesh<sup>3</sup>, Rakshitha R<sup>4</sup>, Ravish<sup>5</sup>

Assistant Professor, Department of Information Science and Engineering<sup>1</sup> Students Department of Information Science and Engineering<sup>2,3,4,5</sup> Alva's Institute of Engineering and Technology, Mijar, Mangalore, Karnataka, India

**Abstract:** The scope of our project is to control a music player using human gestures. This employs a camera along with an embedded system to segment human gestures and convert them to control signals in real-time. With the help of the Music Controller, one can simply wave or do a simple gesture of hand movement in front of the webcam which will in turn switch or pause the particular music track that was being played. Our project mainly focuses on scenarios where we are multitasking that is working on many applications at a time or running various programs at a time on our desktop and along with that listening to music in background that is music being played in one of the windows. At such times if we wish to pause or switch a particular music track we have to make some movements like switching to the music window and doing the desired operation. With the help of Music Controller, one can simply wave or do a simple gesture of hand movement in front of the webcam which will in turn switch or pause the particular music track that was being played.

Keywords: Image Processing.

## REFERENCES

- [1]. Nasser H. Dardas and Nicolas D. Georganas, "Real-Time Hand Gesture Detection and Recognition Using Bagof-Features and Support Vector Machine Techniques," in Ieee Transactions On Instrumentation And Measurement, Vol. 60, No. 11, November 2011 pp. 3592–3593.
- [2]. Ayman El-Sawah, Nicolas D. Georganas, and Emil M. Petriu, "A Prototype for 3-D Hand Tracking and Posture Estimation" in Ieee Transactions On Instrumentation And Measurement, Vol. 57, No. 8, August 2008, pp. 1627–1628
- [3]. Priyanka Mekala, Ying Gao, Jeffrey Fan and Asad Davari, "Real-time Sign Language Recognition based on Neural Network Architecture" in research gate 2011, pp. 197–199.
- [4]. Joyeeta Singha and Karen Das "Indian Sign Language Recognition Using Eigen Value Weighted Euclidean Distance Based Classification Technique" in International Journal of Advanced Computer Science and Applications, Vol. 4, No. 2, 2013 pp 189-191.
- [5]. Deng-Yuan Huang, Wu-Chih Hu, Sung-Hsiang Chang, "Gabor filter-based hand-pose angle estimation for hand gesture recognition under varying illumination" Published by Elsevier Ltd 2010.
- [6]. Antonis A. Argyros and Manolis I.A. Lourakis "Vision-Based Interpretation of Hand Gestures for Remote Control of a Computer Mouse" in Springer-Berlin Heidelberg 2006.
- [7]. Dipak Kumar Ghosh and Samit Ari "Static Hand Gesture Recognition using Mixture of Features and SVM Classifier" in ResearchGate April 2015.
- [8]. Fatih Erden and A. Enis Çetin "Hand Gesture Based Remote Control System Using Infrared Sensors and a Camera" in IEEE Transactions on Consumer Electronics, Vol. 60, No. 4
- [9]. Guillaume Plouffe and Ana-Maria Cretu "Static and Dynamic Hand Gesture Recognition in Depth Data Using Dynamic Time Warping" in Proc. IEEE International Conference.
- [10]. Jong Shill Lee, Young Joo Lee, EungHyuk Lee and Seung Hong Hong, "Hand region extraction and Gesture recognition from video stream with complex background through entropy analysis," in Proc. Int. Joint Conf. IEEE, September 1-5, 2004, pp. 1513–1514.