

## ABSTRACT

Generally, to play songs on the music player is played by pressing the button with the mouse or keyboard. In this final project, music application system design based on real-time webcam. In this simple concept, the system continues to operate as the same as the music player that we know today. The system is able to make the command work, stop, pause, resume, next, and previous songs. The hand form defined by that can automatically run the appropriate commands in the hands of the user form.

This music player application system is used helped by the (software) Matlab R2009a tool. The song format uses \*.WAV. While identifying the form is extracted using the webcam 2 Mpx, which is then processed in real time with the digital processing of images. The identification process of hand is done by taking its colour histogram and edge histogram.

The output form this system is it can run commands: play, stop, pause, resume, next, and previous songs quickly and accurately in accordance with the instructions given in the form of hand based on user feedback. This system has been designed to have a level of recognition accuracy of 78% acquisition of hand images at a distance of 25 cm with an average computing time 1,69 seconds.

**Keywords:** *Music Player, Digital Image Processing, webcam, real time*