

ABSTRACT

Research in the field of music is one of the active fields of research from the past until now and entered into the field of Music Information Retrieval (MIR). The classification of the music genre is also included in the field. Music genre is a categorical label created by humans to describe music. The amount of digital music nowadays makes the classification process manually starting to require a lot of energy and time, so we need a system that can classify musical genres.

For now, the classification of the music genre is still done manually by listening to music that wants to be classified using the human ear, this process takes a lot of time and effort. With this system, it is expected that the classification can be done automatically using a computer without listening manually, this can certainly shorten the time and save energy.

In this study, a system was created that could classify the music genre from the Melspectrogram subsample using the Convolutional Neural Network (CNN). Melspectrogram provides various information about music, for example the frequency used, time, Amplitude and other information. This melspectrogram is used as input for the training process by CNN to get specific patterns from a genre. CNN is one of the Deep Learning methods that is very popular in the last seven years because this algorithm can provide very high accuracy in the process of retrieving information from images. The dataset used is GTZAN. With this method, it is expected that the music genre classification can be done automatically.

The main result of this system is that the system can predict music genres with test accuracy of 63.49% and voting accuracy of 71.87%.

Keywords: *Convolutional Neural Network (CNN), Music Genre, MelSpectrogram, Classification, Subsampling.*