

Title: Bangla song genre recognition using artificial neural network**Author Names:** Mariam Akter, Nishat Sultana, Sheak Rashed Haider Noori ,Md. Zahid Hasan

Abstract: p>Music has a control over human moods and it can make someone calm or excited. It allows us to feel all emotions we experience. Nowadays, people are often attached with their phones and computers listening to music on Spotify, Soundcloud or any other internet platform. Music Information retrieval plays an important role for music recommendation according to lyrics, pitch, pattern of choices, and genre. In this study, we have tried to recognize the music genre for a better music recommendation system. We have collected an amount of 1820 Bangla songs from six different genres including Adhunik, Rock, Hip hop, Nazrul, Rabindra and Folk music. We have started with some traditional machine learning algorithms having K-Nearest Neighbor, Logistic Regression, Random Forest, Support Vector Machine and Decision Tree but ended up with a deep learning algorithm named Artificial Neural Network with an accuracy of 78% for recognizing music genres from six different genres. All mentioned algorithms are experimented with transformed mel-spectrograms and Mean Chroma Frequency Values of that raw amplitude data. But we found that music Tempo having Beats per Minute value with two previous features present better accuracy.

Keywords: Artificial neural network ,Bangla song genre recognition ,Chroma frequency ,Deep learning Mel frequency cepstral ,coefficients ,Tempo

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