**BMNet-5 A Novel Approach of Neural Network to Classify the Genre of Bengali Music Based on Audio Features**

**Alternative title:** Music Recommendation System based on Machine Learning

**Aim:**

The proposed BMNet-5 is based on a neural network designed to predict music genre from audio inputs

**Abstract:**

There are billions of peoples listening millions of music in this world. Now a day’s music plays a vital role in people’s life. It closely related to their emotions. So we are here to provide a solutions for this recommendation based on the user mood. Music Genre Classification (MGC) can be used in a lot of ways to organize and manage music recommendation systems, advertising, and streaming services. But there have been a lot of works on classifying English music using different statistical and machine learning methods.

**Problem Definition:**

The problem is to create a solutions for recommending music based on mood.

**Existing System:**

We there are lots of existing system available in this concept but the accuracy is low. In existing system they have used CNN which is very good for audio and image data’s but still we can able to achieve the good one.

**Proposed:**

There we have used XGBOOST algorithm in proposed system. When its compared with base paper our accuracy is improved better than previous one. We have also tried for realtime implementation.

**Module Description:**

* **Dataset preparation/ analysis**
* **Algorithm implementation**
* **Prediction**

**Dataset preparation/ analysis:**

In this model we will be analyzing the data, preparing and preprocessing the data’s and we will be using this dataset throughout the project the dataset is collected from open source platform. There may be missing values and rows and sometimes we have to label the data’s where it may not be labelled.

**Algorithm:**

In this stage, the collected data will be trained using desired algorithm for training process. After preprocessing the datas we will be extracting desired features and will train and implement algorithm.

**Prediction:**

Preprocessed data are trained and input will be given by the user. The trained model is used to predict. So it recommend the related music based on our mood.

**Hardware Requirements:**

* Hard Disk : 500GB and Above
* RAM : 4GB and Above
* Processor : I3 and Above
* Speakers

**Software Requirements:**

* Operating System : Windows 10 (64 bit)
* Software : Python-3.6.3
* Tools : Anaconda

**Architecture Diagram:**

Music

Feature Extraction

Algorithms Implementation

Model Creation

User input

User interface

Prediction

