## **IJARSCT**



## International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Impact Factor: 7.67

Volume 5, Issue 4, April 2025

## AI-Based Music Recommendation System using Mood Detection with Deep Learning

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Abstract: The design focuses on developing an AI-grounded music recommendation system that utilizes mood discovery through profound literacy ways. It begins with a thorough literature review to understand being systems, followed by data collection, which includes gathering a different dataset of songs and annotating them with mood markers. The audio features are uprooted using libraries like LaRosa, while lyrics are reused using natural language processing. For mood discovery, deep literacy models similar to CNNs for audio and RNNs for lyrics are trained and estimated on their bracket delicacy. The recommendation algorithm combines cooperative littering and content- grounded approaches to give substantiated song suggestions grounded on stoner mood preferences. A stoner-friendly interface is designed to allow druggies to input their moods and admit customized recommendations. The design culminates in expansive testing and confirmation, incorporating stoner feedback to upgrade the system. Attestation and donations will epitomize the methodologies, findings, and implicit challenges, while unborn work may explore more advanced models and fresh features like environment-apprehensive recommendations. This comprehensive approach aims to produce an engaging and practical music recommendation experience grounded on a stoner mood. Music significantly impacts feelings, and traditional recommendation systems frequently fail to deliver substantiated gests grounded on the listener's current mood. The challenge is to develop a sophisticated music recommendation system that can directly describe the mood of music tracks using deep literacy ways and give individualized music recommendations that align with the detected mood. The thing is to enhance stoner satisfaction by offering music that resonates with their emotional state, perfecting both the applicability and enjoyment of the recommendations. People listen to music to match or change their mood, but current music recommendation systems substantially suggest songs grounded on stripes or former listening habits, which do not always align with how you feel at the moment. We want to make a smart system that can i) Understand the Mood of Music and Use deep literacy to figure out if a song is happy, sad, energetic, or relaxing. ii) Suggest Music Grounded on Your Mood Recommend songs that match or ameliorate your current mood, making your listening experience more pleasurable and substantiated. The challenge is to directly describe the mood of different songs and also use this information to suggest music that is your emotional state. This system aims to give better, mood-grounded recommendations to enhance your overall music experience.

DOI: 10.48175/568

Keywords: RNNs



