

Emotion based Music Recommendation System

Harshitha Reddy¹, S. Vinya sri², A. Mahith Reddy³, B. Vyshali⁴

Students, Computer Science and Engineering¹⁻³

Assistant Professor, Computer Science and Engineering⁴

Sreenidhi Institute of Science and Technology, Hyderabad, India

Abstract: *To make it even better, the system lets users give feedback in real-time, so they can help the app suggest songs they like. It also learns over time, getting better at guessing what music someone might enjoy based on how their feelings change and what they listen to. The system can work on different music streaming services too. Today, music plays a big role in how we feel and can make our days better. Usually, music apps suggest songs based on what people like or what they've listened to before. But these methods often don't really understand how our feelings change. This paper introduces a new idea called the Emotion-Based Music Recommendation System (EMRS), which picks songs based on how we feel right at that moment. Tests show that EMRS makes people happier and more engaged with their music compared to regular music recommendation systems. This new idea could really help with mental health, stress relief, and making music more personal and enjoyable. This system uses special technology to understand our emotions. It looks at our facial expressions, the tone of our voice, and even things like our heart rate to figure out how we're feeling. It uses smart computer programs called deep learning models to sort our feelings into groups like happiness, sadness, anger, or calmness. Then, it connects these feelings to music that fits those emotions using a special method that combines different ways of finding song recommendations.*

Keywords: Emotion-based music recommendation, affective computing, mood-based playlist generation, real-time emotion detection, facial expression recognition, deep learning, CNN-RNN hybrid model, AI-driven music recommendation, collaborative filtering, content-based filtering, personalized music experience, multimodal emotion recognition, human-computer interaction

