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## **Emotion Based Music Recommendation System**

Shubham Kumar<sup>1</sup>, Aman Ahmad Khan<sup>2</sup>, Mohith Manoj Mudaliyar<sup>3</sup>, Anurag Mundada<sup>4</sup>

UG Students, Department of Computer Engineering<sup>1,2,3,4</sup> Sinhgad Institute of Technology, Lonavala, Maharashtra, India

Abstract: We describe a music recommendation system based on emotion analysis in this research that tries to address this problem by giving personalized music choices based on individual emotions. Our system analyses user's emotions via image processing and music information to create accurate and diverse recommendations using content-based filtering approach. To obtain and convert relevant data for successful recommendation creation, we use data collecting and pre-processing approaches. The system's performance is assessed using standard criteria such as accuracy metrics and mean average errors, with a user-friendly interface and intuitive user experience being prioritized. Our mission is to improve music discovery by allowing users to discover new songs, artists, and genres, as well as to build a deeper relationship between users and their favourite songs.

Keywords: Emotion analysis, Image processing, Music recommendation system, Convolutional Neural Networks, Deep Learning

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