RAJIV GANDHI INSTITUTE OF TECHNOLOGY

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DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

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Novel Audio Features For Music Emotion Recognition

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<u>CERTIFICATE</u>

This is to certify that this report entitled "Novel audio features for music emotion recognition" is an authentic report of the seminar done by V ADARSH (REG NO: KTE18CS057) during the academic year 2022-23, in partial fulfillment of the requirement for the award of B.Tech Degree in Computer Science and Engineering of Kerala Technological University, Thiruvananthapuram.

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ABSTRACT

 The advanced music emotion recognition is a state-of-the-art proposing novel emotionally-relevant audio features. Reviewed all the existing audio features implemented in well-known frameworks and their relationships with the eight commonly defined musical concepts. This knowledge helped uncover musical concepts lacking computational extractors, namely related with musical texture and expressive techniques. To evaluate , a public dataset of 900 audio clips, with subjective annotations following Russell's emotion quadrants were used. The existent audio features (baseline) and the proposed features (novel) were tested using 20 repetitions of 10-fold cross-validation. Adding the proposed features improved the F1-score to 76.4% (by 9%), and results uncovered interesting relations, namely the weight of specific features and musical concepts to each emotion quadrant, and warrant promising new directions for future research in the field of music emotion recognition, interactive media, and novel music interfaces.