



**RESEARCH ARTICLE**

## **Feature Extraction and Classification of Emotions in Wave Files Using Crossbreed Algorithm**

**Aastha Joshi<sup>1</sup>, Rajneet Kaur<sup>2</sup>**

<sup>1</sup>Department of Computer Science and Engineering Sri Guru Granth Sahib World University,  
Fatehgarh Sahib, Punjab, India

<sup>2</sup>Department of Computer Science and Engineering Sri Guru Granth Sahib World University,  
Fatehgarh Sahib, Punjab, India

<sup>1</sup> [joshiaastha10@yahoo.com](mailto:joshiaastha10@yahoo.com); <sup>2</sup> [rosy.rajneet@gmail.com](mailto:rosy.rajneet@gmail.com)

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***Abstract— The importance of automatically recognizing emotions in human speech has grown with the increasing role of spoken language interfaces in human-computer interaction applications. In this paper, emotion classification method based on hybrid of SVM and HMM algorithm is presented. Four primary human emotions, including anger, aggressive, happiness and sadness are investigated. For speech emotion recognition, we extracted 15 features to form the feature vector. Extracted features were sent into the improved crossbreed algorithm (hybrid of HMM & SVM) for classification and recognition. Results show that the selected features are robust and effective for the emotion recognition and give better accuracy compared to individual SVM & HMM classifiers.***

***Key Terms: - SER System; features extraction; SVM & HMM; GA algorithm***

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