Abstract

Emotion recognition from speech has developed as a recent research area in Human–Computer Interaction. The objective of this paper is to use a 3-stage Support Vector Machine classifier to classify seven different emotions present in the Berlin Emotional Database. For the purpose of classification, MFCC features from all the 535 files present in the database are extracted. Nine statistical measurements are performed over these features from each frame of a sentence. The linear and RBF kernels are employed in hierarchical SVM with RBF sigma value equal to one. For training and testing of data, 10-fold cross-validation is used. Performance analysis is done by using the confusion matrix and the accuracy obtained is 68%.

References

- Alexander I. Iliev, Michael S. Scordilis, Joao P. Papa and Alexandre X. Falcao, 2010,”Spoken emotion recognition through optimum-path forest classification using glottal
features”, Computer Speech and Language 24, pp. 445 - 460.


Index Terms

Computer Science
Signal Processing
Keywords
Speech Emotion Recognition  MFCC  SVM  RBF  Linear Kernel