World Academy of Science, Engineering and Technology International Journal of Electrical and Computer Engineering Vol:9, No:02, 2015

Musical Instruments Classification Using Machine Learning Techniques

Authors: Bhalke D. G., Bormane D. S., Kharate G. K.

Abstract : This paper presents classification of musical instrument using machine learning techniques. The classification has been carried out using temporal, spectral, cepstral and wavelet features. Detail feature analysis is carried out using separate and combined features. Further, instrument model has been developed using K-Nearest Neighbor and Support Vector Machine (SVM). Benchmarked McGill university database has been used to test the performance of the system. Experimental result shows that SVM performs better as compared to KNN classifier.

Keywords: feature extraction, SVM, KNN, musical instruments

Conference Title: ICCDS 2015: International Conference on Circuits, Devices and Systems

Conference Location : Kuala Lumpur, Malaysia **Conference Dates :** February 12-13, 2015