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Distinctive Features for Classification of Respiratory Sounds between Normal and Crackles Using Cepstral Coefficients (Conference Paper)

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Abstract

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Classification of respiratory sounds between normal and abnormal is very crucial for screening and diagnosis purposes. Lung associated diseases can be detected through this technique. With the advancement of computerized auscultation technology, the adventitious sounds such as crackles can be detected and therefore diagnostic test can be performed earlier. In this paper, Mel-frequency Cepstral Coefficient (MFCC) is used to extract features from normal and crackles respiratory sounds . By using statistical computation such as mean and standard deviation (SD) of cepstral based coefficients it can differentiate between crackles and normal sounds . The result shows that the first three statistical values of SD of coefficients provide distinctive feature between normal and crackles respiratory sounds . Hence, MFCCs can be used as feature extraction method of respiratory sounds to classify between normal and crackles as screening and diagnostic tool. © 2018 IEEE.

SciVal Topic Prominence

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Author keywords

Crackles sound | Features | MFCC | Statistical computation and respiratory sounds

Indexed keywords

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