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Abstract Details

Title: Modeling Speaker Specific Features for Automatic Text Independent Speaker Tracking System using Support Vector Machines (SVMs)

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Abstract: Speaker indexing (tracking) is the process of following who says something in a given speech signal. In this paper, we propose a new set of robust prosodic features for automatic text-independent speaker indexing system. LP analysis is used to extract the prosodic information from the source speech signal. This prosodic information is speaker specific. In this approach, instead of capturing the distribution of feature vectors correspond to vocal tract system of the speakers, the time varying speaker-specific prosodic characteristics are captured using Linear Prediction (LP) residual signal of the given speech signal. MFCC features are extracted from the source speech signal, which contains prosody and speaker specific information. In this paper, we propose effective modeling of prosodic features using support vector machine.

Keywords: Speaker Indexing, Prosodic Feature, LPC, MFCC, SVMs.