



RESEARCH ARTICLE

SPEAKER RECOGNITION AND AUTHENTICATION

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Abstract— In today's society, highly accurate personal identification systems are required. Passwords or pin numbers can be forgotten or forged and are no longer considered to offer a high level of security. The use of biological features, biometrics, is becoming widely accepted as the next level for security systems. Speaker Recognition and Authentication is a method of identifying persons from their voice. Speaker-specific characteristics exist in speech signals due to different speakers having different resonances of the vocal tract; these features are extracted from the voice of the speaker and used for the recognition of individual speaker. In this paper we present a real-time text dependent speaker recognition and authentication system which serve as intermediary step towards the implementation as an embedded system. Process is based on computing the Mel Frequency Cepstral Coefficients and the derived Dynamic Coefficients, while classifying features using a Dynamic Time Warping approach.

Key Terms: - Cepstral analysis; Delta Coefficients; real-time processing; Dynamic Time Warping

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