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Analysis of two adjacent articulation Quranic letters based on MFCC and DTW (Conference Paper)

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Abstract

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Reciting al-Quran in the correct way is an obligatory duty for Muslims, and therefore learning al-Quran is a continuous education until the correct recitation is achieved. It is important to learn Tajweed rules to master the recitation of Quranic verses. Moreover, mastering the pronunciation of Arabic sounds is the first and key step to achieve accurate recitation of al-Quran. The rules were guided by the Islamic Scholars in fields related to al-Quran from their knowledge and experiences. Very limited researches were found in the perspective of sciences and engineering. In this paper two Quranic letters (^^d0 and ^^d2) that are articulated from adjacent points of articulation were analyzed using Mel- frequency coefficient analysis . MFCCs matrices were calculated then compared using the dynamic time warping DTW technique to calculate the similarity matrices and find the similarity distance. Results show that letters from the same point of articulation have less similarity distance compared to the letters from different point of articulation . © 2018 IEEE.

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