Digital speech watermarking for anti-spoofing attack in speaker recognition

ABSTRACT

This paper presents new method for improving the security of speaker recognition in case of spoofing attack. In the proposed technique, digital speech watermarking has been applied on speech signal to increase robustness. To achieve this purpose, watermark is embedded in claimed signal at transmission side and then it is sent through the unsecure channel. In receiver side, watermark is extracted as proof of authentication. The results shows that digital speech watermarking can successfully apply for anti-spoofing attack purposes because the quality of the speech signal is not significantly degraded by watermark.

Keyword: Digital speech watermarking; Speaker recognition; Spoofing attack