

AUDIO CLASSIFICATION BASED ON PERCEPTUAL QUALITY FOR LOW OR MEDIUM BIT RATES

ABSTRACT

The quality of encoded signals can be improved by reclassifying AUDIO signals carrying non-speech data as VOICE signals when periodicity parameters of the signal satisfy one or more criteria. In some embodiments, only low or medium bit rate signals are considered for re-classification. The periodicity parameters can include any characteristic or set of characteristics indicative of periodicity. For example, the periodicity parameter may include pitch differences between subframes in the audio signal, a normalized pitch correlation for one or more subframes, an average normalized pitch correlation for the audio signal, or combinations thereof. Audio signals which are re-classified as VOICED signals may be encoded in the time-domain, while audio signals that remain classified as AUDIO signals may be encoded in the frequency-domain.

Figure 1