ADAPTION OF A PREDICTION MODEL FOR NOISY SPEECH QUALITY ASSESSMENT

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ABSTRACT

The objective model according to ETSI EG 202 396-3 [1, 2] was developed for predicting speech, noise and global quality of noisy speech signals for wide- and narrowband terminals according to ITU-T recommendation P.835 [3]. Today's signal processing capabilities of modern terminals (mobiles, smartphones) have been rapidly developed in the last years, even 2-channel-microphone noise reduction solutions are currently state of the art. In result, a much higher speech and noise quality can be achieved with these devices than in the past. This work describes a way to adapt the narrowband mode of the model to this new high quality range which could not be covered within the development in 2007 (narrowband extension of [1]) also taking into account a higher SNR ranges. The work conducted shows that only minor adaptations of the method described in [1] are required to significantly improve the prediction performance. It can be shown that the adapted model shows an excellent backward compatibility to the old databases used for training and validation.