

A NOVEL SPECTRAL CONVERSION BASED APPROACH FOR NOISY SPEECH ENHANCEMENT, INTERNATIONAL JOURNAL OF INFORMATION AND ELECTRONICS ENGINEERING

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TÓM TẮT:

Present noisy speech enhancements algorithms are efficiently used for additive noise but not very good for convolutive noise as reverberation. And even for additive noise, the estimation of noise, when only one microphone source is provided, is based on the assumption of a slowly varying noise environment, commonly assumed as stationary noise. However, real noise is non-stationary noise, which difficult to be efficiently estimated. Spectral conversion can be used for predicting the vocal tract (spectral envelope) parameters of noisy speech without estimating the parameters of the noise source. Therefore, it can be applied to a general speech enhancement model, for both stationary and non-stationary additive noise environment, as well as convolutive noise environment, when only one microphone source is provided. In this paper, we propose a spectral conversion based speech enhancement method. The experimental results show that our method outperforms traditional methods.