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论文

基于特征空间分解与融合的语音情感识别

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摘要：

提出了一种语音情感识别中特征空间的优化方法。针对情感类别两两之间的区分度，优化了情感对各自的特征空间，考察了多类分类器分解为两类分类器的方法，采用置信度判决融合的方法进行两类分类器组的重组，实验中比较了单个多类分类器和两类分类器组的识别性能。结果表明，在同等条件下性能提升了8个百分点以上，对多类分类器进行分解，优化每个情感对各自的特征空间，并进行融合的方法适合语音情感识别，对特征空间的优化效果显著。

关键词： 语音情感识别 特征优化 判决融合

Speech Emotion Recognition Based on Decomposition of Feature Space and Information Fusion

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Abstract:

A method of optimizing feature space for speech emotion recognition is proposed. To achieve better classification between each emotion class; feature space of each pair of emotions were optimized respectively; decomposition of multi-class classifier into two-class classifiers was studied; a decision fusion technique was introduced to re-compose the two-class classifier set; recognition results of multi-class classifier and two-class classifier set were compared in a computer experiment. The results show, recognition rates were improved more than 8 percent under identical environments. The method in this paper， decomposition of multi class classifier， optimizing feature space of each pair of emotions and decomposition using decision fusion algorithm， is suitable for speech emotion recognition and effective in optimization of feature space.

Keywords: speech emotion recognition feature optimization decision fusion

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