Spectrogram sebagai fitur untuk convolutional neural network dalam pengembangan pengenal wicara bahasa indonesia berbasis hidden markov model = Spectrogram as a feature for convolutional neural network in the development of hidden markov model based bahasa indonesia speech recognition / Agung Santosa

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Deskripsi Lengkap: https://lib.ui.ac.id/detail?id=20414573&lokasi=lokal

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Abstrak

[ABSTRAK

Pesatnya perkembangan Deep Learning akhir-akhir ini juga menyentuh ASR berbasis HMM, sehingga memunculkan teknik hibrid HMM-ANN. Salah satu teknik Deep Learning yang cukup menjanjikan adalah penggunaan arsitektur CNN. CNN yang memiliki kemampuan mendeteksi local correlation sesuai untuk digunakan pada data spectrum suara. Spectrogram memiliki karakteristik local correlation yang nampak secara visual. Penelitian ini adalah eksperimen penggunaan spectrogram sebagai fitur untuk HMM-CNN untuk meningkatkan kinerja ASR berbasis HMM. Penelitian menyimpulkan spectogram dapat digunakan sebagai fitur untuk HMM-CNN untuk meningkatkan kinerja ASR berbasis HMM.

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ABSTRACT

The latest surge in Deep Learning affecting HMM based ASR, which give birth to hybrid HMM-ANN technique. One of the promising Deep Learning technique is the implementation of CNN architecture. The ability of CNN to detect local correlation make it suitable to be used for speech spectral data. Spectrogram as a speech spectral data has local correlation characteristic which is visually observable. This research is an experiment to use spectrogram as a feature for HMM-CNN to add to the performance of HMM based ASR. This research found that spectrogram is indeed can be used as a feature for CNN to add to the performance of HMM based ASR., The latest surge in Deep Learning affecting HMM based ASR, which give birth to

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