

## عنوان مقاله:

CT image denoising based on sparse representation using adaptive domain selection and adaptive regularization

## محل انتشار:

پنجمین کنفرانس ملی مهندسی برق و مکاترونیک ایران (سال: 1398)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

Low-dose CT scan images reduce risk of absorbing radiation in the imagery procedure, but it results in degraded images. This work aims to improve low-dose CT image quality through dictionary learning based on denoising method. Experimental result show that the proposed new method suppresses noise through reconstructing the image by using adaptive sparse domain and adaptive regularization. Proposed new method suppresses the noise while maintaining the diagnostic details. We calculated psnr (peak of snr) about 35.69db and compared it with analytical dictionaries that are fixed with regards to the nature of the image using stationary basis functions which known as an adaptive dictionary called K-SVD method and psnr calculated about 33.92db, which shows the robustness of the proposed method.

## کلمات کلیدی:

CT scan imagery, Sparse Representation, image denoising, Dictionary Learning

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/988419>

