عنوان مقاله:

A deep learning-based method for detecting Covid-۱۹ in chest X-ray images

محل انتشار:

ششمین همایش بین المللی مهندسی فناوری اطلاعات کامپیوتر و مخابرات ایران (سال: 1401)

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خلاصه مقاله:

This study aims to diagnose COVID-۱۹ using CT images and deep learning algorithms. First, we use wavelet transformation in combination with fuzzy logic to provide a new approach to removing the noise of CT images. Then we segmented lung images by the proposed combined global and local threshold method. In this way, lung regions from CT images can be segmented successfully. In the next step, features and classification will be extracted. AlexNet is used to extract features, while a Support Vector Machine (SVM) is used for classification. With ۹۹.۸% accuracy, three classes of data are classified: COVID-۱۹, Viral Pneumonia, and Normal. In comparison with previous methods, the proposed method shows superior classification performance.

کلمات کلیدی:

(COVID-۱۹, Convolutional neural networks, AlexNet, lung segmentation , Support vector machine (SVM

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