**عنوان مقاله:**

Alzheimer's Disease Detection By ConvoloutionalNeural Networks Algorithm

**محل انتشار:**

شانزدهمین کنفرانس بین المللی فناوری اطلاعات، کامپیوتر و مخابرات (سال: 1401)

تعداد صفحات اصل مقاله: 6

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**خلاصه مقاله:**

In recent years, with the increase in life expectancy globally, the diagnosis of Alzheimer's disease (AD) has become very important. If mild cognitive impairment (MCI) develops, the patient's mental abilities are irreversibly impaired, leading to Alzheimer's disease and dementia. This disorder has received special attention from many researchers;Because by diagnosing it in the early stages, its progression can be stopped, and treatment can be taken. Common ways to diagnose the disease are biochemical tests and psychological tests. One of the proposed approaches for diagnosing Alzheimer's disease is the analysis of Magnetic resonance imaging (MRI) used to study changes in the structure of the human brain. In this paper, brain magnetic resonance images (MRI) are first pre-processed using the SPM toolbox, and then the brain's gray matter (GM) is segmented and given as input to the CNN algorithm. This article uses the ADNI dataset. The results of this test show that we were able to classify the three categories of normal control (NC), Alzheimer's disease (AD), and mild cognitive impairment (MCI) With an accuracy of over ۹۹%.

**کلمات کلیدی:**

Convolutional Neural Network(CNN), Alzheimer's Disease, Mild Cognitive Impairment (MCI), Normal Control (NC), (Brain Magnetic Resonance Imaging (MRI

**لینک ثابت مقاله در پایگاه سیویلیکا:**

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