



# Schizophrenia Detection Using Deep Learning Techniques

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**Abstract:** A severe mental illness called schizophrenia affects, 1 percent of people worldwide. Early detection is essential for effective treatment and management of this disease. Deep learning methods have shown the potential to detect and diagnose, multiple illnesses, including schizophrenia. For example, convolutional neural networks (CNN) are deep learning techniques that researchers have used in recent years to analyze magnetic resonance imaging (MRI) images of the brain to find patterns suggestive of schizophrenia. These techniques can detect small changes in brain anatomy that cannot be detected by the naked eye. Using deep learning techniques to detect schizophrenia offers the opportunity to improve the early detection and diagnosis of this debilitating condition, potentially leading to better treatment and management of its sufferers. This article provides an overview of the various techniques used to detect schizophrenia.

**Keywords:** Schizophrenia, EEG, CNN, SPWVD-CNN

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