

**Abstract**

Depression is a serious mental illness. Depression is usually characterized by feelings of sadness, hopelessness, anxiety, restlessness, and even loss of life. However, not everyone who experiences depression can get professional treatment. If depression is left unchecked, it can worsen the mental health conditions experienced by a person. Social media, one of which is the increasingly popular twitter can be utilized to help deal with the problem of undetected mental illness. Based on tweets made by a person twitter social media can be one of the sources to detect depression using the XLNet method. XLNet is one of the NLP (Natural Language Processing) techniques based on machine learning models on text. Based on several tests that have been carried out during the research such as testing various tuning hyperparameters with different values on the XLNet model, it achieves a good performance value with an average accuracy value of 93.33%.

**Keywords: Depression, Twitter, Social Media, XLNet, NLP**