

INFORMATICS INSTITUTE OF TECHNOLOGY In Collaboration with

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DepDetect : Detection of Depressive Sinhala Comments in Social Media

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Abstract

Depression has become a major and most common mental illness among the global community. Although it is a treatable disease most of the depressive people won't diagnose the illness at its early stage. As for the worst case, suicidal rate has been rapidly increased globally and depression is one of the roots caused to increase the suicidal rate. Majority of the depressed people have been indentified recently, are young people. Since social media is quite popular among the young community and most of them are tend to share everything intentionally or unintentionally even their personal matters on social media, it would be a best platform to reveal one's inner thoughts.

"DepDetect" is a new approach to indentify depressive posts based on texts and it focuses on texts which are written in Sinhala language. This application is applicable only for Twitter platform. "DepDetect" is a project based on natural language processing and machine learning. Support Vector Machines (SVM) supervised learning algorithm was used in this system to classify the text based posts. If the tweet is containing depressive contents, it will be indentify as a "depressive tweet" otherwise the tweet will be indentify as a "non-depressive" tweet. Target audience of this project is social media users who use Sinhala Language when posting contents on social media. "DepDetect" was tested with live data and achieved $70_{\frac{9}{0}}$ f accuracy.

Keywords:

Depression Detection, Machine Learning, Natural language Processing, KNN