Depression Detection System Using Real-Time And Social Media Data

G.C.J. Jayasinghe[1], I.P.M.A. Shamika[1], Dissanayake G.A.I.P[1], Ranaweera R.M.I.A[1], and Pradeepa Senani Bandara[1]

[1]Department of Information System Engineering, Sri Lanka Institute of Information Technology, Sri Lanka.
IT19118550@my.sliit.lk, IT19223490@my.sliit.lk, IT19154718@my.sliit.lk, IT19219158@my.sliit.lk, pradeepa.b@sliit.lk

Abstract

The main objective of this study is to measure the depression level of the participants. The guidance will be provided by the psychiatrist to understand the parameters. The end system has been implemented to measure depression at a live session with a pre-designed questionnaire set. During the session time, the behavior of the participant has been captured through audio and video method. The long-term depression level is measured by analyzing the social media behavior of the participant within a month. Convolution Neural Network (CNN) and Natural Language Processing (NLP) are used to analyze the video, audio and text data. To analyze the results The Beck Depression Inventory (BDI II) scale will be utilized. The accuracy of the output results measured is high as the individual subcomponents are analyzed separately and then predict to a single result.

Keywords

Intelligence Quotient, Natural Language Processing, Convolution Neural Network