

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 3, November 2022

## **Automatic Level Depression Detection**

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**Abstract:** Depression is the most comprehensive mood ailment that has a notable influence on mental health as well as hindrances in daily life. Machine learning models have contributed to the field of emotion detection in all areas including audio, visual and internet based text data. The idea directs at developing a machine learning based model utilising images and video as an input, to analyze the level of depression among users. Based on the analyzed features the individual will be classified into either of the following depression categories: Minimal, Mild, Moderate, Severe. In the process of depression level detection, the two crucial components are video input and the Beck Depression Inventory II. The solution generates as a result of the correlation between emotion vector and inventory vector represented using visual graphics.

**Keywords:** Depression Detection, Machine Learning, Convolutional Neural Network, Beck Depression Inventory-II, Correlation, Facial Expressions.

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## Volume 2, Issue 3, November 2022

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