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| YESHWANTRAO CHAVAN COLLEGE OF ENGINEERING, NAGPUR.  (An autonomous Institution Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)    DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING    “**Recognizing stages of Depression & Optimizing through Guided Imagery**”    By- Nikita P. Giradkar |

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| **Abstract:**This research addresses the underdiagnosis of depression, exacerbated by societal stigma and limited diagnostic tools. It pioneers a progressive method for early detection, leveraging confidential data analysis and state-of-the-art machine learning algorithms. Focusing on questioning data, including facial expressions and behavior, the study aims to establish a robust model for identifying different depression stages. The envisioned outcome is a non-intrusive, cost-effective, and timely means of intervention, potentially revolutionizing mental health detection and contributing to improved outcomes through proactive measures. | | | |
| **Introduction:**  This project unfolds the historical narrative of depression, tracing its evolution across cultures and eras, from supernatural attributions to modern diagnostic models. Depression's intricate interplay of biological, psychological, and social factors is explored, reflecting changing societal attitudes and ongoing efforts to reduce stigma. Current research initiatives employ advanced technologies and diverse treatments, emphasizing personalized medicine and holistic interventions. Our project, situated within this landscape, focuses on the multifaceted stages of depression, introducing Guided Imagery as a transformative tool. By delving into the nuanced emotional landscape and offering targeted interventions, this exploration aims to contribute to a broader understanding of mental health, reduce stigma, and empower individuals on their journey to emotional well-being. | **Methodology:** | | **Proposed Architecture:** |
| **Conclusion and Future scope:**  **Conclusion:**  The integration of a Dart and Flutter-based depression assessment app demonstrates a commendable commitment to mental health awareness. The user-friendly interface, secure login/signup functionalities, and a comprehensive questionnaire contribute to a holistic approach to mental health evaluation. Guided imagery as an intervention reflects a nuanced perspective, emphasizing personalized care tailored to different depression stages.  **Future Scope:**  The app's future holds promise with potential enhancements. Integrating machine learning for personalized insights, collaborating with professionals, and real-time monitoring via wearables could elevate diagnostic capabilities. Expanding features for support groups, educational resources, and gamification elements may transform the app into a comprehensive mental health hub, contributing significantly to holistic well-being and early intervention. | | **References:**   * Kuhaneswaran A/L Govindasamy et al, Depression Detection Using Machine Learning Techniques on Twitter Data. ©2021 IEEE * Nafiz Al Asad et al. Depression Detection by Analyzing Social Media Posts of User. In 2019 IEEE * Zhiyong wang et al. Recognition of Audio Depression Based on Convolutional Neural Network and Generative Antagonism Network Model. Digital Object Identifier 10.1109/ACCESS.2020.2998532 IEEE * Hanadi Solieman et al. The Detection of Depression Using Multimodal Models Based on Text and Voice Quality Features. In 2021 IEEE * Yan Ding et al. A Depression Recognition Method For College Students Using Deep Integrated Support Vector Algorithm. Published In 2020 IEEE * Young-Shin Lee 1 and Won-Hyung Park 2, Diagnosis of Depressive Disorder Model on Facial Expression Based on Fast RCNN, Diagnostics 2022, 12, 317 * Guo, W et al. “Deep neural networks for depression recognition based on facial expressions caused by stimulus tasks,” in 2019 IEEE ) | |