**INTRODUCTION**

In an era characterized by the convergence of technology and healthcare, mental health support is undergoing a transformative evolution. The project "AI-POWERED DEPRESSION DETECTION USING CHATBOT AND LIVE VIDEO FACIAL ANALYSIS" represents a pioneering endeavor at the intersection of artificial intelligence, machine learning, and mental health care. Depression, a global mental health challenge, demands innovative solutions for early detection and timely intervention. This project embarks on a mission to harness cutting-edge technologies to provide accessible, non-intrusive, and efficient support for individuals experiencing depression.

Depression, a prevalent and often debilitating mental health condition, affects millions of people worldwide. The timely identification of depression is a critical factor in improving outcomes and reducing the burden on healthcare systems. In this context, the fusion of AI and machine learning with real-time data analysis presents a promising avenue. By integrating facial expression analysis through live video streams with natural language interactions via chatbot interfaces, this project aspires to create a comprehensive and sensitive depression detection system. This system could potentially revolutionize the way we approach mental health support.

Furthermore, the project builds upon a foundation of extensive data, drawing insights from the rich landscape of social media data, particularly Twitter tweets related to depression. Leveraging this diverse dataset, the system will employ a range of supervised machine learning algorithms, including support vector machines, decision trees, and neural networks, to craft a powerful and precise depression detection model. As technology continues to reshape the contours of healthcare, this project underscores the importance of ethics and user privacy, as well as the potential to make mental health support more accessible and effective. In this journey towards the intersection of technology and mental health, the "AI-POWERED DEPRESSION DETECTION USING CHATBOT AND LIVE VIDEO FACIAL ANALYSIS" project stands as a beacon of innovation and hope for a brighter future in mental health care.