International Journal of Scientific Research and Engineering Development-– Volume 9 Issue 3, May-June 2026
Available at www.ijsred.com

RESEARCH ARTICLE OPEN ACCESS

AI Based Mental Wellness Campion

Rajashri Akubattin*, Shoaib Inamdar*,jyoti Khandekar*, Prakash Kale*,Aishwarya Hosale
*(CSE, DBATU/A.G Patil Institute Of Technology Solapur, Email: rajashriakubattin11@gmail.com)
*(CSE, DBATU/A.G Patil Institute Of Technology Solapur, Email: shoaibinamdar14@gmail.com)
*(CSE, DBATU/A.G Patil Institute Of Technology Solapur, Email: jyotikhandekar1512@gmail.com)
*(CSE, DBATU/A.G Patil Institute Of Technology Solapur, Email: kaleprakash3532@gmail.com)
*(CSE, DBATU/A.G Patil Institute Of Technology Solapur,Email: aishwaryakeshi@gmail.com)

----------**********----------

Abstract:

BeyondPeaceApp is an AI-powered mental wellness application designed to support individuals dealing with stress, anxiety, and emotional challenges. Many people avoid seeking help due to stigma or lack of access, which delays proper treatment. This app provides early support through an intelligent chatbot, relaxation techniques, and emergency assistance features. It includes a nearby hospital locator and secure medical report storage for better accessibility. The system uses Flutter for cross-platform development and Firebase for backend services and data management. The architecture ensures scalability, security, and efficient performance. The application acts as a first-level support system and not a replacement for professional healthcare. It helps users take timely action and promotes mental health awareness. Overall, the project combines technology and social impact to provide accessible mental wellness support.

Keywords —: **Mental Health, AI Chatbot, Emotional Support System, Stress Management, Emergency Alert System, Healthcare Assistance, Mobile Application, Flutter, Firebase, Cloud Database, Location Based Services, Mental Wellness**.

----------**********----------

I. INTRODUCTION

In recent years, mental health issues such as stress, anxiety, and depression have increased significantly due to academic pressure, work stress, and changing lifestyles. Despite the growing need for mental health support, many individuals hesitate to seek professional help because of social stigma, lack of awareness, or limited access to healthcare services. This often results in delayed intervention, which can worsen the overall condition of individuals. To address this problem, BeyondPeaceApp is proposed as an AI-powered mental wellness support system that provides early assistance and guidance. The application includes features such as an intelligent chatbot for emotional support, guided relaxation exercises, an emergency alert system, and a nearby hospital locator. These features are designed to offer immediate help, reduce mental stress, and encourage users to take timely action during critical situations. The system is developed using Flutter for cross-platform mobile application development and Firebase for backend services, including authentication, real-time database, and secure cloud storage. The architecture follows a modular approach, separating frontend, backend, and database layers to ensure scalability, maintainability, and security. BeyondPeaceApp acts as a first-level support system, bridging the gap between users and healthcare services while promoting mental health awareness and accessibility.

II. LITERATURE REVIEW

Mental health has become a major area of research due to the increasing cases of stress, anxiety, and depression worldwide. Many mobile applications have been developed to support mental wellness, mainly focusing on meditation, mood

tracking, and guided therapy. Applications like Headspace and Calm help users manage stress through relaxation techniques. However, these apps mainly focus on mindfulness and lack emergency support features. Recent advancements show the use of Artificial Intelligence in mental health applications. AI chatbots are used to provide emotional support by analyzing user input and responding with helpful suggestions. These systems improve accessibility to mental health resources, especially for users who hesitate to seek professional help. However, most AI-based solutions are limited in handling critical situations. Location-based healthcare services are also used in various applications to help users find nearby hospitals and clinics. These systems are useful in emergencies but are usually developed as separate applications. They are not integrated with mental wellness platforms, which reduces their overall effectiveness in providing complete support. Based on existing research, there is a need for a unified platform that combines mental wellness, AI support, emergency response, and healthcare services. BeyondPeaceApp addresses this gap by integrating all these features into a single application. This improves accessibility, enables early intervention, and provides a more comprehensive mental health support system.

III. SYSTEM ARCHITECTURE

The proposed system follows a three-tier client-server architecture consisting of a presentation layer, application logic layer, and database layer. The architecture ensures modularity, scalability, and secure data handling for mental health support services.

Presentation Layer The presentation layer is developed using Flutter, providing a responsive and user-friendly mobile interface. It includes modules such as user login/registration, AI chatbot interface, emergency alert button, hospital locator, and medical report dashboard. The UI is designed with simple navigation and accessibility to ensure ease of use for all age groups.

Application Logic Layer The application logic layer manages core functionalities such as user authentication, chatbot processing, emergency handling, and location services. APIs handle communication between frontend and backend. The AI chatbot processes user inputs to detect stress-related patterns and generate supportive responses. Emergency triggers activate location capture and notification services.

Database Layer The database layer is implemented using Firebase, which provides authentication, real-time database, and cloud storage. It stores user profiles, chat history, emergency contacts, and medical reports securely. Indexed data structures ensure efficient retrieval and real-time updates.

External API Integration The system integrates third-party APIs for location and mapping services. These APIs fetch realtime user location and display nearby hospitals. This integration enables quick access to healthcare facilities during emergencies.

IV. RESULT DISCUSSION

The system was tested under various scenarios to evaluate performance and reliability. During testing, the AI chatbot successfully responded to stress-related inputs with appropriate supportive messages. The emergency alert system accurately captured user location and triggered notifications within seconds. The hospital locator effectively displayed nearby healthcare centers based on real-time GPS data. The application handled multiple user interactions smoothly due to cloud-based backend support. Medical report uploads and retrieval were performed securely without data loss. Overall, the system demonstrated reliable performance, user-friendly interaction, and effective integration of multiple features.

V. CONCLUSION AND FUTURE WORK

This project presented BeyondPeaceApp, an AI-based mental wellness support system integrating chatbot assistance, emergency response, hospital location services, and medical data management. The system demonstrates how modern technologies can be used to address real-world mental health challenges effectively. Future work includes implementing offline support features, integrating wearable devices for health monitoring, enhancing AI capabilities with advanced sentiment analysis, adding multilingual support, and connecting users with professional therapists. These improvements will further enhance usability, accessibility, and system effectiveness.

VI. REFERENCE

[1] S. Dixit et al., "AI-Powered Mental Health Chatbot," International Journal for Research in Applied Science & Engineering Technology, 2025.
[2] H. Li et al., "Systematic Review and Meta-Analysis of AI-Based Conversational Agents for Mental Health," npj Digital Medicine, vol. 6, 2023.
[3] "Artificial Intelligence-Enabled Chatbots in Mental Health: A Systematic Review," Computer Modeling in Engineering & Sciences, 2022.
[4] Shahzadhi Nyakhar and H. Wang, "Effectiveness of AI Chatbots on Mental Health & Well-being in College Students," Frontiers in Psychiatry, 2025.
[5] R. Kiruthika et al., "AI Chatbot for Mental Health," ShodhKosh Journal, 2024.
[6] G. Rajshekar et al., "AI Chat-Bot for Mental Health Support," Journal of Scientific Research and Technology, 2025.
[7] Inkster et al., "Applications of Artificial Intelligence in Mental Health," BMC Psychiatry, 2025.

