

# AI Mental Health Check-In Bot

## **Abstract:**

Students and working professionals now have serious concerns about mental health and emotional well-being, particularly in fast-paced academic and digital environments. Regular self-reflection and early detection of stress and burnout patterns are still difficult, though. This project introduces an AI-based Mental Health Check-in Bot, a clever and user-focused system that uses data-driven insights to help daily emotional self-evaluation and enhance mental wellbeing. By reporting their mood, stress level, energy level, sleep quality, and optional literary reflections, users can complete quick daily check-ins using the suggested system. The system analyses user input to identify sentiment, emotional tone, and stress-related trends across time using Natural Language Processing (NLP) and machine learning approaches. The program also uses rule-based risk assessment and trend analysis to find any signs of ongoing stress or burnout. The system includes an AI-powered conversational assistant that engages users in sympathetic conversation and offers tailored, non-clinical well-being recommendations like stress management techniques, journaling prompts, and relaxation exercises in addition to tracking emotional trends through interactive visual dashboards. The platform's design places a high priority on privacy, ethical use of AI, and making it obvious that it is not a medical diagnosis tool. This research shows how intelligent systems may be used to enable early intervention, foster emotional resilience, and foster self-awareness in a responsible and approachable way by fusing AI-driven text analysis, behavioural trend analytics, and human-centered design principles.

**Keywords:** Artificial Intelligence, Mental Health Monitoring, Natural Language Processing, Sentiment Analysis, Burnout Detection, Conversational AI, Behavioral Analytics.

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